

## DATA REPORTING QUALIFIERS- INORGANIC

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

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

## LAB CHRONICLE

<b>OrderID:</b>	Q2600	<b>OrderDate:</b>	7/14/2025 2:21:01 PM
<b>Client:</b>	T&A Construction Inc	<b>Project:</b>	Kingsland Point Park Water Main
<b>Contact:</b>	Garrett Johnson	<b>Location:</b>	D41,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>Q2600-01</b>	<b>TRENCH</b>	<b>SOIL</b>			<b>07/14/25 13:00</b>			<b>07/14/25</b>
			Cyanide	9012B		07/16/25	07/16/25 10:31	
			Hexavalent Chromium	7196A		07/16/25	07/16/25 16:04	
			pH	9045D			07/15/25 09:15	
<b>Q2600-02</b>	<b>TRENCH</b>	<b>SOIL</b>			<b>07/14/25 13:00</b>			<b>07/14/25</b>
			Ignitability	1030			07/15/25 14:15	
<b>Q2600-05</b>	<b>STOCK-PILE</b>	<b>SOIL</b>			<b>07/14/25 13:10</b>			<b>07/14/25</b>
			Cyanide	9012B		07/16/25	07/16/25 10:31	
			Hexavalent Chromium	7196A		07/16/25	07/16/25 16:05	
			pH	9045D			07/15/25 09:25	
<b>Q2600-06</b>	<b>STOCK-PILE</b>	<b>SOIL</b>			<b>07/14/25 13:10</b>			<b>07/14/25</b>
			Ignitability	1030			07/15/25 14:23	
<b>Q2600-09</b>	<b>END-OF-TRENCH</b>	<b>SOIL</b>			<b>07/14/25 13:20</b>			<b>07/14/25</b>
			Cyanide	9012B		07/16/25	07/16/25 10:31	

### LAB CHRONICLE

Q2600-10	END-OF-TRENCH	SOIL	Hexavalent Chromium	7196A	07/16/25	07/16/25 16:06	07/14/25 13:20	07/14/25
			pH	9045D		07/15/25 09:30		
			Ignitability	1030		07/15/25 14:30		



# SAMPLE DATA

## Report of Analysis

Client:	T&A Construction Inc	Date Collected:	07/14/25 13:00
Project:	Kingsland Point Park Water Main	Date Received:	07/14/25
Client Sample ID:	TRENCH	SDG No.:	Q2600
Lab Sample ID:	Q2600-01	Matrix:	SOIL
		% Solid:	75.5

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.076	J	1	0.053	0.32	mg/Kg	07/16/25 08:10	07/16/25 10:31	9012B
Hexavalent Chromium	0.092	U	1	0.092	0.53	mg/Kg	07/16/25 12:40	07/16/25 16:04	7196A
pH	7.55	H	1	0	0	pH		07/15/25 09:15	9045D

Comments: pH result reported at temperature 24.6 °C

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

## Report of Analysis

Client:	T&A Construction Inc	Date Collected:	07/14/25 13:00
Project:	Kingsland Point Park Water Main	Date Received:	07/14/25
Client Sample ID:	TRENCH	SDG No.:	Q2600
Lab Sample ID:	Q2600-02	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ignitability	NO		1	0	0	oC		07/15/25 14:15	1030

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:	T&A Construction Inc	Date Collected:	07/14/25 13:10
Project:	Kingsland Point Park Water Main	Date Received:	07/14/25
Client Sample ID:	STOCK-PILE	SDG No.:	Q2600
Lab Sample ID:	Q2600-05	Matrix:	SOIL
		% Solid:	82.1

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.051	U	1	0.051	0.30	mg/Kg	07/16/25 08:10	07/16/25 10:31	9012B
Hexavalent Chromium	0.084	U	1	0.084	0.48	mg/Kg	07/16/25 12:40	07/16/25 16:05	7196A
pH	7.68	H	1	0	0	pH		07/15/25 09:25	9045D

Comments: pH result reported at temperature 24.4 °C

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

## Report of Analysis

Client:	T&A Construction Inc	Date Collected:	07/14/25 13:10
Project:	Kingsland Point Park Water Main	Date Received:	07/14/25
Client Sample ID:	STOCK-PILE	SDG No.:	Q2600
Lab Sample ID:	Q2600-06	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ignitability	NO		1	0	0	oC		07/15/25 14:23	1030

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:	T&A Construction Inc	Date Collected:	07/14/25 13:20
Project:	Kingsland Point Park Water Main	Date Received:	07/14/25
Client Sample ID:	END-OF-TRENCH	SDG No.:	Q2600
Lab Sample ID:	Q2600-09	Matrix:	SOIL
		% Solid:	85.2

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.047	J	1	0.047	0.28	mg/Kg	07/16/25 08:10	07/16/25 10:31	9012B
Hexavalent Chromium	0.080	U	1	0.080	0.46	mg/Kg	07/16/25 12:40	07/16/25 16:06	7196A
pH	7.24	H	1	0	0	pH		07/15/25 09:30	9045D

Comments: pH result reported at temperature 24.1 °C

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

## Report of Analysis

Client:	T&A Construction Inc	Date Collected:	07/14/25 13:20
Project:	Kingsland Point Park Water Main	Date Received:	07/14/25
Client Sample ID:	END-OF-TRENCH	SDG No.:	Q2600
Lab Sample ID:	Q2600-10	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ignitability	NO		1	0	0	oC		07/15/25 14:30	1030

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

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits



# QC RESULT SUMMARY



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

### Initial and Continuing Calibration Verification

**Client:** T&A Construction Inc

**SDG No.:** Q2600

**Project:** Kingsland Point Park Water Main

**RunNo.:** LB136472

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
pH		pH	7.01	7	100	90-110	07/15/2025
Sample ID:	CCV1						
pH		pH	2.01	2.00	101	90-110	07/15/2025
Sample ID:	CCV2						
pH		pH	12.02	12.00	100	90-110	07/15/2025

## Initial and Continuing Calibration Verification

**Client:** T&A Construction Inc

**SDG No.:** Q2600

**Project:** Kingsland Point Park Water Main

**RunNo.:** LB136498

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: <b>ICV1</b> Cyanide	mg/L	0.094	0.099	95	90-110	07/16/2025
Sample ID: <b>CCV1</b> Cyanide	mg/L	0.24	0.25	96	90-110	07/16/2025
Sample ID: <b>CCV2</b> Cyanide	mg/L	0.24	0.25	96	90-110	07/16/2025
Sample ID: <b>CCV3</b> Cyanide	mg/L	0.25	0.25	100	90-110	07/16/2025

## Initial and Continuing Calibration Verification

**Client:** T&A Construction Inc

**SDG No.:** Q2600

**Project:** Kingsland Point Park Water Main

**RunNo.:** LB136507

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: <b>ICV</b> Hexavalent Chromium	mg/L	0.497	0.5	99	90-110	07/16/2025
Sample ID: <b>CCV1</b> Hexavalent Chromium	mg/L	0.492	0.5	98	90-110	07/16/2025
Sample ID: <b>CCV2</b> Hexavalent Chromium	mg/L	0.495	0.5	99	90-110	07/16/2025
Sample ID: <b>CCV3</b> Hexavalent Chromium	mg/L	0.497	0.5	99	90-110	07/16/2025

### Initial and Continuing Calibration Blank Summary

**Client:** T&A Construction Inc

**SDG No.:** Q2600

**Project:** Kingsland Point Park Water Main

**RunNo.:** LB136498

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>ICB1</b> Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	07/16/2025
Sample ID: <b>CCB1</b> Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	07/16/2025
Sample ID: <b>CCB2</b> Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	07/16/2025
Sample ID: <b>CCB3</b> Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	07/16/2025

### Initial and Continuing Calibration Blank Summary

**Client:** T&A Construction Inc

**SDG No.:** Q2600

**Project:** Kingsland Point Park Water Main

**RunNo.:** LB136507

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>ICB</b> Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	07/16/2025
Sample ID: <b>CCB1</b> Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	07/16/2025
Sample ID: <b>CCB2</b> Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	07/16/2025
Sample ID: <b>CCB3</b> Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	07/16/2025



## Preparation Blank Summary

**Client:** T&A Construction Inc

**SDG No.:** Q2600

**Project:** Kingsland Point Park Water Main

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>PB168862BL</b> Cyanide	mg/Kg	< 0.1250	0.1250	U	0.042	0.25	07/16/2025
Sample ID: <b>PB168870BL</b> Hexavalent Chromium	mg/Kg	< 0.2000	0.2000	U	0.07	0.4	07/16/2025

## Matrix Spike Summary

<b>Client:</b>	T&A Construction Inc	<b>SDG No.:</b>	Q2600
<b>Project:</b>	Kingsland Point Park Water Main	<b>Sample ID:</b>	Q2598-01
<b>Client ID:</b>	OK-01-071425MS	<b>Percent Solids for Spike Sample:</b>	96.8

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	1280		0.071	U	1330	40	96		07/16/2025

## Matrix Spike Summary

<b>Client:</b>	T&A Construction Inc	<b>SDG No.:</b>	Q2600
<b>Project:</b>	Kingsland Point Park Water Main	<b>Sample ID:</b>	Q2598-01
<b>Client ID:</b>	OK-01-071425MS	<b>Percent Solids for Spike Sample:</b>	96.8

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	85-115	37.1		0.071	U	41.3	2	90		07/16/2025

## Matrix Spike Summary

<b>Client:</b>	T&A Construction Inc	<b>SDG No.:</b>	Q2600
<b>Project:</b>	Kingsland Point Park Water Main	<b>Sample ID:</b>	Q2598-01
<b>Client ID:</b>	OK-01-071425MS	<b>Percent Solids for Spike Sample:</b>	96.8

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	31.2		0.071	U	41.3	2	76		07/16/2025

## Matrix Spike Summary

<b>Client:</b>	T&A Construction Inc	<b>SDG No.:</b>	Q2600
<b>Project:</b>	Kingsland Point Park Water Main	<b>Sample ID:</b>	Q2600-09
<b>Client ID:</b>	END-OF-TRENCHMS	<b>Percent Solids for Spike Sample:</b>	85.2

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	2.10		0.047	J	2.3	1	89		07/16/2025

### Matrix Spike Summary

<b>Client:</b>	T&A Construction Inc	<b>SDG No.:</b>	Q2600
<b>Project:</b>	Kingsland Point Park Water Main	<b>Sample ID:</b>	Q2600-09
<b>Client ID:</b>	END-OF-TRENCHMSD	<b>Percent Solids for Spike Sample:</b>	85.2

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	1.90		0.047	J	2.3	1	81		07/16/2025

## Duplicate Sample Summary

<b>Client:</b> T&A Construction Inc	<b>SDG No.:</b> Q2600
<b>Project:</b> Kingsland Point Park Water Main	<b>Sample ID:</b> Q2592-01
<b>Client ID:</b> WC-SOIL-20250711DUP	<b>Percent Solids for Spike Sample:</b> 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
pH	pH	+/-20	6.94		6.96		1	0.29		07/15/2025

### Duplicate Sample Summary

<b>Client:</b>	T&A Construction Inc	<b>SDG No.:</b>	Q2600
<b>Project:</b>	Kingsland Point Park Water Main	<b>Sample ID:</b>	Q2598-01
<b>Client ID:</b>	OK-01-071425DUP	<b>Percent Solids for Spike Sample:</b>	96.8

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.071	U	0.071	U	1	0		07/16/2025



## Duplicate Sample Summary

<b>Client:</b> T&A Construction Inc <b>Project:</b> Kingsland Point Park Water Main <b>Client ID:</b> END-OF-TRENCHDUP	<b>SDG No.:</b> Q2600 <b>Sample ID:</b> Q2600-09 <b>Percent Solids for Spike Sample:</b> 85.2
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Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.047	J	0.047	U	1	200	*	07/16/2025

### Duplicate Sample Summary

<b>Client:</b>	T&A Construction Inc	<b>SDG No.:</b>	Q2600
<b>Project:</b>	Kingsland Point Park Water Main	<b>Sample ID:</b>	Q2600-09
<b>Client ID:</b>	END-OF-TRENCHMSD	<b>Percent Solids for Spike Sample:</b>	85.2

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	2.10		1.90		1	10		07/16/2025

### Duplicate Sample Summary

<b>Client:</b>	T&A Construction Inc	<b>SDG No.:</b>	Q2600
<b>Project:</b>	Kingsland Point Park Water Main	<b>Sample ID:</b>	Q2605-04
<b>Client ID:</b>	V897DUP	<b>Percent Solids for Spike Sample:</b>	100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Ignitability	oC	+/-20	NO		NO		1	0		07/15/2025

### Laboratory Control Sample Summary

<b>Client:</b>	T&A Construction Inc	<b>SDG No.:</b>	Q2600
<b>Project:</b>	Kingsland Point Park Water Main	<b>Run No.:</b>	LB136498

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB168862BS							
Cyanide	mg/Kg	5	4.80		96	1	85-115	07/16/2025

### Laboratory Control Sample Summary

<b>Client:</b>	T&A Construction Inc	<b>SDG No.:</b>	Q2600
<b>Project:</b>	Kingsland Point Park Water Main	<b>Run No.:</b>	LB136507

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB168870BS							
Hexavalent Chromium	mg/Kg	20	19.8		99	1	84-110	07/16/2025



# RAW DATA

## Analytical Summary Report

Analysis Method: 9045D

Analyst By : jignesh

Parameter: pH

Supervisor Review By : Iwona

Run Number: LB136472

Slope : 98.6

BalanceID: WC SC-7

pH Meter ID : WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3178
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER, COLOR CD 475ML	W3191
buffer solution pH 7 yellow	W3217
Buffer Solution, PH2 (500ml)	W3161
pH 12.00 Buffer	W3200

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

True Value of CCV1 = 2.00 Control Limits[+/- 0.05].

True Value of CCV2 = 12.00 Control Limits[+/- 0.05].

Seq	LabID	DF	Matrix	Weight (gm)	Volume (ml)	Temperature (°C)	Result (pH)	Anal Date	Anal Time
1	CAL1	1	Water	NA	NA	20.2	4.01	07/15/2025	08:40
2	CAL2	1	Water	NA	NA	20.2	7.00	07/15/2025	08:41
3	CAL3	1	Water	NA	NA	20.2	10.02	07/15/2025	08:42
4	ICV	1	Water	NA	NA	20.2	7.01	07/15/2025	08:45
5	CCV1	1	Water	NA	NA	20.2	2.01	07/15/2025	08:47
6	Q2592-01	1	Solid	20.02	20	22.8	6.94	07/15/2025	09:00
7	Q2592-01DUP	1	Solid	20.03	20	22.9	6.96	07/15/2025	09:02
8	Q2600-01	1	Solid	20.02	20	24.6	7.55	07/15/2025	09:15
9	Q2600-05	1	Solid	20.03	20	24.4	7.68	07/15/2025	09:25
10	Q2600-09	1	Solid	20.02	20	24.1	7.24	07/15/2025	09:30
11	CCV2	1	Water	NA	NA	20.2	12.02	07/15/2025	09:33

WORKLIST(Hardcopy Internal Chain)

136472

WorkList Name : pbs q2600      WorkList ID : 190717      Department : Wet-Chemistry      Date : 07-15-2025 08:20:24

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2592-01	WC-SOIL-20250711	Solid	pH	Cool 4 deg C	PARS02	D51	07/11/2025	9045D
Q2600-01	TRENCH	Solid	pH	Cool 4 deg C	TACO01	D41	07/14/2025	9045D
Q2600-05	STOCK-PILE	Solid	pH	Cool 4 deg C	TACO01	D41	07/14/2025	9045D
Q2600-09	END-OF-TRENCH	Solid	pH	Cool 4 deg C	TACO01	D41	07/14/2025	9045D

Date/Time 07/15/25 08:30  
Raw Sample Received by: [Signature]  
Raw Sample Relinquished by: [Signature]

Date/Time 07/15/25 13:30  
Raw Sample Received by: [Signature]  
Raw Sample Relinquished by: [Signature]



## Analytical Summary Report

**Analysis Method:** 1030

**Parameter:** Ignitability

**Run Number:** LB136483

**Reviewed By:** rubina

**Supervisor Review By:** Iwona

Seq	LabID	ClientID	DF	matrix	Result Status	Burning Rate	Anal Date	Anal Time
1	Q2571-04	TP-18	1	Solid	NO	0.00	07/15/2025	14:00
2	Q2592-02	WC-SOIL-20250711	1	Solid	NO	0.00	07/15/2025	14:07
3	Q2600-02	TRENCH	1	Solid	NO	0.00	07/15/2025	14:15
4	Q2600-06	STOCK-PILE	1	Solid	NO	0.00	07/15/2025	14:23
5	Q2600-10	END-OF-TRENCH	1	Solid	NO	0.00	07/15/2025	14:30
6	Q2605-01	V908	1	Solid	NO	0.00	07/15/2025	14:38
7	Q2605-02	VB16135	1	Solid	NO	0.00	07/15/2025	14:45
8	Q2605-03	VB15061	1	Solid	NO	0.00	07/15/2025	14:52
9	Q2605-04	V897	1	Solid	NO	0.00	07/15/2025	15:00
10	Q2605-04DUP	V897DUP	1	Solid	NO	0.00	07/15/2025	15:08

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

LB136498

Test results

Aquakem 7.2AQ1

Page: 1

Alliance Technical Group  
284 Sheffield Street, Mountainside, NJ 07092

7/16/2025 11:04

Reviewed by : RM

Instrument ID : Konelab

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	93.717	0.0	0.076	
ICB1	-0.149	0.0	0.001	
CCV1	240.970	0.0	0.193	
CCB1	-0.006	0.0	0.001	
PB168862BL	-0.021	0.0	0.001	
PB168862BS	95.758	0.0	0.077	
HIGHPB168862	485.054	0.0	0.388	
Q2600-01	1.192	0.0	0.002	
Q2600-05	0.169	0.0	0.001	
Q2600-09	0.837	0.0	0.002	
Q2600-09DUP	0.701	0.0	0.001	
Q2600-09MS	36.188	0.0	0.030	
Q2600-09MSD	34.436	0.0	0.028	
CCV2	244.213	0.0	0.196	
CCB2	0.451	0.0	0.001	
Q2614-01	3.031	0.0	0.003	
LOWPB168862	9.459	0.0	0.008	
CCV3	252.080	0.0	0.202	
CCB3	0.356	0.0	0.001	
N	19			
Mean	78.865			
SD	133.1047			
CV%	168.78			

97% (90-110)

07/16/2025

RM

94% (90-110)

07/16/2025

RM

Aquakem v. 7.2AQ1

Results from time period:

Wed Jul 16 10:24:03 2025

Wed Jul 16 11:02:35 2025

Sample Id	Sam/Ctr/c/	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	-0.1261	µg/l	7/16/2025 8:53:48	
5.0PPBCN	A	Total CN	P	4.7043	µg/l	7/16/2025 8:53:49	
10PPBCN	A	Total CN	P	9.9066	µg/l	7/16/2025 8:53:50	
50PPBCN	A	Total CN	P	50.521	µg/l	7/16/2025 8:53:51	
100PPBCN	A	Total CN	P	100.0666	µg/l	7/16/2025 8:53:52	
250PPBCN	A	Total CN	P	249.9766	µg/l	7/16/2025 8:53:53	
500PPBCN	A	Total CN	P	499.9511	µg/l	7/16/2025 8:53:54	
ICV1	S	Total CN	P	93.7168	µg/l	7/16/2025 10:24:04	
ICB1	S	Total CN	P	-0.149	µg/l	7/16/2025 10:24:05	
CCV1	S	Total CN	P	240.97	µg/l	7/16/2025 10:24:08	
CCB1	S	Total CN	P	-0.0062	µg/l	7/16/2025 10:24:10	
PB168862BL	S	Total CN	P	-0.0215	µg/l	7/16/2025 10:24:11	
PB168862BS	S	Total CN	P	95.7585	µg/l	7/16/2025 10:24:13	
HIGHPB168862	S	Total CN	P	485.0539	µg/l	7/16/2025 10:31:41	
Q2600-01	S	Total CN	P	1.1919	µg/l	7/16/2025 10:31:42	
Q2600-05	S	Total CN	P	0.1694	µg/l	7/16/2025 10:31:43	
Q2600-09	S	Total CN	P	0.8371	µg/l	7/16/2025 10:31:44	
Q2600-09DUP	S	Total CN	P	0.7007	µg/l	7/16/2025 10:39:10	
Q2600-09MS	S	Total CN	P	36.1885	µg/l	7/16/2025 10:39:14	
Q2600-09MSD	S	Total CN	P	34.4362	µg/l	7/16/2025 10:39:15	
CCV2	S	Total CN	P	244.2132	µg/l	7/16/2025 10:39:17	
CCB2	S	Total CN	P	0.4512	µg/l	7/16/2025 10:39:19	
Q2614-01	S	Total CN	P	3.0314	µg/l	7/16/2025 10:39:20	
LOWPB168862	S	Total CN	P	9.4593	µg/l	7/16/2025 11:02:30	
CCV3	S	Total CN	P	252.0805	µg/l	7/16/2025 11:02:32	
CCB3	S	Total CN	P	0.3561	µg/l	7/16/2025 11:02:35	

Calibration results Aquakem 7.2AQ1 Page: 1

Alliance Technical Group  
284 Sheffield Street, Mountainside, NJ 07092

7/16/2025 8:58

Reviewed by : RM Instrument ID : Konelab

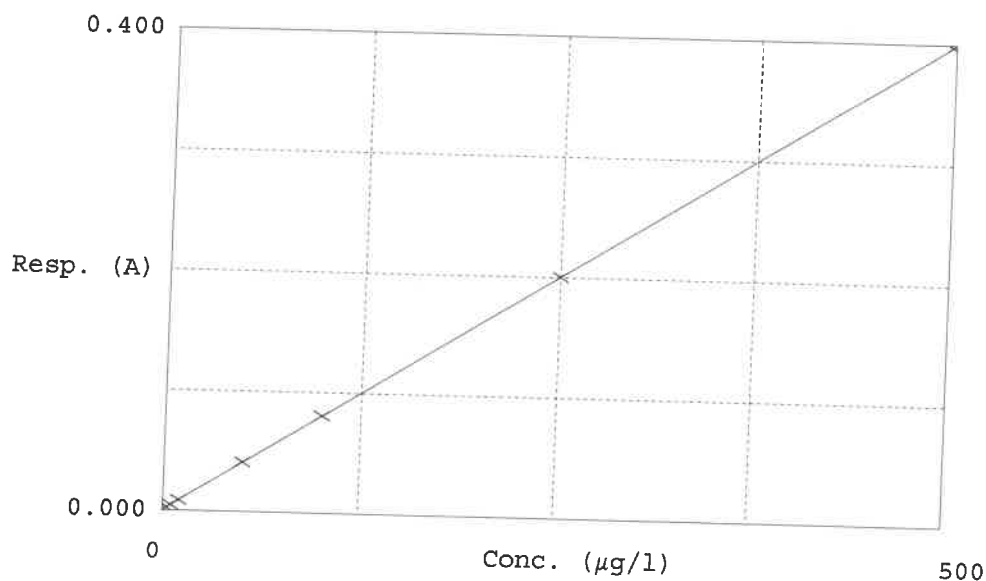
Test Total CN

Accepted 7/16/2025 8:58

Factor 1253  
Bias 0.001

Coeff. of det. 0.999998

Errors



	Calibrator	Response	Calc. con.	Conc.	Re Errors
1	0.0PPBCN	0.001	-0.1261	0.0000	-
2	5.0PPBCN	0.005	4.7043	5.0000	-5.9
3	10PPBCN	0.009	9.9066	10.0000	-0.9
4	50PPBCN	0.041	50.5210	50.0000	1.0
5	100PPBCN	0.081	100.0666	100.0000	0.1
6	250PPBCN	0.200	249.9766	250.0000	0.0
7	500PPBCN	0.400	499.9511	500.0000	0.0

07/16/2025  
RM

## Analytical Summary Report

Analysis Method: 7196A

ANALYST: rubina

Parameter: ~~Hexavalent Chromium~~

SUPERVISOR REVIEW BY: Iwona

Run Number: LB136507

pH Meter ID: WC pH Meter-1

Reagent/Standard	Lot/Log #
hexavalent chromium color reagent	WP113966
5N sulfuric acid	WP112831
HNO3 Hex-Chrome, 5M	WP112830
Hexchrome Cleaning Solution	WP113087

Intercept: 0.0004

Slope: 0.7661

Regression: 0.999955

Seq	Lab ID	True Value (mg/l)	DF	Initial Vol (ml)	Final Vol (ml)	pH HNO3	pH H2SO4	Absorb.at 540nm		Absorbance Difference	Result (mg/L)	%D	Anal Date	Anal Time
								Backgrnd	Color					
1	CAL1	0	1	100	100	7.56	1.75	0.000	0.000	0.000	-0.00		07/16/2025	15:45
2	CAL2	0.01	1	100	100	7.25	2.10	0.000	0.008	0.008	0.009	-10	07/16/2025	15:46
3	CAL3	0.025	1	100	100	7.64	1.68	0.000	0.020	0.020	0.025	0	07/16/2025	15:47
4	CAL4	0.05	1	100	100	7.41	1.95	0.000	0.039	0.039	0.050	0	07/16/2025	15:48
5	CAL5	0.1	1	100	100	7.34	2.35	0.000	0.080	0.080	0.103	3	07/16/2025	15:49
6	CAL6	0.5	1	100	100	7.16	2.45	0.000	0.378	0.378	0.492	-1.6	07/16/2025	15:50
7	CAL7	1	1	100	100	7.76	2.29	0.000	0.769	0.769	1.003	0.3	07/16/2025	15:51

## Analytical Summary Report

Analysis Method: 7196A

ANALYST:rubina

Parameter: Hexavalent Chromium

SUPERVISOR REVIEW BY:Iwona

Run Number: LB136507

pH Meter ID:WC pH Meter-1

Seq	Lab ID	True Value	DF	Initial Vol (ml/gm)	Final Vol (ml)	pH HN03	pH H2SO4	Absorb.at540nm		Absorbance Difference	Intermediate Result (mg/L)	Anal Date	Anal Time
								Backgrnd	Color				
1	ICV	0.5	1	100	100	7.57	2.43	0.000	0.381	0.381	0.497	07/16/2025	15:52
2	ICB		1	100	100	7.69	1.69	0.000	0.000	0.000	-0.001	07/16/2025	15:53
3	CCV1	0.5	1	100	100	7.43	1.74	0.000	0.377	0.377	0.492	07/16/2025	15:54
4	CCB1		1	100	100	7.84	1.86	0.000	0.001	0.001	0.001	07/16/2025	15:55
5	RL Check	0.01	1	100	100	7.48	1.92	0.000	0.009	0.009	0.011	07/16/2025	15:56
6	PB168870BL		1	2.50	100	7.29	2.08	0.000	0.001	0.001	0.001	07/16/2025	15:57
7	PB168870BS	20	1	2.50	100	7.46	2.17	0.000	0.379	0.379	0.494	07/16/2025	15:58
8	Q2598-01		1	2.53	100	7.51	2.29	0.000	0.001	0.001	0.001	07/16/2025	15:59
9	Q2598-01DU		1	2.54	100	7.72	2.34	0.000	0.001	0.001	0.001	07/16/2025	16:00
10	Q2598-01MS	40	2	2.52	100	7.64	2.47	0.000	0.292	0.292	0.381	07/16/2025	16:01
11	Q2598-01MS	1284	40	2.51	100	7.69	1.58	0.000	0.594	0.594	0.775	07/16/2025	16:02
12	Q2598-01MS	40	2	2.56	100	7.56	1.94	0.000	0.353	0.353	0.460	07/16/2025	16:03
13	Q2600-01		1	2.52	100	7.51	1.51	0.014	0.015	0.001	0.001	07/16/2025	16:04
14	Q2600-05		1	2.55	100	7.48	2.38	0.017	0.017	0.000	-0.001	07/16/2025	16:05
15	Q2600-09		1	2.57	100	7.19	1.67	0.011	0.011	0.000	-0.001	07/16/2025	16:06
16	CCV2	0.5	1	100	100	7.09	1.91	0.000	0.380	0.380	0.495	07/16/2025	16:07
17	CCB2		1	100	100	7.84	2.09	0.000	0.001	0.001	0.001	07/16/2025	16:08
18	Q2611-01		1	2.52	100	7.79	2.18	0.014	0.014	0.000	-0.001	07/16/2025	16:09
19	Q2614-01		1	2.53	100	7.68	2.45	0.038	0.038	0.000	-0.001	07/16/2025	16:10
20	CCV3	0.5	1	100	100	7.53	1.62	0.000	0.381	0.381	0.497	07/16/2025	16:11
21	CCB3		1	100	100	7.27	1.76	0.000	0.000	0.000	-0.001	07/16/2025	16:12

SOP ID : M9012B-Total, Amenable and Reactive Cyanide-21

SDG No : N/A

Matrix : SOIL

Pippete ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#1

Block ID : MC-1,MC-2

Weigh By : JP

Start Digest Date: 07/16/2025 Time : 08:10 Temp : 123 °C

End Digest Date: 07/16/2025 Time : 09:40 Temp : 127 °C

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : WC CYANIDE

Prep Technician Signature: JP

Supervisor Signature: 12

Standard Name	MLS USED	STD REF. # FROM LOG
LCSS	1.0ML	WP113838
MS/MSD SPIKE SOL.	0.40ML	WP113837
PBS003	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50.0ML	WP113836
50% v/v H2SO4	5.0ML	WP112826
51% w/v MgCL2	2.0ML	WP112827
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
S0	S0	N/A	N/A
S5.0	S5.0	N/A	N/A
S10.0	S10.0	N/A	N/A
S100.0	S100.0	N/A	N/A
S250.0	S250.0	N/A	N/A
S500.0	S500.0	N/A	N/A
ICV	ICV	0.5ML	W3012
ICB	ICB	N/A	N/A
CCV	CCV	N/A	N/A
CCB	CCB	N/A	N/A
Midrange	Midrange	N/A	N/A
HIGHSTD	HIGHSTD	5.0ML	WP113837
LOWSTD	LOWSTD	0.1ML	WP113837

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
07/16/2025 09:50	JP / CDC	RH (WV)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB168862BL	PBS862	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
PB168862BS	LCS862	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2600-01	TRENCH	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2600-05	STOCK-PILE	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2600-09	END-OF-TRENCH	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2600-09DUP	END-OF-TRENCHDUP	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2600-09MS	END-OF-TRENCHMS	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2600-09MSD	END-OF-TRENCHMSD	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q2614-01	HR-MCN-COMP-01	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A



# WORKLIST(Hardcopy Internal Chain)

WorkList Name : cn s q2600      WorkList ID : 190714      Department : Distillation      Date : 07-15-2025 08:17:00

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2600-01	A TRENCH	Solid	Cyanide	Cool 4 deg C	TACO01	D41	07/14/2025	9012B
Q2600-05	A STOCK-PILE	Solid	Cyanide	Cool 4 deg C	TACO01	D41	07/14/2025	9012B
Q2600-09	A END-OF-TRENCH	Solid	Cyanide	Cool 4 deg C	TACO01	D41	07/14/2025	9012B

Date/Time 07/16/2025 07:40  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]

Date/Time 07/16/2025 08:40  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

WorkList Name : cn s q2614      WorkList ID : 190749      Department : Distillation      Date : 07-16-2025 07:33:05

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2614-01	HR-MCN-COMP-01	Solid	Cyanide	Cool 4 deg C	PSEG03	D41	07/15/2025	9012B

Date/Time 07/16/2025 07:40  
Raw Sample Received by: TD WJC  
Raw Sample Relinquished by: DU SM

Date/Time 07/16/2025 08:40  
Raw Sample Received by: TD WJC  
Raw Sample Relinquished by: sp cule

SOP ID : M3060A,7196A-Hex.Chromium-27

SDG No : N/A

Matrix : SOIL

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#3

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

Weigh By : RM

Start Digest Date: 07/16/2025 Time : 12:40 Temp : 90 °C

End Digest Date: 07/16/2025 Time : 13:40 Temp : 95 °C

*libech* 07/16/2025 14:00 90i  
07/16/2025 15:00 94i

Digestion tube ID : M6054

Block Thermometer ID : WC-Block#1

Filter paper ID : 400213

Prep Technician Signature: *RM*

pH Meter ID : WC pH meter-1

Supervisor Signature: *12*

Standardized Name	MLS USED	STD REF. # FROM LOG
PRE-DIGESTION SPIKE	2.0ML	WP113880
INSOLUBLE SPIKE	0.02GM	W2202
POST-DIGESTION SPIKE	2.0ML	WP113880
LCSS	1.0ML	WP113881
PBS003	50.ML	W3112

Chemical Used	ML/SAMPLE USED	Lot Number
MAGNESIUM CHLORIDE	0.4GM	W3152
PHOSPHATE BUFFER	0.5ML	WP112903
HEX. DIGESTION SOLN.	50.0ML	WP113608
5M HNO3	5-7ML	WP112830
5N H2SO4	1-3ML	WP112831
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Vol(ml)	Comment
CAL1	CAL1	2.5ML	W3112
CAL2	CAL2	0.2ML	WP113955
CAL3	CAL3	0.5ML	WP113955
CAL4	CAL4	1ML	WP113955
CAL5	CAL5	0.2ML	WP113880
CAL6	CAL6	1ML	WP113880
CAL7	CAL7	2.0ML	WP113880
ICV	ICV	1ML	WP113881
ICB	ICB	2.5ML	W3112
CCV	CCV	1ML	WP113880
CCB	CCB	2.5ML	W3112

Extraction Conformance/Non-Conformance Comments:

N/A

07/16/2025 *RM*

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

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB168870BL	PB168870BL	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
PB168870BS	LCS870	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
Q2598-01DUP	OK-01-071425DUP	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
Q2598-01MSPre	OK-01-071425MSPRE	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
Q2598-01MS2Ins	OK-01-071425MS2INS	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
Q2598-01MS3Post	OK-01-071425MS3POST	2.56	100	N/A	N/A	N/A	N/A	N/A	N/A
Q2598-01	OK-01-071425	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A
Q2600-01	TRENCH	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
Q2600-05	STOCK-PILE	2.55	100	N/A	N/A	N/A	N/A	N/A	N/A
Q2600-09	END-OF-TRENCH	2.57	100	N/A	N/A	N/A	N/A	N/A	N/A
Q2611-01	EO-2-071525	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
Q2614-01	HR-MCN-COMP-01	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : HEX-071625

WorkList ID : 190751

Department : Distillation

Date : 07-16-2025 08:17:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2598-01	OK-01-071425	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	D41	07/14/2025	7196A
Q2600-01	TRENCH	Solid	Hexavalent Chromium	Cool 4 deg C	TACO01	D41	07/14/2025	7196A
Q2600-05	STOCK-PILE	Solid	Hexavalent Chromium	Cool 4 deg C	TACO01	D41	07/14/2025	7196A
Q2600-09	END-OF-TRENCH	Solid	Hexavalent Chromium	Cool 4 deg C	TACO01	D41	07/14/2025	7196A
Q2611-01	EO-02-071525	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	D41	07/15/2025	7196A
Q2614-01	HR-MCN-COMP-01	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	07/15/2025	7196A

Date/Time 07/16/2025 08:25  
 Raw Sample Received by: RM (wc)  
 Raw Sample Relinquished by: [Signature]

Date/Time 07/16/2025 14:30  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]

**Instrument ID:** WC PH METER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB136472**

Review By	jignesh	Review On	7/15/2025 10:37:41 AM
Supervise By	Iwona	Supervise On	7/15/2025 1:20:56 PM
SubDirectory	LB136472	Test	pH
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	W3178,W3093,W3191,W3217,W3161,W3200		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	07/15/25 08:40		Jignesh	OK
2	CAL2	CAL2	CAL	07/15/25 08:41		Jignesh	OK
3	CAL3	CAL3	CAL	07/15/25 08:42		Jignesh	OK
4	ICV	ICV	ICV	07/15/25 08:45		Jignesh	OK
5	CCV1	CCV1	CCV	07/15/25 08:47		Jignesh	OK
6	Q2592-01	WC-SOIL-20250711	SAM	07/15/25 09:00		Jignesh	OK
7	Q2592-01DUP	WC-SOIL-20250711D	DUP	07/15/25 09:02		Jignesh	OK
8	Q2600-01	TRENCH	SAM	07/15/25 09:15		Jignesh	OK
9	Q2600-05	STOCK-PILE	SAM	07/15/25 09:25		Jignesh	OK
10	Q2600-09	END-OF-TRENCH	SAM	07/15/25 09:30		Jignesh	OK
11	CCV2	CCV2	CCV	07/15/25 09:33		Jignesh	OK

**Instrument ID:** FLAME

**Daily Analysis Runlog For Sequence/QC Batch ID # LB136483**

Review By	rubina	Review On	7/15/2025 3:32:12 PM
Supervise By	Iwona	Supervise On	7/15/2025 3:33:00 PM
SubDirectory	LB136483	Test	Ignitability
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	Q2571-04	TP-18	SAM	07/15/25 14:00		rubina	OK
2	Q2592-02	WC-SOIL-20250711	SAM	07/15/25 14:07		rubina	OK
3	Q2600-02	TRENCH	SAM	07/15/25 14:15		rubina	OK
4	Q2600-06	STOCK-PILE	SAM	07/15/25 14:23		rubina	OK
5	Q2600-10	END-OF-TRENCH	SAM	07/15/25 14:30		rubina	OK
6	Q2605-01	V908	SAM	07/15/25 14:38		rubina	OK
7	Q2605-02	VB16135	SAM	07/15/25 14:45		rubina	OK
8	Q2605-03	VB15061	SAM	07/15/25 14:52		rubina	OK
9	Q2605-04	V897	SAM	07/15/25 15:00		rubina	OK
10	Q2605-04DUP	V897DUP	DUP	07/15/25 15:08		rubina	OK

**Instrument ID:** KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB136498**

Review By	rubina	Review On	7/16/2025 2:33:31 PM
Supervise By	Iwona	Supervise On	7/16/2025 3:08:59 PM
SubDirectory	LB136498	Test	Cyanide
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP113957,WP113958,WP113959,WP113960,WP113961,WP113962,WP113963		
ICV Standard	W3012		
CCV Standard	WP113958		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP112643,WP112900,WP113965		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	07/16/25 08:53		rubina	OK
2	5.0PPBCN	5.0PPBCN	CAL2	07/16/25 08:53		rubina	OK
3	10PPBCN	10PPBCN	CAL3	07/16/25 08:53		rubina	OK
4	50PPBCN	50PPBCN	CAL4	07/16/25 08:53		rubina	OK
5	100PPBCN	100PPBCN	CAL5	07/16/25 08:53		rubina	OK
6	250PPBCN	250PPBCN	CAL6	07/16/25 08:53		rubina	OK
7	500PPBCN	500PPBCN	CAL7	07/16/25 08:53		rubina	OK
8	ICV1	ICV1	ICV	07/16/25 10:24		rubina	OK
9	ICB1	ICB1	ICB	07/16/25 10:24		rubina	OK
10	CCV1	CCV1	CCV	07/16/25 10:24		rubina	OK
11	CCB1	CCB1	CCB	07/16/25 10:24		rubina	OK
12	PB168862BL	PB168862BL	MB	07/16/25 10:24		rubina	OK
13	PB168862BS	PB168862BS	LCS	07/16/25 10:24		rubina	OK
14	HIGHPB168862	HIGHPB168862	SAM	07/16/25 10:31		rubina	OK
15	Q2600-01	TRENCH	SAM	07/16/25 10:31		rubina	OK
16	Q2600-05	STOCK-PILE	SAM	07/16/25 10:31		rubina	OK
17	Q2600-09	END-OF-TRENCH	SAM	07/16/25 10:31		rubina	OK
18	Q2600-09DUP	END-OF-TRENCHDUP	DUP	07/16/25 10:39		rubina	OK



Instrument ID: KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB136498**

Review By	rubina	Review On	7/16/2025 2:33:31 PM
Supervise By	Iwona	Supervise On	7/16/2025 3:08:59 PM
SubDirectory	LB136498	Test	Cyanide
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP113957,WP113958,WP113959,WP113960,WP113961,WP113962,WP113963		
ICV Standard	W3012		
CCV Standard	WP113958		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP112643,WP112900,WP113965		

19	Q2600-09MS	END-OF-TRENCHMS	MS	07/16/25 10:39		rubina	OK
20	Q2600-09MSD	END-OF-TRENCHMS	MSD	07/16/25 10:39		rubina	OK
21	CCV2	CCV2	CCV	07/16/25 10:39		rubina	OK
22	CCB2	CCB2	CCB	07/16/25 10:39		rubina	OK
23	Q2614-01	HR-MCN-COMP-01	SAM	07/16/25 10:39	% Solid is missing	rubina	OK
24	LOWPB168862	LOWPB168862	SAM	07/16/25 11:02		rubina	OK
25	CCV3	CCV3	CCV	07/16/25 11:02		rubina	OK
26	CCB3	CCB3	CCB	07/16/25 11:02		rubina	OK

**Instrument ID:** SPECTROPHOTOMETER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB136507**

Review By	rubina	Review On	7/16/2025 4:40:25 PM
Supervise By	Iwona	Supervise On	7/16/2025 4:42:09 PM
SubDirectory	LB136507	Test	Hexavalent Chromium
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP113966,WP112831,WP112830,WP113087		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	07/16/25 15:45		Eman	OK
2	CAL2	CAL2	CAL	07/16/25 15:46		Eman	OK
3	CAL3	CAL3	CAL	07/16/25 15:47		Eman	OK
4	CAL4	CAL4	CAL	07/16/25 15:48		Eman	OK
5	CAL5	CAL5	CAL	07/16/25 15:49		Eman	OK
6	CAL6	CAL6	CAL	07/16/25 15:50		Eman	OK
7	CAL7	CAL7	CAL	07/16/25 15:51		Eman	OK
8	ICV	ICV	ICV	07/16/25 15:52		Eman	OK
9	ICB	ICB	ICB	07/16/25 15:53		Eman	OK
10	CCV1	CCV1	CCV	07/16/25 15:54		Eman	OK
11	CCB1	CCB1	CCB	07/16/25 15:55		Eman	OK
12	RL Check	RL Check	RL	07/16/25 15:56		Eman	OK
13	PB168870BL	PB168870BL	MB	07/16/25 15:57		Eman	OK
14	PB168870BS	PB168870BS	LCS	07/16/25 15:58		Eman	OK
15	Q2598-01	OK-01-071425	SAM	07/16/25 15:59		Eman	OK
16	Q2598-01DUP	OK-01-071425DUP	DUP	07/16/25 16:00		Eman	OK
17	Q2598-01MSPre	OK-01-071425MS	MS	07/16/25 16:01		Eman	OK
18	Q2598-01MS2Ins	OK-01-071425MS	MS	07/16/25 16:02		Eman	OK

Instrument ID: SPECTROPHOTOMETER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB136507**

Review By	rubina	Review On	7/16/2025 4:40:25 PM
Supervise By	Iwona	Supervise On	7/16/2025 4:42:09 PM
SubDirectory	LB136507	Test	Hexavalent Chromium
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP113966,WP112831,WP112830,WP113087		

19	Q2598-01MS3Post	OK-01-071425MS	MS	07/16/25 16:03		Eman	OK
20	Q2600-01	TRENCH	SAM	07/16/25 16:04		Eman	OK
21	Q2600-05	STOCK-PILE	SAM	07/16/25 16:05		Eman	OK
22	Q2600-09	END-OF-TRENCH	SAM	07/16/25 16:06		Eman	OK
23	CCV2	CCV2	CCV	07/16/25 16:07		Eman	OK
24	CCB2	CCB2	CCB	07/16/25 16:08		Eman	OK
25	Q2611-01	EO-02-071525	SAM	07/16/25 16:09		Eman	OK
26	Q2614-01	HR-MCN-COMP-01	SAM	07/16/25 16:10		Eman	OK
27	CCV3	CCV3	CCV	07/16/25 16:11		Eman	OK
28	CCB3	CCB3	CCB	07/16/25 16:12		Eman	OK

## Prep Standard - Chemical Standard Summary

**Order ID :** Q2600

**Test :** Cyanide,Hexavalent Chromium,Ignitability,Percent Solids,pH

**Prepbatch ID :** PB168862,PB168870,

**Sequence ID/Qc Batch ID:** LB136472,LB136483,LB136498,LB136507,

**Standard ID :**

WP112643,WP112826,WP112827,WP112830,WP112831,WP112900,WP112903,WP113087,WP113608,WP113836,WP113837,WP113838,WP113880,WP113881,WP113956,WP113957,WP113958,WP113959,WP113960,WP113961,WP113962,WP113963,WP113965,WP113966,

**Chemical ID :**

E3932,M6041,M6151,M6158,W2202,W2651,W2652,W2668,W2979,W3012,W3019,W3093,W3112,W3113,W3139,W3152,W3161,W3163,W3168,W3178,W3191,W3200,W3203,W3206,W3214,W3217,W3224,



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
539	CN BUFFER	<a href="#">WP112643</a>	04/09/2025	10/09/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych  04/09/2025
<u>FROM</u>	138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1714	Sulfuric Acid, 50% (v/v)	<a href="#">WP112826</a>	04/25/2025	10/25/2025	Rubina Mughal	None	None	Iwona Zarych 04/25/2025
<b><u>FROM</u></b> 1000.00000ml of M6041 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3214	Magnesium Chloride For Cyanide 2.5M(51%W/V)	<a href="#">WP112827</a>	04/25/2025	10/25/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 04/25/2025
<b><u>FROM</u></b> 500.00000ml of W3112 + 510.00000gram of W3152 = 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>PipettelD</u>	<u>Supervised By</u>
1836	HNO3 Hex-Chrome, 5M	<a href="#">WP112830</a>	04/25/2025	10/25/2025	Rubina Mughal	None	None	Iwona Zarych 04/25/2025
<b><u>FROM</u></b> 320.00000ml of M6158 + 680.00000ml 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>
126	5N sulfuric acid	<a href="#">WP112831</a>	04/25/2025	10/25/2025	Rubina Mughal	None	None	Iwona Zarych
								04/25/2025

**FROM** 140.00000ml of M6041 + 860.00000ml 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>
607	PYRIDINE-BARBITURIC ACID	<a href="#">WP112900</a>	05/01/2025	08/18/2025	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	Glass Pipette-A	Iwona Zarych
								05/01/2025

**FROM** 145.00000ml of W3112 + 15.00000gram of W3203 + 15.00000ml of M6151 + 75.00000ml of W3019 = Final Quantity: 250.000 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>
190	HEX CHROME PHOSPHATE BUFFER	<a href="#">WP112903</a>	05/01/2025	11/01/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych
								05/01/2025

**FROM** 0.84500L of W3112 + 68.04000gram of W3206 + 87.09000gram of W3168 = 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>
3354	Hexchrome Cleaning Solution	<a href="#">WP113087</a>	05/15/2025	08/18/2025	Rubina Mughal	None	None	Iwona Zarych
								05/15/2025

**FROM** 182.00000ml of M6151 + 727.00000ml of W3112 + 91.00000ml of M6158 = 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>
148	hexchrome digestion fluid	<a href="#">WP113608</a>	06/23/2025	07/23/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 06/23/2025
<b><u>FROM</u></b> 120.00000gram of W3163 + 4.00000L of W3112 + 80.00000gram of W3113 = Final Quantity: 4000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
11	Sodium hydroxide absorbing solution 0.25 N	<a href="#">WP113836</a>	07/08/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCS-7)	None	Iwona Zarych 07/08/2025
<b><u>FROM</u></b> 21.00000L of W3112 + 210.00000gram of W3113 = Final Quantity: 21.000 L								

## Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3850	Cyanide MS-MSD spiking solution, 5PPM	<a href="#">WP113837</a>	07/08/2025	11/30/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych  07/08/2025
<b>FROM</b> 1.00000ml of W3214 + 199.00000ml of WP113836 = Final Quantity: 200.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3371	Cyanide LCS Spike Solution, 5PPM	<a href="#">WP113838</a>	07/08/2025	12/24/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych  07/08/2025
<b>FROM</b> 1.00000ml of W3224 + 199.00000ml of WP113836 = Final Quantity: 200.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1993	HEXAVALENTCHROMIUM STOCK STD 1, 50PPM	<a href="#">WP113880</a>	07/10/2025	01/10/2026	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych  07/10/2025
<b><u>FROM</u></b> 0.14140gram of W2651 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1994	HEXAVALENTCHROMIUM STOCK STD 2, 50PPM	<a href="#">WP113881</a>	07/10/2025	01/10/2026	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 07/10/2025
<b><u>FROM</u></b> 0.14140gram of W2652 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3456	Cyanide Intermediate Working Std, 5PPM	<a href="#">WP113956</a>	07/16/2025	07/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/17/2025
<b><u>FROM</u></b> 0.25000ml of W3214 + 49.75000ml of WP113836 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4	Calibration standard 500 ppb	<a href="#">WP113957</a>	07/16/2025	07/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/17/2025
<u>FROM</u>	45.00000ml of WP113836 + 5.00000ml of WP113956 = Final Quantity: 50.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3761	Calibration-CCV CN Standard 250 ppb	<a href="#">WP113958</a>	07/16/2025	07/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<p>(WC)</p> <p><b>FROM</b> 2.50000ml of WP113956 + 47.50000ml of WP113836 = Final Quantity: 50.000 ml</p>								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
6	Calibration Standard 100 ppb	<a href="#">WP113959</a>	07/16/2025	07/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<p>(WC)</p> <p><b>FROM</b> 1.00000ml of WP113956 + 49.00000ml of WP113836 = Final Quantity: 50.000 ml</p>								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
7	Calibration Standard 50 ppb	<a href="#">WP113960</a>	07/16/2025	07/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC)								
<u>FROM</u>	0.50000ml of WP113956 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
8	Calibration Standard 10 ppb	<a href="#">WP113961</a>	07/16/2025	07/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<p><b>FROM</b> 1.00000ml of WP113957 + 49.00000ml of WP113836 = Final Quantity: 50.000 ml</p>								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
9	Calibration Standard 5 ppb	<a href="#">WP113962</a>	07/16/2025	07/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<b>FROM</b> 0.50000ml of WP113957 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml <div></div>								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
167	0 ppb CN calibration std	<a href="#">WP113963</a>	07/16/2025	07/17/2025	Rubina Mughal	None	None	Iwona Zarych 07/17/2025
<b><u>FROM</u></b> 50.00000ml of WP113836 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1582	Chloramine T solution, 0.014M	<a href="#">WP113965</a>	07/16/2025	07/17/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	Glass Pipette-A	Iwona Zarych 07/17/2025
<u>FROM</u>	0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
114	hexavalent chromium color reagent	<a href="#">WP113966</a>	07/16/2025	07/23/2025	Eman Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 07/17/2025
<b><u>FROM</u></b> 0.25000gram of W2979 + 50.00000ml of E3932 = Final Quantity: 50.000 ml								



## CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	11/05/2025	05/05/2025 / RUPESH	04/23/2025 / RUPESH	E3932

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	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-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

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

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

## CHEMICAL RECEIPT LOG BOOK

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	/ ICV-CN	ICV6-400	12/31/2025	01/08/2025 / lwona	02/20/2020 / lwona	W3012

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

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

## CHEMICAL RECEIPT LOG BOOK

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

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

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

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

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

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

## CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3252-1 / POTAS PHOSPHATE, DIBASIC PWD, ACS, 500G	24H0856239	04/19/2028	01/03/2025 / Iwona	01/03/2025 / Iwona	W3168

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14055-3 / PH 4 BUFFER SOLUTION	2411A93	10/30/2026	04/01/2025 / JIGNESH	01/27/2025 / jignesh	W3178

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1601-1 / PH 10.01 BUFFER,COLOR CD 475ML	2410F80	03/31/2026	04/01/2025 / JIGNESH	03/13/2025 / jignesh	W3191

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
RICCA CHEMICAL COMPANY	1615-16 / pH 12.00 Buffer	2504F20	09/30/2026	04/11/2025 / Iwona	04/11/2025 / Iwona	W3200

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-BX0035-3 / Barbituric Acid, 100 gms	WXBF3271V	05/16/2029	04/21/2025 / Iwona	04/21/2025 / Iwona	W3203

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3246-1 / POTAS PHOSPHATE, MONO, CRYST, ACS, 500G	MKCX1379	01/31/2029	04/29/2025 / Iwona	04/29/2025 / Iwona	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.	RC2543-4 / CYANIDE STD 1000PPM 4OZ	1505H73	11/30/2025	05/21/2025 / lwona	05/21/2025 / lwona	W3214

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14455-3 / buffer solution pH 7 yellow	2504D34	03/31/2027	07/02/2025 / jignesh	06/26/2025 / lwona	W3217

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	LC135457 / Cyanide Standard, 1000 PPM, Second Source	45060288	12/24/2025	07/07/2025 / lwona	07/07/2025 / lwona	W3224

# Certificate of analysis

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

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

Traceable to NIST? Yes

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

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

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

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**This document has been electronically generated and does not require a signature.**

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

W3019  
Rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

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

## Certificate of Analysis

Product Name:

Pyridine - anhydrous, 99.8%

Product Number:

270970

Batch Number:

SHBQ2113

Brand:

SIAL

CAS Number:

110-86-1

MDL Number:

MFCD00011732

Formula:

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

Formula Weight:

79.10 g/mol

Quality Release Date:

15 DEC 2022



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

  
Larry Coers, Director  
Quality Control  
Sheboygan Falls, WI US

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







## Certificate of Analysis

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

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

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

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

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

*Jerusa Bailey-Wyche*

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

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

\*Based on suggested storage condition.

Acetone  
BAKER RESI-ANALYZED® Reagent  
For Organic Residue Analysis

 **avantor™**



Material No.: 9254-03

Batch No.: 24H1462005

Manufactured Date: 2024-05-24

Expiration Date: 2027-05-24

Revision No.: 0

## Certificate of Analysis

Test	Specification	Result
Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water)	>= 99.4 %	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 <sub>2</sub> 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

RS

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3932



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



R: 02/20/20  
53

**Instructions for QATS Reference Material: Inorganic ICV Solutions**

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

**ICV5-0415**

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

**ICV6-0400**

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

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

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

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

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

W3011  
W3012  
W3013  
W3014  
W3015

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

avantor™



M 6041-4b  
MS

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

## Certificate of Analysis

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

>>> Continued on page 2 >>>

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

 **avantorsm**



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

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

For Laboratory, Research, or Manufacturing Use

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

  
Jamie Ethier  
Vice President Global Quality

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

 **avantor™**



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 <sub>2</sub> )	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO <sub>4</sub> )	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO <sub>4</sub> )	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO <sub>3</sub> )	≤ 0.8 ppm	0.3 ppm
Ammonium (NH <sub>4</sub> )	≤ 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
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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



Nitric Acid 69%  
CMOS

avantor™



R- 0210212025

m - 6158

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

## Certificate of Analysis

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

>>> Continued on page 2 >>>

Nitric Acid 69%  
CMOS

 **avantors<sup>TM</sup>**



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

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

>>> Continued on page 3 >>>

Nitric Acid 69%  
CMOS

 **avantor™**



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

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

For Microelectronic Use

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



Jamie Croak  
Director Quality Operations, Bioscience Production

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

(sodium dihydrogen phosphate, monohydrate)



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

## Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

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

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

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

  
Jamie Ethier  
Vice President Global Quality

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

W 2979

Rec: 12/09/22

exp. 12/09/27

Product Name:

1,5-Diphenylcarbazide - ACS reagent

Product Number:

259225

Batch Number:

MKCR6636

Brand:

SIAL

CAS Number:

140-22-7

MDL Number:

MFCD00003013

Formula:

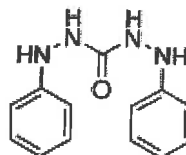
C<sub>13</sub>H<sub>14</sub>N<sub>4</sub>O

Formula Weight:

242.28 g/mol


Quality Release Date:

02 JUN 2022



## Certificate of Analysis

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



Larry Coers, Director  
Quality Control  
Milwaukee, WI US

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



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# Certificate of Analysis

W3093  
004121  
04/03/2024  
16

**Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)****Lot Number:** 4401F99**Product Number:** 1551**Manufacture Date:** JAN 08, 2024**Expiration Date:** DEC 2025

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

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

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

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

Test	Specification	Result
Appearance	Yellow liquid	Passed

\*Not a certified value.

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

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

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1551-1	4 L natural poly	24 months
1551-1CT	4 L Cubitainer®	24 months
1551-2.5	10 L Cubitainer®	24 months
1551-5	20 L Cubitainer®	24 months

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



Paul Brandon (01/08/2024)

Production Manager

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

**This product was tested in an ISO 17025 Accredited Laboratory**

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



# Certificate of Analysis



## Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

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

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

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

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

### Additional Information

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

Product meets analytical specifications of the grades listed.





## Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

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

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

### Additional Information

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

Product meets analytical specifications of the grades listed.

W3139 Received on 9/9/24 by IZ

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

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

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**This document has been electronically generated and does not require a signature.**

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

# *Chem-Impex International, Inc.*

---

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

935 Dillon Drive

Wood Dale, IL 60191

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

825 Dillon Drive

Wood Dale, IL 60191

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## *Certificate of Analysis*

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

Magnesium chloride•6H<sub>2</sub>O

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

<b>Molecular Weight</b>	203.3
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<b>Appearance</b>	White crystals
<b>Solubility</b>	167 g in 100 mL water
<b>Melting Point</b>	~ 115 °C
<b>Heavy Metals</b>	4.393 ppm
<b>Anion</b>	Nitrate (NO <sub>3</sub> ) : < 0.001% Phosphate (PO <sub>4</sub> ) : < 5 ppm Sulfate (SO <sub>4</sub> ) : < 0.002%
<b>Cation</b>	Ammonium (NH <sub>4</sub> ) : < 0.002% Barium (Ba) : 0.005% Calcium (Ca) : 0.01% Iron (Fe) : 4.5 ppm Manganese (Mn) : 0.624 ppm Potassium (K) : 0.004% Sodium (Na) : 0.000003% Strontium (Sr) : 0.005%
<b>Insoluble material</b>	0.0021%
<b>Assay by titration</b>	100.83%
<b>Grade</b>	ACS reagent
<b>Storage</b>	Store at RT

## ***Certificate of Analysis***

**Catalog Number: 01237**

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

---

**Remarks**

See material safety data sheet for additional information

For laboratory use only

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

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

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



# Certificate of Analysis

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

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

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

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

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

Test	Specification	Result
Appearance	Colorless liquid	Passed

\*Not a certified value.

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

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1493-1	4 L natural poly	24 months
1493-16	500 mL natural poly	24 months
1493-1CT	4 L Cubitainer®	24 months
1493-2.5	10 L Cubitainer®	24 months
1493-32	1 L natural poly	24 months

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



Jose Pena (11/11/2024)  
Operations Manager

**This product was tested in an ISO 17025 Accredited Laboratory**

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W3163 Rec. on 12/10/24 by IZ

# Certificate of Analysis



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

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

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

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

Internal ID #: 710

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



Material	BDH9266-500G
Material Description	BDH POTASS PHOSPHAT DBSC 500GM
Grade	ACS GRADE
Batch	24H0856239
Reassay Date	04/19/2028
CAS Number	7758-11-4
Molecular Formula	K <sub>2</sub> HPO <sub>4</sub>
Molecular Mass	174.18
Date of Manufacture	04/19/2024
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	Fine white crystalline powder	Fine white crystalline powder
Chloride	<= 0.003 %	0.002 %
Heavy Metals (as Pb)	<= 0.0005 %	<0.0005 %
Insolubles	<= 0.01 %	<0.01 %
Iron	<= 0.001 %	<0.001 %
Loss on Drying	<= 1.0 %	<0.5 %
Nitrogen Compounds	<= 0.001 %	<0.001 %
pH (5%, Water) @25C	8.5 - 9.6	8.8
Purity	>= 98.0 %	99.1 %
Sodium	<= 0.05 %	<0.05 %
Sulfate	<= 0.005 %	<0.002 %
CUSTOMER PART # BDH9266-500G		

Internal ID #: 793

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



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# Certificate of Analysis

021758 58

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

Lot Number: 2411A93

Product Number: 1501

Manufacture Date: NOV 04, 2024

Expiration Date: OCT 2026

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

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

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

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

Test	Specification	Result
Appearance	Red liquid	Passed

\*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	4.008	0.02	185i, 186-I-g, 186-II-g

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

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1501-16	500 mL natural poly	24 months
1501-2.5	10 L Cubitainer®	24 months
1501-5	20 L Cubitainer®	24 months

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



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Certificate of Analysis

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

Lot Number: 2410F80

Product Number: 1601

Manufacture Date: OCT 09, 2024

Expiration Date: MAR 2026

The certified value for this product is confirmed in independent testing by a second qualified chemist.  
The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

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

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

Test	Specification	Result
Appearance	Blue liquid	Passed

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	10.009	0.02	186-I-g, 186-II-g, 191d

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

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1601-1	4 L natural poly	18 months
1601-16	500 mL natural poly	18 months
1601-1CT	4 L Cubitainer®	18 months
1601-2.5	10 L Cubitainer®	18 months
1601-32	1 L natural poly	18 months
1601-5	20 L Cubitainer®	18 months

Version: 1.3

Lot Number: 2410F80

Product Number: 1601

Page 1 of 2



# Certificate of Analysis

**Buffer, Reference Standard, pH 12.00 ± 0.01 at 25°C****Lot Number:** 2504F20**Product Number:** 1615**Manufacture Date:** APR 08, 2025**Expiration Date:** SEP 2026

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

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

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

Test	Specification	Result
Appearance	Colorless liquid	Passed

\*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	12.009	0.02	186-I-g, 186-II-g, 191d

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1615-1	4 L natural poly	18 months
1615-16	500 mL clear PET-G	18 months
1615-5	20 L Cubitainer®	18 months

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



Jose Pena (04/08/2025)  
Operations Manager

**This product was tested in an ISO 17025 Accredited Laboratory**

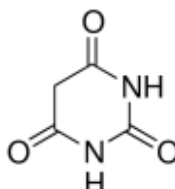
This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

## Certificate of Analysis

Product Name:

Barbituric acid - ReagentPlus®, 99%

Product Number: 185698  
Batch Number: WXBFB3271V  
Brand: SIAL  
CAS Number: 67-52-7  
Formula: C<sub>4</sub>H<sub>4</sub>N<sub>2</sub>O<sub>3</sub>  
Formula Weight: 128.09 g/mol  
Quality Release Date: 16 MAY 2024



Test	Specification	Result
Appearance (Colour)	White to Off-White	White
Appearance (Form)	Powder	Powder
Infrared spectrum	Conforms to Structure	Conforms
Purity (Titration by NaOH)	98.5 - 101.5 %	100.4 %
GC (area %)	≥ 98 %	100 %
VPCT		



Kang Chen  
Quality Manager  
Wuxi, China CN

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

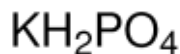


## Certificate of Analysis

Product 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:** H<sub>2</sub>KO<sub>4</sub>P  
**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 <sub>4</sub> )	≤ 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](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



# Certificate of Analysis

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

**Lot Number:** 1505H73

**Product Number:** 2543

**Manufacture Date:** MAY 08, 2025

**Expiration Date:** NOV 2025

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

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

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

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

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

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
2543-16	500 mL amber poly	6 months
2543-32	1 L amber poly	6 months
2543-4	120 mL amber poly	6 months

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



Ernest Mahan (05/08/2025)  
Plant Manager

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# Certificate of Analysis

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

**Lot Number:** 2504D34

**Product Number:** 1551

**Manufacture Date:** APR 03, 2025

**Expiration Date:** MAR 2027

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

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

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

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

Test	Specification	Result
Appearance	Yellow liquid	Passed

\*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	7.003	0.02	186-I-g, 186-II-g, 191d

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

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1551-2.5	10 L Cubitainer®	24 months
1551-20	20 x 20 mL pack	24 months
1551-32	1 L natural poly	24 months
1551-5	20 L Cubitainer®	24 months

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



Jose Pena (04/03/2025)  
Operations Manager

**This product was tested in an ISO 17025 Accredited Laboratory**

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



Part of TCP Analytical Group

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

## Certificate of Analysis

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

Product Code: **LC13545**

Manufacture Date: June 25, 2025

Lot Number: **45060288**

Expiration Date: December 24, 2025

Test	Specification	Result
Appearance (clarity)	clear solution	clear solution
Appearance (color)	colorless	colorless
Concentration (CN)	0.990 - 1.010mg/mL	1.000mg/mL
Concentration (CN)	990 - 1,010ppm	1,000ppm
Traceable to NIST SRM	Report	999b

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

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

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

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

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

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

*Michael Monteleone*

Michael Monteleone  
Chemistry Supervisor - Quality Control  
20250703 15:30:45ahoffman-0-0

ISO9001:2015 Registration #0306-01



PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 7/15/2025

OVENTEMP IN Celsius(°C): 108  
Time IN: 17:25  
In Date: 07/14/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:25  
Out Date: 07/15/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % solids-oven

QC:LB136466

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q2595-01	CHRT-24849	1	1.14	10.85	11.99	6.00	44.8	GEL Matrix
Q2595-02	CHRT-24849-E2	2	1.18	10.69	11.87	3.99	26.3	GEL Matrix
Q2597-01	CHRT-26899	3	1.18	10.21	11.39	11.25	98.6	
Q2597-02	CHRT-26899-E2	4	1.19	10.48	11.67	11.55	98.9	
Q2598-01	OK-01-071425	5	1.14	10.30	11.44	11.11	96.8	
Q2598-02	OK-01-071425-E2	6	1.17	10.23	11.4	11.02	96.3	
Q2599-01	A1	7	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2599-02	A2	8	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2599-03	B1	9	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2600-01	TRENCH	10	1.12	10.41	11.53	8.98	75.5	
Q2600-03	TRENCH	11	1.19	10.80	11.99	9.85	80.2	
Q2600-05	STOCK-PILE	12	1.13	10.53	11.66	9.78	82.1	
Q2600-07	STOCK-PILE	13	1.15	10.84	11.99	10.22	83.7	
Q2600-09	END-OF-TRENCH	14	1.15	10.49	11.64	10.09	85.2	
Q2600-11	END-OF-TRENCH	15	1.17	10.62	11.79	10.18	84.8	
Q2601-01	7-14-25-1	16	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-02	7-14-25-2	17	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-03	7-14-25-3	18	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-04	7-14-25-4	19	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-05	7-14-25-5	20	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-06	7-14-25-6	21	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-07	7-14-25-7	22	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-08	7-14-25-8	23	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-09	7-14-25-9	24	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-10	7-14-25-10	25	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-11	7-14-25-11	26	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-12	7-14-25-12	27	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-13	7-14-25-13	28	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE



PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 7/15/2025

OVENTEMP IN Celsius(°C): 108  
Time IN: 17:25  
In Date: 07/14/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:25  
Out Date: 07/15/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % solids-oven

QC:LB136466

Lab ID	Client SampleID	Dish #	Dish Wt (g) (A)	Sample Wt (g)	Dish + Sample Wt (g) (B)	Dish+Dry Sample Wt (g) (C)	% Solid	Comments
Q2601-14	7-14-25-14	29	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2601-15	7-14-25-15	30	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE

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

# WORKLIST(Hardcopy Internal Chain)

136466

WorkList Name : %1-071425 WorkList ID : 190685 Department : Wet-Chemistry Date : 07-14-2025 07:38:22

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2600-01	TRENCH	Solid	Percent Solids	Cool 4 deg C	TACO01	D41	07/14/2025	Chemtech -SO
Q2600-03	TRENCH	Solid	Percent Solids	Cool 4 deg C	TACO01	D41	07/14/2025	Chemtech -SO
Q2600-05	STOCK-PILE	Solid	Percent Solids	Cool 4 deg C	TACO01	D41	07/14/2025	Chemtech -SO
Q2600-07	STOCK-PILE	Solid	Percent Solids	Cool 4 deg C	TACO01	D41	07/14/2025	Chemtech -SO
Q2600-09	END-OF-TRENCH	Solid	Percent Solids	Cool 4 deg C	TACO01	D41	07/14/2025	Chemtech -SO
Q2600-11	END-OF-TRENCH	Solid	Percent Solids	Cool 4 deg C	TACO01	D41	07/14/2025	Chemtech -SO
Q2595-01	CHRT-24849	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	07/14/2025	Chemtech -SO
Q2595-02	CHRT-24849-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	07/14/2025	Chemtech -SO
Q2597-01	CHRT-26899	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2597-02	CHRT-26899-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2599-01	A1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	07/14/2025	Chemtech -SO
Q2599-02	A2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	07/14/2025	Chemtech -SO
Q2601-12	7-14-25-12	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-13	7-14-25-13	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-14	7-14-25-14	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-15	7-14-25-15	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-06	7-14-25-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-07	7-14-25-7	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-08	7-14-25-8	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-09	7-14-25-9	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-10	7-14-25-10	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO

Date/Time 07/14/25 15:15  
 Raw Sample Received by: CP  
 Raw Sample Relinquished by: CP

Date/Time 07/14/25 15:30  
 Raw Sample Received by: CP  
 Raw Sample Relinquished by: CP

# WORKLIST(Hardcopy Internal Chain)

W 136466

WorkList Name : %1-071425 WorkList ID : 190685 Department : Wet-Chemistry Date : 07-14-2025 07:38:22

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2601-11	7-14-25-11	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2599-03	B1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	07/14/2025	Chemtech -SO
Q2601-01	7-14-25-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-02	7-14-25-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-03	7-14-25-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-04	7-14-25-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2601-05	7-14-25-5	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	07/14/2025	Chemtech -SO
Q2598-01	OK-01-071425	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	07/14/2025	Chemtech -SO
Q2598-02	OK-01-071425-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	07/14/2025	Chemtech -SO

Date/Time 07/14/25 15:15  
 Raw Sample Received by: SP WPC  
 Raw Sample Relinquished by: OK SP

Date/Time 07/14/25 17:30  
 Raw Sample Received by: OK SP  
 Raw Sample Relinquished by: SP WPC



# SHIPPING DOCUMENTS





# CHEMTECH

## Environmental Laboratory

www.chemtech.net | EMAIL: PM@chemtech.net

Project Name: Kingsland Point Tank

Water Main

Service Order #: \_\_\_\_\_

Work Order #: \_\_\_\_\_

Labor WBS #: \_\_\_\_\_

Facility/Site: \_\_\_\_\_

Site Address: Tenny Town, Legut - Kingsland

Point Park, Sleepy Hollow NY 10591

Chemtech Order ID: \_\_\_\_\_

Sampler Name: George Negron

Client Project Coordinator & Phone: Garrett Johnson (842) 298-0150

Page #: 1 of 1

Date: 7-14-25

Arrive Time: 1230

Depart Time: 1335

Waste Stream (circle one): drum / roll-off / soil pile / in-situ / linear construction / frac-tank

Sample Matrices (circle all that apply): Water / Solid / NAPL / Concrete / Wipe

Collection Depths: \_\_\_\_\_

Dimensions/CY: \_\_\_\_\_

Temp (range): \_\_\_\_\_

°C

PID Readings (range): \_\_\_\_\_

PPM

Odor ☒ Y ☐ N

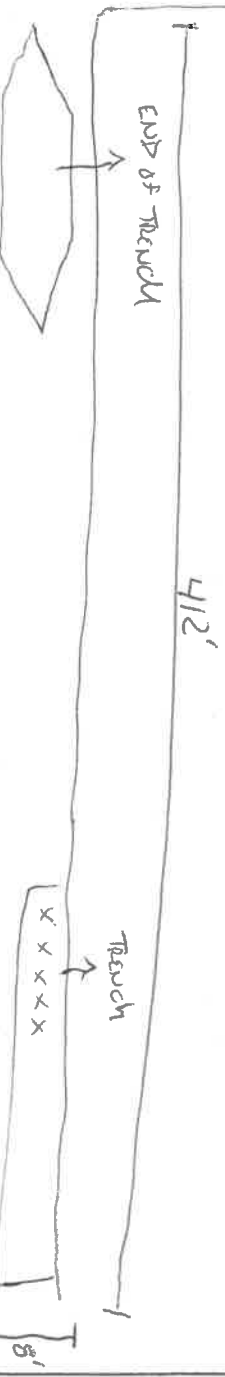
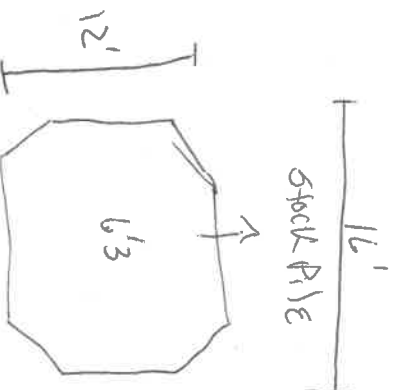
Color ☒ Y ☐ N

Sample Description: Black oily soil (rocks present) very strong smell

Field Observations: Sample along the trench + stock pile

Grid/Area Composite Map:

QA Control # A3041134



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

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

Supervisor Review/Date: \_\_\_\_\_

Date/Time Arrived at Lab: \_\_\_\_\_

### Laboratory Certification

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

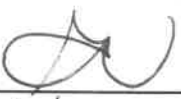
## LOGIN REPORT/SAMPLE TRANSFER

<b>Order ID :</b> Q2600	TACO01	<b>Order Date :</b> 7/14/2025 2:21:01 PM	<b>Project Mgr :</b>
<b>Client Name :</b> T&A Construction Inc		<b>Project Name :</b> Kingsland Point Park Water	<b>Report Type :</b> Analytical Summary 1
<b>Client Contact :</b> Garrett Johnson		<b>Receive DateTime :</b> 7/14/2025 12:00:00 AM	<b>EDD Type :</b> Excel NY
<b>Invoice Name :</b> T&A Construction Inc		<b>Purchase Order :</b>	<b>Hard Copy Date :</b>
<b>Invoice Contact :</b> Garrett Johnson			<b>Date Signoff :</b>

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2600-03	TRENCH	Solid	07/14/2025	13:05					
					VOC-TCLVOA-10		8260D	3 Bus. Days	
Q2600-07	STOCK-PILE	Solid	07/14/2025	13:15					
					VOC-TCLVOA-10		8260D	3 Bus. Days	
Q2600-11	END-OF-TRENCH	Solid	07/14/2025	13:25					
					VOC-TCLVOA-10		8260D	3 Bus. Days	


Relinquished By :

Date / Time :

  
7/14/25 1540

Received By :

Date / Time :

  
7/14/25 1540

Storage Area : VOA Refridgerator Room