

## **DATA PACKAGE GENERAL CHEMISTRY**

**PROJECT NAME : NWIRP NORTHRUP GRUMMAN SITE – BETHPAGE, NY**

**ICE SERVICE GROUP, INC.  
191 Central Avenue Suite 200C**

**Newark, NJ - 07103  
Phone No: 4129165710**

**ORDER ID : Q3399  
ATTENTION : Dennis D. Morgan, II**



**Laboratory Certification ID # 20012**



|                                                       |     |
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## Cover Page

**Order ID :** Q3399

**Project ID :** NWIRP Northrup Grumman Site – Bethpage, NY

**Client :** ICE Service Group, Inc.

### Lab Sample Number

Q3399-01  
Q3399-02  
Q3399-03  
Q3399-04

### Client Sample Number

COMP-ROLLOFF  
COMP-ROLLOFF  
COMP-ROLLOFF  
COMP-ROLLOFF

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

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

Date: 12/17/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

## **CASE NARRATIVE**

**ICE Service Group, Inc.**

**Project Name: NWIRP Northrup Grumman Site – Bethpage, NY**

**Project # N/A**

**Order ID # Q3399**

**Test Name: Corrosivity, Hexavalent Chromium, Ignitability, Paint Filter, pH, Reactive Cyanide, Reactive Sulfide, Trivalent Chromium**

### **A. Number of Samples and Date of Receipt:**

2 Solid samples were received on 10/20/2025.

### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Corrosivity, Hexavalent Chromium, Ignitability, Paint Filter, pH, Reactive Cyanide, Reactive Sulfide, Trivalent Chromium. This data package contains results for Corrosivity, Hexavalent Chromium, Ignitability, Paint Filter, pH, Reactive Cyanide, Reactive Sulfide, Trivalent Chromium.

### **C. Analytical Techniques:**

The analysis of Ignitability was based on method 1030, The analysis of Trivalent Chromium was based on method 6010D, The analysis of Hexavalent Chromium was based on method 7196A, The analysis of Reactive Cyanide was based on method 9012B, The analysis of Reactive Sulfide was based on method 9034, The analysis of Corrosivity, pH was based on method 9045D and The analysis of Paint Filter was based on method 9095B.

### **D. QA/ QC Samples:**

The Holding Times were met for all samples except for COMP-ROLLOFF of pH and for COMP-ROLLOFF of Corrosivity, as this sample received out of hold.

The Blank Spike met requirements for all compounds.

The Duplicate analysis met criteria for all compounds.

The Matrix Spike analysis met criteria for all compounds.

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

The Calibration met the requirements.

### **E. Additional Comments:**

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

Signature\_\_\_\_\_

## 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<br>“P” for ICP instrument<br>“PM” for ICP when Microwave Digestion is used<br>“CV” for Manual Cold Vapor AA<br>“AV” for automated Cold Vapor AA<br>“CA” for MIDI-Distillation Spectrophotometric<br>“AS” for Semi -Automated Spectrophotometric<br>“C” for Manual Spectrophotometric<br>“T” for Titrimetric<br>“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                                                                                                                                                                                                                                                                                                                                              |

**GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY**

ORDER ID: Q3399

MATRIX: Solid

METHOD: 1030,6010D,7196A,9012B,9034,9045D,9095B

|                                                                                                                                                    | NA | NO | YES |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|
| 1. Blank Contamination - If yes, list compounds and concentrations in each blank:                                                                  |    | ✓  |     |
| 2. Matrix Spike Duplicate Recoveries Met Criteria                                                                                                  |    |    | ✓   |
| If not met, list those compounds and their recoveries which fall outside the acceptable range.                                                     |    |    |     |
| The Blank Spike met requirements for all compounds.                                                                                                |    |    |     |
| 3. Sample Duplicate Analysis Met QC Criteria                                                                                                       |    |    | ✓   |
| If not met, list those compounds and their recoveries which fall outside the acceptable range.                                                     |    |    |     |
| 8. Digestion Holding Time Met                                                                                                                      |    | ✓  |     |
| If not met, list number of days exceeded for each sample:                                                                                          |    |    |     |
| The Holding Times were met for all samples except for COMP-ROLLOFF of pH and for COMP-ROLLOFF of Corrosivity, as this sample received out of hold. |    |    |     |

ADDITIONAL COMMENTS:

\_\_\_\_\_  
QA REVIEW

\_\_\_\_\_  
Date

APPENDIX A

**QA REVIEW GENERAL DOCUMENTATION**

Project #: Q3399

Completed

For thorough review, the report must have the following:

**GENERAL:**

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

**COVER PAGE:**

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

**CHAIN OF CUSTODY:**

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

**ANALYTICAL:**

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 12/17/2025

## LAB CHRONICLE

|                 |                         |                   |                                            |
|-----------------|-------------------------|-------------------|--------------------------------------------|
| <b>OrderID:</b> | Q3399                   | <b>OrderDate:</b> | 10/20/2025 1:23:08 PM                      |
| <b>Client:</b>  | ICE Service Group, Inc. | <b>Project:</b>   | NWIRP Northrup Grumman Site – Bethpage, NY |
| <b>Contact:</b> | Dennis D. Morgan, II    | <b>Location:</b>  | D41,VOA Ref. #2 Soil                       |

| LabID    | ClientID     | Matrix | Test                | Method | Sample Date       | Prep Date | Anal Date         | Received |
|----------|--------------|--------|---------------------|--------|-------------------|-----------|-------------------|----------|
| Q3399-01 | COMP-ROLLOFF | SOIL   |                     |        | 10/20/25<br>12:00 | 10/21/25  |                   | 10/20/25 |
|          |              |        | Hexavalent Chromium | 7196A  |                   |           | 10/21/25<br>15:59 |          |
|          |              |        | Paint Filter        | 9095B  |                   |           | 10/22/25<br>08:40 |          |
|          |              |        | pH                  | 9045D  |                   |           | 10/22/25<br>10:10 |          |
|          |              |        | Trivalent Chromium  | 6010D  |                   |           | 10/21/25<br>19:01 |          |
| Q3399-02 | COMP-ROLLOFF | SOIL   |                     |        | 10/20/25<br>12:00 | 10/21/25  |                   | 10/20/25 |
|          |              |        | Corrosivity         | 9045D  |                   |           | 10/21/25<br>13:00 |          |
|          |              |        | Ignitability        | 1030   |                   |           | 10/22/25<br>09:15 |          |
|          |              |        | Reactive Cyanide    | 9012B  |                   | 10/21/25  | 10/21/25<br>12:39 |          |
|          |              |        | Reactive Sulfide    | 9034   |                   | 10/22/25  | 10/22/25<br>13:03 |          |



# SAMPLE DATA

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

## Report of Analysis

Client: ICE Service Group, Inc.  
Project: NWIRP Northrup Grumman Site – Bethpage, NY  
Client Sample ID: COMP-ROLLOFF  
Lab Sample ID: Q3399-01

Date Collected: 10/20/25 12:00  
Date Received: 10/20/25  
SDG No.: Q3399  
Matrix: SOIL  
% Solid: 89.9

| Parameter           | Conc. | Qua. | DF | MDL   | LOD  | LOQ / CRQL | Units    | Prep Date      | Date Ana.      | Ana Met. |
|---------------------|-------|------|----|-------|------|------------|----------|----------------|----------------|----------|
| Hexavalent Chromium | 0.22  | U    | 1  | 0.076 | 0.22 | 0.44       | mg/Kg    | 10/21/25 12:00 | 10/21/25 15:59 | 7196A    |
| Paint Filter        | 1.00  | U    | 1  | 1.00  | 1.00 | 1.00       | ml/100gm |                | 10/22/25 08:40 | 9095B    |
| pH                  | 6.99  | H    | 1  | 0     | 0    | 0          | pH       |                | 10/22/25 10:10 | 9045D    |
| Trivalent Chromium  | 3.09  |      | 1  | 0.56  | 0.56 | 0.56       | mg/Kg    |                | 10/21/25 19:01 | 6010D    |

Comments: pH result reported at temperature 20.1 °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: ICE Service Group, Inc.  
Project: NWIRP Northrup Grumman Site – Bethpage, NY  
Client Sample ID: COMP-ROLLOFF  
Lab Sample ID: Q3399-02

Date Collected: 10/20/25 12:00  
Date Received: 10/20/25  
SDG No.: Q3399  
Matrix: SOIL  
% Solid: 100

| Parameter        | Conc. | Qua. | DF | MDL    | LOD   | LOQ / CRQL | Units | Prep Date      | Date Ana.      | Ana Met. |
|------------------|-------|------|----|--------|-------|------------|-------|----------------|----------------|----------|
| Corrosivity      | 6.99  | H    | 1  | 0      | 0     | 0          | pH    |                | 10/21/25 13:00 | 9045D    |
| Ignitability     | NO    |      | 1  | 0      | 0     | 0          | oC    |                | 10/22/25 09:15 | 1030     |
| Reactive Cyanide | 0.025 | U    | 1  | 0.0083 | 0.025 | 0.050      | mg/Kg | 10/21/25 08:45 | 10/21/25 12:39 | 9012B    |
| Reactive Sulfide | 1.59  | J    | 1  | 0.20   | 5.00  | 10.0       | mg/Kg | 10/22/25 09:20 | 10/22/25 13:03 | 9034     |

Comments: pH result reported at temperature 20.1 °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

# QC RESULT SUMMARY

## Initial and Continuing Calibration Verification

**Client:** ICE Service Group, Inc.

**SDG No.:** Q3399

**Project:** NWIRP Northrup Grumman Site – Bethpage, NY

**RunNo.:** LB137601

| Analyte                                       | Units | Result | True Value | % Recovery | Acceptance Window (%R) | Analysis Date |
|-----------------------------------------------|-------|--------|------------|------------|------------------------|---------------|
| Sample ID: <b>ICV</b><br>Hexavalent Chromium  | mg/L  | 0.495  | 0.5        | 99         | 90–110                 | 10/21/2025    |
| Sample ID: <b>CCV1</b><br>Hexavalent Chromium | mg/L  | 0.496  | 0.5        | 99         | 90–110                 | 10/21/2025    |
| Sample ID: <b>CCV2</b><br>Hexavalent Chromium | mg/L  | 0.491  | 0.5        | 98         | 90–110                 | 10/21/2025    |
| Sample ID: <b>CCV3</b><br>Hexavalent Chromium | mg/L  | 0.496  | 0.5        | 99         | 90–110                 | 10/21/2025    |
| Sample ID: <b>CCV4</b><br>Hexavalent Chromium | mg/L  | 0.489  | 0.5        | 98         | 90–110                 | 10/21/2025    |

## Initial and Continuing Calibration Verification

**Client:** ICE Service Group, Inc.

**SDG No.:** Q3399

**Project:** NWIRP Northrup Grumman Site – Bethpage, NY

**RunNo.:** LB137602

| Analyte                                    | Units | Result | True Value | % Recovery | Acceptance Window (%R) | Analysis Date |
|--------------------------------------------|-------|--------|------------|------------|------------------------|---------------|
| Sample ID: <b>ICV1</b><br>Reactive Cyanide | mg/L  | 0.093  | 0.099      | 94         | 85-115                 | 10/21/2025    |
| Sample ID: <b>CCV1</b><br>Reactive Cyanide | mg/L  | 0.24   | 0.25       | 96         | 90-110                 | 10/21/2025    |
| Sample ID: <b>CCV2</b><br>Reactive Cyanide | mg/L  | 0.24   | 0.25       | 96         | 90-110                 | 10/21/2025    |
| Sample ID: <b>CCV3</b><br>Reactive Cyanide | mg/L  | 0.24   | 0.25       | 96         | 90-110                 | 10/21/2025    |
| Sample ID: <b>CCV4</b><br>Reactive Cyanide | mg/L  | 0.25   | 0.25       | 100        | 90-110                 | 10/21/2025    |

## Initial and Continuing Calibration Verification

**Client:** ICE Service Group, Inc.

**SDG No.:** Q3399

**Project:** NWIRP Northrup Grumman Site – Bethpage, NY

**RunNo.:** LB137603

| Analyte                               | Units | Result | True Value | % Recovery | Acceptance Window (%R) | Analysis Date |
|---------------------------------------|-------|--------|------------|------------|------------------------|---------------|
| Sample ID: <b>ICV</b><br>Corrosivity  | pH    | 6.98   | 7          | 100        | 90-110                 | 10/21/2025    |
| Sample ID: <b>CCV1</b><br>Corrosivity | pH    | 2.01   | 2.00       | 101        | 90-110                 | 10/21/2025    |
| Sample ID: <b>CCV2</b><br>Corrosivity | pH    | 12.02  | 12.00      | 100        | 90-110                 | 10/21/2025    |
| Sample ID: <b>CCV3</b><br>Corrosivity | pH    | 2.01   | 2.00       | 101        | 90-110                 | 10/21/2025    |

## Initial and Continuing Calibration Verification

**Client:** ICE Service Group, Inc.

**SDG No.:** Q3399

**Project:** NWIRP Northrup Grumman Site – Bethpage, NY

**RunNo.:** LB137607

| Analyte                      | Units | Result | True Value | % Recovery | Acceptance Window (%R) | Analysis Date |
|------------------------------|-------|--------|------------|------------|------------------------|---------------|
| Sample ID: <b>ICV</b><br>pH  | pH    | 7.00   | 7          | 100        | 90–110                 | 10/22/2025    |
| Sample ID: <b>CCV1</b><br>pH | pH    | 2.01   | 2.00       | 101        | 90–110                 | 10/22/2025    |
| Sample ID: <b>CCV2</b><br>pH | pH    | 12.02  | 12.00      | 100        | 90–110                 | 10/22/2025    |

### Initial and Continuing Calibration Verification

**Client:** ICE Service Group, Inc.

**SDG No.:** Q3399

**Project:** NWIRP Northrup Grumman Site – Bethpage, NY

**RunNo.:** LB137607

| Analyte | Units | Result | True Value | %<br>Recovery | Acceptance<br>Window (%R) | Analysis<br>Date |
|---------|-------|--------|------------|---------------|---------------------------|------------------|
|---------|-------|--------|------------|---------------|---------------------------|------------------|

### Initial and Continuing Calibration Blank Summary

**Client:** ICE Service Group, Inc.

**SDG No.:** Q3399

**Project:** NWIRP Northrup Grumman Site – Bethpage, NY

**RunNo.:** LB137601

| Analyte                                       | Units | Result   | Acceptance Limits | Conc Qual | MDL    | RDL  | Analysis Date |
|-----------------------------------------------|-------|----------|-------------------|-----------|--------|------|---------------|
| Sample ID: <b>ICB</b><br>Hexavalent Chromium  | mg/L  | < 0.0050 | 0.0050            | U         | 0.0029 | 0.01 | 10/21/2025    |
| Sample ID: <b>CCB1</b><br>Hexavalent Chromium | mg/L  | < 0.0050 | 0.0050            | U         | 0.0029 | 0.01 | 10/21/2025    |
| Sample ID: <b>CCB2</b><br>Hexavalent Chromium | mg/L  | < 0.0050 | 0.0050            | U         | 0.0029 | 0.01 | 10/21/2025    |
| Sample ID: <b>CCB3</b><br>Hexavalent Chromium | mg/L  | < 0.0050 | 0.0050            | U         | 0.0029 | 0.01 | 10/21/2025    |
| Sample ID: <b>CCB4</b><br>Hexavalent Chromium | mg/L  | < 0.0050 | 0.0050            | U         | 0.0029 | 0.01 | 10/21/2025    |

### Initial and Continuing Calibration Blank Summary

**Client:** ICE Service Group, Inc.

**SDG No.:** Q3399

**Project:** NWIRP Northrup Grumman Site – Bethpage, NY

**RunNo.:** LB137602

| Analyte                                    | Units | Result   | Acceptance Limits | Conc Qual | MDL     | RDL   | Analysis Date |
|--------------------------------------------|-------|----------|-------------------|-----------|---------|-------|---------------|
| Sample ID: <b>ICB1</b><br>Reactive Cyanide | mg/L  | < 0.0025 | 0.0025            | U         | 0.00096 | 0.005 | 10/21/2025    |
| Sample ID: <b>CCB1</b><br>Reactive Cyanide | mg/L  | < 0.0025 | 0.0025            | U         | 0.00096 | 0.005 | 10/21/2025    |
| Sample ID: <b>CCB2</b><br>Reactive Cyanide | mg/L  | < 0.0025 | 0.0025            | U         | 0.00096 | 0.005 | 10/21/2025    |
| Sample ID: <b>CCB3</b><br>Reactive Cyanide | mg/L  | < 0.0025 | 0.0025            | U         | 0.00096 | 0.005 | 10/21/2025    |
| Sample ID: <b>CCB4</b><br>Reactive Cyanide | mg/L  | < 0.0025 | 0.0025            | U         | 0.00096 | 0.005 | 10/21/2025    |

### Initial and Continuing Calibration Blank Summary

**Client:** ICE Service Group, Inc.

**SDG No.:** Q3399

**Project:** NWIRP Northrup Grumman Site – Bethpage, NY

**RunNo.:** LB137602

| Analyte | Units | Result | Acceptance<br>Limits | Conc<br>Qual | MDL | RDL | Analysis<br>Date |
|---------|-------|--------|----------------------|--------------|-----|-----|------------------|
|---------|-------|--------|----------------------|--------------|-----|-----|------------------|

## Preparation Blank Summary

**Client:** ICE Service Group, Inc.

**SDG No.:** Q3399

**Project:** NWIRP Northrup Grumman Site – Bethpage, NY

| Analyte                                             | Units | Result   | Acceptance Limits | Conc Qual | MDL    | RDL  | Analysis Date |
|-----------------------------------------------------|-------|----------|-------------------|-----------|--------|------|---------------|
| Sample ID: <b>PB170174BL</b><br>Reactive Cyanide    | mg/Kg | < 0.0250 | 0.0250            | U         | 0.0084 | 0.05 | 10/21/2025    |
| Sample ID: <b>PB170189BL</b><br>Hexavalent Chromium | mg/Kg | < 0.2000 | 0.2000            | U         | 0.07   | 0.4  | 10/21/2025    |
| Sample ID: <b>PB170195BL</b><br>Reactive Sulfide    | mg/Kg | < 5.0000 | 5.0000            | U         | 0.201  | 10   | 10/22/2025    |

## Matrix Spike Summary

|                   |                                            |                                         |          |
|-------------------|--------------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ICE Service Group, Inc.                    | <b>SDG No.:</b>                         | Q3399    |
| <b>Project:</b>   | NWIRP Northrup Grumman Site – Bethpage, NY | <b>Sample ID:</b>                       | Q3403-01 |
| <b>Client ID:</b> | MH-18MS                                    | <b>Percent Solids for Spike Sample:</b> | 91.1     |

| Analyte             | Units | Acceptance<br>Limit %R | Spiked<br>Result | Conc.<br>Qualifier | Sample<br>Result | Conc.<br>Qualifier | Spike<br>Added | Dilution<br>Factor | %<br>Rec | Qual | Analysis<br>Date |
|---------------------|-------|------------------------|------------------|--------------------|------------------|--------------------|----------------|--------------------|----------|------|------------------|
| Hexavalent Chromium | mg/Kg | 75-125                 | 1360             |                    | 0.076            | U                  | 1410           | 40                 | 96       |      | 10/21/2025       |

## Matrix Spike Summary

|                   |                                            |                                         |          |
|-------------------|--------------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ICE Service Group, Inc.                    | <b>SDG No.:</b>                         | Q3399    |
| <b>Project:</b>   | NWIRP Northrup Grumman Site – Bethpage, NY | <b>Sample ID:</b>                       | Q3403-01 |
| <b>Client ID:</b> | MH-18MS                                    | <b>Percent Solids for Spike Sample:</b> | 91.1     |

| Analyte             | Units | Acceptance<br>Limit %R | Spiked<br>Result | Conc.<br>Qualifier | Sample<br>Result | Conc.<br>Qualifier | Spike<br>Added | Dilution<br>Factor | %<br>Rec | Qual | Analysis<br>Date |
|---------------------|-------|------------------------|------------------|--------------------|------------------|--------------------|----------------|--------------------|----------|------|------------------|
| Hexavalent Chromium | mg/Kg | 85-115                 | 40.4             |                    | 0.076            | U                  | 43.9           | 2                  | 92       |      | 10/21/2025       |

## Matrix Spike Summary

|                   |                                            |                                         |          |
|-------------------|--------------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ICE Service Group, Inc.                    | <b>SDG No.:</b>                         | Q3399    |
| <b>Project:</b>   | NWIRP Northrup Grumman Site – Bethpage, NY | <b>Sample ID:</b>                       | Q3403-01 |
| <b>Client ID:</b> | MH-18MS                                    | <b>Percent Solids for Spike Sample:</b> | 91.1     |

| Analyte             | Units | Acceptance<br>Limit %R | Spiked<br>Result | Conc.<br>Qualifier | Sample<br>Result | Conc.<br>Qualifier | Spike<br>Added | Dilution<br>Factor | %<br>Rec | Qual | Analysis<br>Date |
|---------------------|-------|------------------------|------------------|--------------------|------------------|--------------------|----------------|--------------------|----------|------|------------------|
| Hexavalent Chromium | mg/Kg | 75-125                 | 38.1             |                    | 0.076            | U                  | 43.9           | 2                  | 87       |      | 10/21/2025       |

### Duplicate Sample Summary

|                   |                                            |                                         |          |
|-------------------|--------------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ICE Service Group, Inc.                    | <b>SDG No.:</b>                         | Q3399    |
| <b>Project:</b>   | NWIRP Northrup Grumman Site – Bethpage, NY | <b>Sample ID:</b>                       | Q3368-06 |
| <b>Client ID:</b> | OUTSIDE-DUMPSTERDUP                        | <b>Percent Solids for Spike Sample:</b> | 67.4     |

| Analyte          | Units | Acceptance Limit | Sample Result | Conc. Qualifier | Duplicate Result | Conc. Qualifier | Dilution Factor | RPD/AD | Qual | Analysis Date |
|------------------|-------|------------------|---------------|-----------------|------------------|-----------------|-----------------|--------|------|---------------|
| Reactive Cyanide | mg/Kg | +/-20            | 0.0083        | U               | 0.0083           | U               | 1               | 0      |      | 10/21/2025    |
| Corrosivity      | pH    | +/-20            | 7.00          |                 | 7.02             |                 | 1               | 0.29   |      | 10/21/2025    |

## Duplicate Sample Summary

|                                                            |                                             |
|------------------------------------------------------------|---------------------------------------------|
| <b>Client:</b> ICE Service Group, Inc.                     | <b>SDG No.:</b> Q3399                       |
| <b>Project:</b> NWIRP Northrup Grumman Site – Bethpage, NY | <b>Sample ID:</b> Q3392-04                  |
| <b>Client ID:</b> MH-20DUP                                 | <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 |
|------------------|-------|------------------|---------------|-----------------|------------------|-----------------|-----------------|--------|------|---------------|
| Reactive Sulfide | mg/Kg | +/-20            | 4.74          | J               | 4.74             | J               | 1               | 0      |      | 10/22/2025    |

### Duplicate Sample Summary

|                   |                                            |                                         |          |
|-------------------|--------------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ICE Service Group, Inc.                    | <b>SDG No.:</b>                         | Q3399    |
| <b>Project:</b>   | NWIRP Northrup Grumman Site – Bethpage, NY | <b>Sample ID:</b>                       | Q3399-01 |
| <b>Client ID:</b> | COMP-ROLLOFFDUP                            | <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            | 6.99          |                 | 7.00             |                 | 1               | 0.14   |      | 10/22/2025    |
| Paint Filter | ml/100gm | +/-20            | 1.00          | U               | 1.00             | U               | 1               | 0      |      | 10/22/2025    |

### Duplicate Sample Summary

|                   |                                            |                                         |          |
|-------------------|--------------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ICE Service Group, Inc.                    | <b>SDG No.:</b>                         | Q3399    |
| <b>Project:</b>   | NWIRP Northrup Grumman Site – Bethpage, NY | <b>Sample ID:</b>                       | Q3399-02 |
| <b>Client ID:</b> | COMP-ROLLOFFDUP                            | <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      |      | 10/22/2025    |

### Duplicate Sample Summary

|                   |                                            |                                         |          |
|-------------------|--------------------------------------------|-----------------------------------------|----------|
| <b>Client:</b>    | ICE Service Group, Inc.                    | <b>SDG No.:</b>                         | Q3399    |
| <b>Project:</b>   | NWIRP Northrup Grumman Site – Bethpage, NY | <b>Sample ID:</b>                       | Q3403-01 |
| <b>Client ID:</b> | MH-18DUP                                   | <b>Percent Solids for Spike Sample:</b> | 91.1     |

| Analyte             | Units | Acceptance Limit | Sample Result | Conc. Qualifier | Duplicate Result | Conc. Qualifier | Dilution Factor | RPD/AD | Qual | Analysis Date |
|---------------------|-------|------------------|---------------|-----------------|------------------|-----------------|-----------------|--------|------|---------------|
| Hexavalent Chromium | mg/Kg | +/-20            | 0.076         | U               | 0.076            | U               | 1               | 0      |      | 10/21/2025    |

### Laboratory Control Sample Summary

|                 |                                            |                 |          |
|-----------------|--------------------------------------------|-----------------|----------|
| <b>Client:</b>  | ICE Service Group, Inc.                    | <b>SDG No.:</b> | Q3399    |
| <b>Project:</b> | NWIRP Northrup Grumman Site – Bethpage, NY | <b>Run No.:</b> | LB137601 |

| Analyte              | Units | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|----------------------|-------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID PB170189BS |       |            |        |                 |            |                 |                     |               |
| Hexavalent Chromium  | mg/Kg | 20         | 19.8   |                 | 99         | 1               | 84-110              | 10/21/2025    |



# RAW DATA

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

# Analytical Summary Report

Analysis Method: 7196A

ANALYST: rubina

Parameter: ~~Hexavalent Chromium~~

SUPERVISOR REVIEW BY: Iwona

Run Number: LB137601

pH Meter ID: WC pH Meter-1

| Reagent/Standard                  | Lot/Log # |
|-----------------------------------|-----------|
| hexavalent chromium color reagent | WP115235  |
| 5N sulfuric acid                  | WP112831  |
| HNO3 Hex-Chrome, 5M               | WP112830  |
| Hexchrome Cleaning Solution       | WP114310  |

Intercept: 0.0002

Slope: 0.7659

Regression: 0.999913

| 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            | 7.23    | 1.67     | 0.000           | 0.000 | 0.000                 | -0.00         |      | 10/21/2025 | 15:45     |
| 2   | CAL2   | 0.01              | 1  | 100              | 100            | 7.52    | 1.84     | 0.000           | 0.009 | 0.009                 | 0.011         | 10   | 10/21/2025 | 15:45     |
| 3   | CAL3   | 0.025             | 1  | 100              | 100            | 7.47    | 1.88     | 0.000           | 0.021 | 0.021                 | 0.027         | 8    | 10/21/2025 | 15:46     |
| 4   | CAL4   | 0.05              | 1  | 100              | 100            | 7.54    | 1.90     | 0.000           | 0.039 | 0.039                 | 0.050         | 0    | 10/21/2025 | 15:46     |
| 5   | CAL5   | 0.1               | 1  | 100              | 100            | 7.42    | 1.97     | 0.000           | 0.078 | 0.078                 | 0.101         | 1    | 10/21/2025 | 15:47     |
| 6   | CAL6   | 0.5               | 1  | 100              | 100            | 7.39    | 1.90     | 0.000           | 0.375 | 0.375                 | 0.489         | -2.2 | 10/21/2025 | 15:47     |
| 7   | CAL7   | 1                 | 1  | 100              | 100            | 7.50    | 1.97     | 0.000           | 0.770 | 0.770                 | 1.005         | 0.5  | 10/21/2025 | 15:48     |

# Analytical Summary Report

Analysis Method: 7196A

ANALYST:rubina

Parameter: Hexavalent Chromium

SUPERVISOR REVIEW BY:Iwona

Run Number: LB137601

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            | 7.40    | 1.90     | 0.000          | 0.379 | 0.379                 | 0.495                      | 10/21/2025 | 15:48     |
| 2   | ICB        |            | 1  | 100                 | 100            | 7.34    | 1.96     | 0.000          | 0.000 | 0.000                 | 0.000                      | 10/21/2025 | 15:49     |
| 3   | CCV1       | 0.5        | 1  | 100                 | 100            | 7.36    | 2.07     | 0.000          | 0.380 | 0.380                 | 0.496                      | 10/21/2025 | 15:49     |
| 4   | CCB1       |            | 1  | 100                 | 100            | 7.40    | 1.91     | 0.000          | 0.000 | 0.000                 | 0.000                      | 10/21/2025 | 15:50     |
| 5   | RL Check   | 0.01       | 1  | 100                 | 100            | 7.42    | 2.02     | 0.000          | 0.010 | 0.010                 | 0.013                      | 10/21/2025 | 15:50     |
| 6   | PB170189BL |            | 1  | 2.50                | 100            | 7.45    | 1.84     | 0.000          | 0.000 | 0.000                 | 0.000                      | 10/21/2025 | 15:51     |
| 7   | PB170189BS | 20         | 1  | 2.50                | 100            | 7.52    | 2.07     | 0.000          | 0.379 | 0.379                 | 0.495                      | 10/21/2025 | 15:51     |
| 8   | Q3375-01   |            | 1  | 2.57                | 100            | 7.52    | 1.92     | 0.020          | 0.020 | 0.000                 | 0.000                      | 10/21/2025 | 15:52     |
| 9   | Q3375-02   |            | 1  | 2.51                | 100            | 7.50    | 1.88     | 0.006          | 0.007 | 0.001                 | 0.001                      | 10/21/2025 | 15:52     |
| 10  | Q3375-03   |            | 1  | 2.54                | 100            | 7.59    | 1.99     | 0.003          | 0.004 | 0.001                 | 0.001                      | 10/21/2025 | 15:53     |
| 11  | Q3375-04   |            | 1  | 2.52                | 100            | 7.42    | 2.10     | 0.021          | 0.021 | 0.000                 | 0.000                      | 10/21/2025 | 15:53     |
| 12  | Q3375-05   |            | 1  | 2.55                | 100            | 7.44    | 2.00     | 0.025          | 0.026 | 0.001                 | 0.001                      | 10/21/2025 | 15:54     |
| 13  | Q3376-01   |            | 1  | 2.57                | 100            | 7.60    | 1.90     | 0.026          | 0.026 | 0.000                 | 0.000                      | 10/21/2025 | 15:54     |
| 14  | Q3376-02   |            | 1  | 2.54                | 100            | 7.55    | 1.94     | 0.025          | 0.026 | 0.001                 | 0.001                      | 10/21/2025 | 15:55     |
| 15  | Q3376-03   |            | 1  | 2.53                | 100            | 7.47    | 2.11     | 0.024          | 0.024 | 0.000                 | 0.000                      | 10/21/2025 | 15:55     |
| 16  | CCV2       | 0.5        | 1  | 100                 | 100            | 7.57    | 1.97     | 0.000          | 0.376 | 0.376                 | 0.491                      | 10/21/2025 | 15:56     |
| 17  | CCB2       |            | 1  | 100                 | 100            | 7.50    | 1.86     | 0.000          | 0.001 | 0.001                 | 0.001                      | 10/21/2025 | 15:56     |
| 18  | Q3376-04   |            | 1  | 2.55                | 100            | 7.36    | 2.17     | 0.020          | 0.021 | 0.001                 | 0.001                      | 10/21/2025 | 15:57     |
| 19  | Q3376-05   |            | 1  | 2.55                | 100            | 7.36    | 1.92     | 0.011          | 0.012 | 0.001                 | 0.001                      | 10/21/2025 | 15:57     |
| 20  | Q3383-01   |            | 1  | 2.52                | 100            | 7.46    | 1.90     | 0.000          | 0.001 | 0.001                 | 0.001                      | 10/21/2025 | 15:58     |
| 21  | Q3397-01   |            | 1  | 2.52                | 100            | 7.43    | 2.02     | 0.000          | 0.001 | 0.001                 | 0.001                      | 10/21/2025 | 15:58     |
| 22  | Q3399-01   |            | 1  | 2.55                | 100            | 7.34    | 1.80     | 0.000          | 0.000 | 0.000                 | 0.000                      | 10/21/2025 | 15:59     |
| 23  | Q3402-01   |            | 1  | 2.52                | 100            | 7.41    | 2.06     | 0.034          | 0.034 | 0.000                 | 0.000                      | 10/21/2025 | 15:59     |
| 24  | Q3402-04   |            | 1  | 2.53                | 100            | 7.46    | 2.14     | 0.036          | 0.037 | 0.001                 | 0.001                      | 10/21/2025 | 16:00     |
| 25  | Q3402-07   |            | 1  | 2.51                | 100            | 7.56    | 2.10     | 0.014          | 0.014 | 0.000                 | 0.000                      | 10/21/2025 | 16:00     |
| 26  | Q3402-10   |            | 1  | 2.54                | 100            | 7.53    | 2.01     | 0.030          | 0.031 | 0.001                 | 0.001                      | 10/21/2025 | 16:01     |
| 27  | Q3403-01   |            | 1  | 2.53                | 100            | 7.36    | 2.24     | 0.000          | 0.000 | 0.000                 | 0.000                      | 10/21/2025 | 16:01     |
| 28  | CCV3       | 0.5        | 1  | 100                 | 100            | 7.55    | 2.10     | 0.000          | 0.380 | 0.380                 | 0.496                      | 10/21/2025 | 16:02     |
| 29  | CCB3       |            | 1  | 100                 | 100            | 7.29    | 2.06     | 0.000          | 0.000 | 0.000                 | 0.000                      | 10/21/2025 | 16:02     |
| 30  | Q3403-01DU |            | 1  | 2.53                | 100            | 7.40    | 2.20     | 0.000          | 0.000 | 0.000                 | 0.000                      | 10/21/2025 | 16:03     |
| 31  | Q3403-01MS | 40         | 2  | 2.55                | 100            | 7.42    | 2.17     | 0.000          | 0.339 | 0.339                 | 0.442                      | 10/21/2025 | 16:03     |
| 32  | Q3403-01MS | 1284       | 40 | 2.53                | 100            | 7.45    | 2.19     | 0.000          | 0.599 | 0.599                 | 0.782                      | 10/21/2025 | 16:04     |
| 33  | Q3403-01MS | 40         | 2  | 2.56                | 100            | 7.36    | 2.25     | 0.000          | 0.361 | 0.361                 | 0.471                      | 10/21/2025 | 16:04     |
| 34  | Q3412-01   |            | 1  | 2.58                | 100            | 7.52    | 2.19     | 0.010          | 0.010 | 0.000                 | 0.000                      | 10/21/2025 | 16:05     |
| 35  | CCV4       | 0.5        | 1  | 100                 | 100            | 7.40    | 1.94     | 0.000          | 0.375 | 0.375                 | 0.489                      | 10/21/2025 | 16:05     |
| 36  | CCB4       |            | 1  | 100                 | 100            | 7.52    | 1.70     | 0.000          | 0.000 | 0.000                 | 0.000                      | 10/21/2025 | 16:06     |

Lb137602

Test results

Aquakem 7.2AQ1

Page: 1

Alliance Technical Group  
284 Sheffield Street, Mountainside, NJ 07092Reviewed by : RM Instrument ID : Konelab

10/21/2025 14:42

Test: Total CN

| Sample Id   | Result  | Dil. 1 + | Response | Errors |
|-------------|---------|----------|----------|--------|
| ICV1        | 93.270  | 0.0      | 0.081    |        |
| ICB1        | 0.108   | 0.0      | 0.001    |        |
| CCV1        | 242.582 | 0.0      | 0.210    |        |
| CCB1        | 0.428   | 0.0      | 0.001    |        |
| PB170152BL  | 0.419   | 0.0      | 0.001    |        |
| Q3369-04    | 0.211   | 0.0      | 0.001    |        |
| Q3369-04DUP | 0.212   | 0.0      | 0.001    |        |
| Q3369-08    | 0.252   | 0.0      | 0.001    |        |
| Q3374-04    | 0.317   | 0.0      | 0.001    |        |
| Q3374-08    | 0.209   | 0.0      | 0.001    |        |
| Q3381-02    | 0.306   | 0.0      | 0.001    |        |
| Q3381-04    | 0.317   | 0.0      | 0.001    |        |
| Q3381-06    | 0.159   | 0.0      | 0.001    |        |
| Q3381-08    | 0.553   | 0.0      | 0.001    |        |
| CCV2        | 239.222 | 0.0      | 0.207    |        |
| CCB2        | 0.299   | 0.0      | 0.001    |        |
| Q3388-02    | 0.274   | 0.0      | 0.001    |        |
| Q3392-04    | 0.387   | 0.0      | 0.001    |        |
| Q3392-08    | 0.221   | 0.0      | 0.001    |        |
| Q3390-02    | 0.173   | 0.0      | 0.001    |        |
| PB170174BL  | 0.184   | 0.0      | 0.001    |        |
| Q3368-07    | 0.806   | 0.0      | 0.001    |        |
| Q3397-04    | 0.098   | 0.0      | 0.001    |        |
| Q3368-06    | 0.229   | 0.0      | 0.001    |        |
| Q3368-06DUP | 0.254   | 0.0      | 0.001    |        |
| Q3399-02    | 0.516   | 0.0      | 0.001    |        |
| CCV3        | 238.678 | 0.0      | 0.207    |        |
| CCB3        | 0.112   | 0.0      | 0.001    |        |
| Q3402-03    | 0.378   | 0.0      | 0.001    |        |
| Q3402-06    | 0.465   | 0.0      | 0.001    |        |
| Q3402-09    | 0.351   | 0.0      | 0.001    |        |
| Q3402-12    | 0.478   | 0.0      | 0.001    |        |
| Q3403-04    | 0.336   | 0.0      | 0.001    |        |
| Q3404-02    | 0.555   | 0.0      | 0.001    |        |
| Q3404-06    | 0.107   | 0.0      | 0.001    |        |
| Q3406-02    | 0.076   | 0.0      | 0.000    |        |
| Q3412-04    | 0.046   | 0.0      | 0.000    |        |
| CCV4        | 248.210 | 0.0      | 0.215    |        |
| CCB4        | 0.229   | 0.0      | 0.001    |        |
| N           | 39      |          |          |        |
| Mean        | 27.488  |          |          |        |
| SD          | 75.0234 |          |          |        |
| CV%         | 272.93  |          |          |        |

Aquakem v. 7.2AQ1

Results from time period:

Tue Oct 21 12:16:50 2025

Tue Oct 21 12:53:54 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         | 0.1297   | µg/l        | 10/21/2025 10:18:49  |      |
| 5.0PPBCN    | A          | Total CN     | P         | 5.0315   | µg/l        | 10/21/2025 10:18:50  |      |
| 10PPBCN     | A          | Total CN     | P         | 10.2776  | µg/l        | 10/21/2025 10:18:51  |      |
| 50PPBCN     | A          | Total CN     | P         | 49.3188  | µg/l        | 10/21/2025 10:18:52  |      |
| 100PPBCN    | A          | Total CN     | P         | 99.598   | µg/l        | 10/21/2025 10:18:53  |      |
| 250PPBCN    | A          | Total CN     | P         | 251.0035 | µg/l        | 10/21/2025 10:18:54  |      |
| 500PPBCN    | A          | Total CN     | P         | 499.6409 | µg/l        | 10/21/2025 10:18:55  |      |
| ICV1        | S          | Total CN     | P         | 93.2701  | µg/l        | 10/21/2025 12:16:51  |      |
| ICB1        | S          | Total CN     | P         | 0.1085   | µg/l        | 10/21/2025 12:16:52  |      |
| CCV1        | S          | Total CN     | P         | 242.5818 | µg/l        | 10/21/2025 12:16:54  |      |
| CCB1        | S          | Total CN     | P         | 0.4275   | µg/l        | 10/21/2025 12:16:57  |      |
| PB170152BL  | S          | Total CN     | P         | 0.4188   | µg/l        | 10/21/2025 12:16:58  |      |
| Q3369-04    | S          | Total CN     | P         | 0.2113   | µg/l        | 10/21/2025 12:24:25  |      |
| Q3369-04DUP | S          | Total CN     | P         | 0.2123   | µg/l        | 10/21/2025 12:24:26  |      |
| Q3369-08    | S          | Total CN     | P         | 0.252    | µg/l        | 10/21/2025 12:24:28  |      |
| Q3374-04    | S          | Total CN     | P         | 0.3167   | µg/l        | 10/21/2025 12:24:29  |      |
| Q3374-08    | S          | Total CN     | P         | 0.2089   | µg/l        | 10/21/2025 12:24:30  |      |
| Q3381-02    | S          | Total CN     | P         | 0.306    | µg/l        | 10/21/2025 12:24:31  |      |
| Q3381-04    | S          | Total CN     | P         | 0.3168   | µg/l        | 10/21/2025 12:24:32  |      |
| Q3381-06    | S          | Total CN     | P         | 0.1594   | µg/l        | 10/21/2025 12:24:33  |      |
| Q3381-08    | S          | Total CN     | P         | 0.5531   | µg/l        | 10/21/2025 12:24:34  |      |
| CCV2        | S          | Total CN     | P         | 239.2216 | µg/l        | 10/21/2025 12:32:03  |      |
| CCB2        | S          | Total CN     | P         | 0.2993   | µg/l        | 10/21/2025 12:32:05  |      |
| Q3388-02    | S          | Total CN     | P         | 0.2745   | µg/l        | 10/21/2025 12:32:06  |      |
| Q3392-04    | S          | Total CN     | P         | 0.3874   | µg/l        | 10/21/2025 12:32:07  |      |
| Q3392-08    | S          | Total CN     | P         | 0.2215   | µg/l        | 10/21/2025 12:32:08  |      |
| Q3390-02    | S          | Total CN     | P         | 0.1731   | µg/l        | 10/21/2025 12:32:09  |      |
| PB170174BL  | S          | Total CN     | P         | 0.1835   | µg/l        | 10/21/2025 12:32:10  |      |
| Q3368-07    | S          | Total CN     | P         | 0.8059   | µg/l        | 10/21/2025 12:39:37  |      |
| Q3397-04    | S          | Total CN     | P         | 0.0978   | µg/l        | 10/21/2025 12:39:39  |      |
| Q3368-06    | S          | Total CN     | P         | 0.2288   | µg/l        | 10/21/2025 12:39:41  |      |
| Q3368-06DUP | S          | Total CN     | P         | 0.2539   | µg/l        | 10/21/2025 12:39:42  |      |
| Q3399-02    | S          | Total CN     | P         | 0.5156   | µg/l        | 10/21/2025 12:39:43  |      |
| CCV3        | S          | Total CN     | P         | 238.6779 | µg/l        | 10/21/2025 12:39:45  |      |
| CCB3        | S          | Total CN     | P         | 0.1122   | µg/l        | 10/21/2025 12:47:09  |      |
| Q3402-03    | S          | Total CN     | P         | 0.3777   | µg/l        | 10/21/2025 12:47:11  |      |
| Q3402-06    | S          | Total CN     | P         | 0.4646   | µg/l        | 10/21/2025 12:47:12  |      |
| Q3402-09    | S          | Total CN     | P         | 0.3514   | µg/l        | 10/21/2025 12:47:13  |      |
| Q3402-12    | S          | Total CN     | P         | 0.4784   | µg/l        | 10/21/2025 12:47:14  |      |

|          |   |          |   |               |                     |
|----------|---|----------|---|---------------|---------------------|
| Q3403-04 | S | Total CN | P | 0.3364 µg/l   | 10/21/2025 12:47:15 |
| Q3404-02 | S | Total CN | P | 0.5547 µg/l   | 10/21/2025 12:47:16 |
| Q3404-06 | S | Total CN | P | 0.1068 µg/l   | 10/21/2025 12:47:17 |
| Q3406-02 | S | Total CN | P | 0.0763 µg/l   | 10/21/2025 12:53:46 |
| Q3412-04 | S | Total CN | P | 0.0461 µg/l   | 10/21/2025 12:53:47 |
| CCV4     | S | Total CN | P | 248.2096 µg/l | 10/21/2025 12:53:52 |
| CCB4     | S | Total CN | P | 0.2295 µg/l   | 10/21/2025 12:53:54 |

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Calibration results      Aquakem 7.2AQ1      Page: 1

Alliance Technical Group  
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM      Instrument ID : Konelab

10/21/2025 10:21

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Test      Total CN

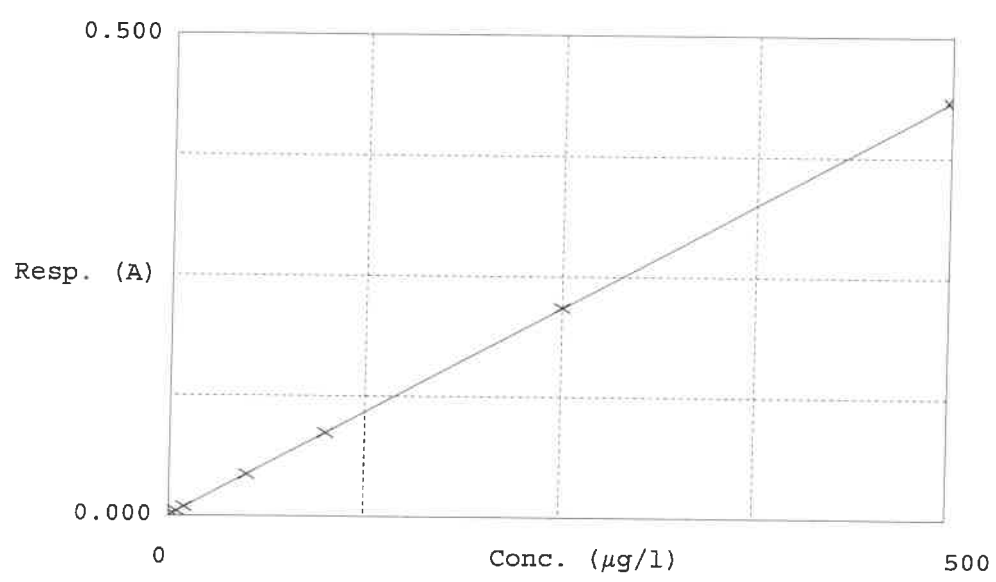
Accepted      10/21/2025 10:21

Factor      1156

Bias      0

Coeff. of det.      0.999991

Errors



|   | Calibrator | Response | Calc. con. | Conc.    | Re<br>Errors |
|---|------------|----------|------------|----------|--------------|
| 1 | 0.0PPBCN   | 0.001    | 0.1297     | 0.0000   | -            |
| 2 | 5.0PPBCN   | 0.005    | 5.0315     | 5.0000   | 0.6          |
| 3 | 10PPBCN    | 0.009    | 10.2776    | 10.0000  | 2.8          |
| 4 | 50PPBCN    | 0.043    | 49.3188    | 50.0000  | -1.4         |
| 5 | 100PPBCN   | 0.087    | 99.5980    | 100.0000 | -0.4         |
| 6 | 250PPBCN   | 0.218    | 251.0035   | 250.0000 | 0.4          |
| 7 | 500PPBCN   | 0.433    | 499.6409   | 500.0000 | -0.1         |

10/21/2025  
RM

## Analytical Summary Report

Analysis Method: 9045D  
Parameter: Corrosivity  
Run Number: LB137603  
Balance ID: WC SC-7

Analyst By: jignesh  
Supervisor Review By: Iwona  
Slope: 98.6  
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].

True Value of CCV3 = 2.00 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        | 10/21/2025 | 12:30     |
| 2   | CAL2        | 1  | Water  | NA          | NA          | 20.2             | 7.01        | 10/21/2025 | 12:31     |
| 3   | CAL3        | 1  | Water  | NA          | NA          | 20.3             | 10.02       | 10/21/2025 | 12:33     |
| 4   | ICV         | 1  | Water  | NA          | NA          | 20.2             | 6.98        | 10/21/2025 | 12:35     |
| 5   | CCV1        | 1  | Water  | NA          | NA          | 20.3             | 2.01        | 10/21/2025 | 12:36     |
| 6   | Q3368-06    | 1  | Solid  | 20.02       | 20          | 20.7             | 7.00        | 10/21/2025 | 12:44     |
| 7   | Q3368-06DUP | 1  | Solid  | 20.03       | 20          | 20.9             | 7.02        | 10/21/2025 | 12:46     |
| 8   | Q3368-07    | 1  | Solid  | 20.02       | 20          | 20.7             | 5.42        | 10/21/2025 | 12:49     |
| 9   | Q3397-04    | 1  | Solid  | 20.03       | 20          | 20.4             | 7.72        | 10/21/2025 | 12:50     |
| 10  | Q3399-02    | 1  | Solid  | 20.01       | 20          | 20.1             | 6.99        | 10/21/2025 | 13:00     |
| 11  | Q3402-03    | 1  | Solid  | 20.03       | 20          | 20.1             | 7.69        | 10/21/2025 | 13:02     |
| 12  | Q3402-06    | 1  | Solid  | 20.04       | 20          | 20.2             | 7.30        | 10/21/2025 | 13:05     |
| 13  | Q3402-09    | 1  | Solid  | 20.05       | 20          | 20.1             | 7.27        | 10/21/2025 | 13:10     |
| 14  | Q3402-12    | 1  | Solid  | 20.03       | 20          | 20.1             | 7.25        | 10/21/2025 | 13:15     |
| 15  | Q3403-04    | 1  | Solid  | 20.02       | 20          | 20.3             | 5.56        | 10/21/2025 | 13:20     |
| 16  | CCV2        | 1  | Water  | NA          | NA          | 20.3             | 12.02       | 10/21/2025 | 13:25     |
| 17  | Q3404-02    | 1  | Solid  | 20.03       | 20          | 20.1             | 6.02        | 10/21/2025 | 13:30     |
| 18  | Q3404-06    | 1  | Solid  | 20.04       | 20          | 20.1             | 5.69        | 10/21/2025 | 13:35     |
| 19  | Q3406-02    | 1  | Solid  | 20.03       | 20          | 20.1             | 5.96        | 10/21/2025 | 13:44     |
| 20  | Q3412-04    | 1  | Solid  | 20.02       | 20          | 20.3             | 8.76        | 10/21/2025 | 13:50     |

| Seq | LabID | DF | Matrix | Weight<br>(gm) | Volume<br>(ml) | Temperature<br>(°C) | Result<br>(pH) | Anal Date  | An    |
|-----|-------|----|--------|----------------|----------------|---------------------|----------------|------------|-------|
| 21  | CCV3  | 1  | Water  | NA             | NA             | 20.3                | 2.01           | 10/21/2025 | 14:00 |

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## WORKLIST(Hardcopy Internal Chain)

10/21/25

WorkList Name : corrosivity q3406

WorkList ID : 192578

Department : Wet-Chemistry

Date : 10-21-2025 09:35:59

| Sample   | Customer Sample  | Matrix | Test        | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|------------------|--------|-------------|--------------|----------|-----------------------------|--------------|--------|
| Q3368-06 | OUTSIDE-DUMPSTER | Solid  | Corrosivity | Cool 4 deg C | ARAM01   | D41                         | 10/16/2025   | 9045D  |
| Q3368-07 | PRESS-SLUDGE     | Solid  | Corrosivity | Cool 4 deg C | ARAM01   | D41                         | 10/16/2025   | 9045D  |
| Q3397-04 | TP-7-WC          | Solid  | Corrosivity | Cool 4 deg C | PSEG03   | D31                         | 10/18/2025   | 9045D  |
| Q3399-02 | COMP-ROLLOFF     | Solid  | Corrosivity | Cool 4 deg C | ICES02   | D41                         | 10/20/2025   | 9045D  |
| Q3402-03 | 41-LA            | Solid  | Corrosivity | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9045D  |
| Q3402-06 | 41-RA            | Solid  | Corrosivity | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9045D  |
| Q3402-09 | 41-LB            | Solid  | Corrosivity | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9045D  |
| Q3402-12 | 41-RB            | Solid  | Corrosivity | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9045D  |
| Q3403-04 | MH-18            | Solid  | Corrosivity | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9045D  |
| Q3404-02 | MOO-25-0285-0288 | Solid  | Corrosivity | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | 9045D  |
| Q3404-06 | MOO-25-0292      | Solid  | Corrosivity | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | 9045D  |
| Q3406-02 | ARS20-0037       | Solid  | Corrosivity | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | 9045D  |
| Q3412-04 | TP-6             | Solid  | Corrosivity | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9045D  |

Date/Time 10/21/25 12:00

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

## Analytical Summary Report

Analysis Method: 9045D

Analyst By : jignesh

Parameter: pH

Supervisor Review By : Iwona

Run Number: LB137607

Slope : 98.2

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          | 20.3             | 4.01        | 10/22/2025 | 09:47     |
| 2   | CAL2        | 1  | Water  | NA          | NA          | 20.2             | 7.00        | 10/22/2025 | 09:48     |
| 3   | CAL3        | 1  | Water  | NA          | NA          | 20.3             | 10.02       | 10/22/2025 | 09:49     |
| 4   | ICV         | 1  | Water  | NA          | NA          | 20.3             | 7.00        | 10/22/2025 | 09:50     |
| 5   | CCV1        | 1  | Water  | NA          | NA          | 20.3             | 2.01        | 10/22/2025 | 10:00     |
| 6   | Q3399-01    | 1  | Solid  | 20.02       | 20          | 20.1             | 6.99        | 10/22/2025 | 10:10     |
| 7   | Q3399-01DUP | 1  | Solid  | 20.03       | 20          | 20.2             | 7.00        | 10/22/2025 | 10:11     |
| 8   | CCV2        | 1  | Water  | NA          | NA          | 20.3             | 12.02       | 10/22/2025 | 10:14     |

WORKLIST(Hardcopy Internal Chain)

✓ 87137607

WorkList Name : ph s q3399      WorkList ID : 192596      Department : Wet-Chemistry      Date : 10-22-2025 08:14:57

| Sample   | Customer Sample | Matrix | Test | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|-----------------|--------|------|--------------|----------|-----------------------------|--------------|--------|
| Q3399-01 | ✓ COMP-ROLLOFF  | Solid  | pH   | Cool 4 deg C | ICES02   | D41                         | 10/20/2025   | 9045D  |

Date/Time 10/22/25 08:25  
Raw Sample Received by: SS WCI  
Raw Sample Relinquished by: AS

Date/Time 10/22/25 12:30  
Raw Sample Received by: SS WCI  
Raw Sample Relinquished by: SS WCI

# Analytical Summary Report

Analysis Method: 9095B  
Parameter: Paint Filter  
Run Number: LB137608

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

| Seq | LabID       | ClientID        | Dilution | Weight(g) | Inst.Conc<br>(ml/100g) | Anal Date  | Anal Time |
|-----|-------------|-----------------|----------|-----------|------------------------|------------|-----------|
| 1   | Q3399-01    | COMP-ROLLOFF    | 1        | 100.02    | 0.00                   | 10/22/2025 | 08:40     |
| 2   | Q3399-01DUP | COMP-ROLLOFFDUP | 1        | 100.04    | 0.00                   | 10/22/2025 | 08:47     |
| 3   | Q3412-01    | TP-6            | 1        | 100.01    | 0.00                   | 10/22/2025 | 08:54     |
| 4   | Q3416-01    | NB-08-10212025  | 1        | 100.03    | 0.00                   | 10/22/2025 | 09:02     |

## WORKLIST(Hardcopy Internal Chain)

6137608

WorkList Name : PF-102225

WorkList ID : 192602

Department : Wet-Chemistry

Date : 10-22-2025 08:25:37

| Sample   | Customer Sample | Matrix | Test         | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|-----------------|--------|--------------|--------------|----------|-----------------------------|--------------|--------|
| Q3399-01 | COMP-ROLLOFF    | Solid  | Paint Filter | Cool 4 deg C | ICES02   | D41                         | 10/20/2025   | 9095B  |
| Q3412-01 | TP-6            | Solid  | Paint Filter | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9095B  |
| Q3416-01 | NB-08-10212025  | Solid  | Paint Filter | Cool 4 deg C | PSEG05   | D31                         | 10/21/2025   | 9095B  |

Date/Time 10/22/25 08:30  
 Raw Sample Received by: EM(WC)  
 Raw Sample Relinquished by: JO(WC)

Date/Time 10/22/25 12:00  
 Raw Sample Received by: JO(WC)  
 Raw Sample Relinquished by: EM(WC)

## Analytical Summary Report

Analysis Method: 1030  
Parameter: Ignitability  
Run Number: LB137609

Reviewed By: Eman  
Supervisor Review By: Iwona

| Seq | LabID       | ClientID         | DF | matrix | Result Status | Burning Rate | Anal Date  | Anal Time |
|-----|-------------|------------------|----|--------|---------------|--------------|------------|-----------|
| 1   | Q3399-02    | COMP-ROLLOFF     | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 09:15     |
| 2   | Q3399-02DUP | COMP-ROLLOFFDUP  | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 09:22     |
| 3   | Q3404-02    | MOO-25-0285-0288 | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 09:29     |
| 4   | Q3404-06    | MOO-25-0292      | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 09:37     |
| 5   | Q3406-02    | ARS20-0037       | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 09:45     |
| 6   | Q3412-01    | TP-6             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 09:52     |
| 7   | Q3412-04    | TP-6             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 10:00     |
| 8   | Q3414-01    | SB-1             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 10:08     |
| 9   | Q3414-02    | SB-2             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 10:15     |
| 10  | Q3414-03    | SB-3             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 10:22     |
| 11  | Q3414-04    | SB-4             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 10:30     |
| 12  | Q3414-05    | SB-5             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 10:37     |
| 13  | Q3414-06    | SB-6             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 10:45     |
| 14  | Q3414-07    | SB-7             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 10:52     |
| 15  | Q3414-08    | SB-8             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 11:00     |
| 16  | Q3414-09    | SB-9             | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 11:07     |
| 17  | Q3414-10    | SB-10            | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 11:15     |
| 18  | Q3414-11    | SB-11            | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 11:22     |
| 19  | Q3414-12    | SB-12            | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 11:30     |
| 20  | Q3414-13    | SB-13            | 1  | Solid  | NO            | 0.00         | 10/22/2025 | 11:37     |

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

## WORKLIST(Hardcopy Internal Chain)

16137609

WorkList Name : IGN-102225

WorkList ID : 192601

Department : Wet-Chemistry

Date : 10-22-2025 08:25:30

| Sample   | Customer Sample  | Matrix | Test         | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|------------------|--------|--------------|--------------|----------|-----------------------------|--------------|--------|
| Q3399-02 | COMP-ROLLOFF     | Solid  | Ignitability | Cool 4 deg C | ICES02   | D41                         | 10/20/2025   | 1030   |
| Q3404-02 | MOO-25-0285-0288 | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | 1030   |
| Q3404-06 | MOO-25-0292      | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | 1030   |
| Q3406-02 | ARS20-0037       | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | 1030   |
| Q3412-01 | TP-6             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 1030   |
| Q3412-04 | TP-6             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 1030   |
| Q3414-01 | SB-1             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-02 | SB-2             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-03 | SB-3             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-04 | SB-4             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-05 | SB-5             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-06 | SB-6             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-07 | SB-7             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-08 | SB-8             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-09 | SB-9             | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-10 | SB-10            | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-11 | SB-11            | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-12 | SB-12            | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |
| Q3414-13 | SB-13            | Solid  | Ignitability | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | 1030   |

Date/Time 10/22/25 08:30

Raw Sample Received by: EM(WC)

Raw Sample Relinquished by: EM(WC)

Date/Time 10/22/25 12:00

Raw Sample Received by: EM(WC)

Raw Sample Relinquished by: EM(WC)

Analysis Method: 9034

ANALYST: Iwona

Parameter: Reactive Sulfide

SUPERVISOR REVIEW BY: jignesh

Run Number: LB137616

Constant: 16000

Normality1: 0.025

Normality2: 0.025

| Reagent/Standard                   | Lot/Log # |
|------------------------------------|-----------|
| SODIUM THIOSULFATE, 0.025N, 4LITRE | W3248     |
| IODINE SOLUTION .025N 1L           | W3213     |
| Starch Solution, 4L                | W3149     |

| Seq | Lab ID      | True Value (mg/l) | DF | Initial Weight (g) | Final Volume (ml) | T1 (ml) | T2 Initial | T2 Final | T2 Diff. (ml) | T1 - T2 Diff (mL) | Value Corrected With Blank | Result (ppm) | Anal Date  | Anal Time |
|-----|-------------|-------------------|----|--------------------|-------------------|---------|------------|----------|---------------|-------------------|----------------------------|--------------|------------|-----------|
| 1   | PB170195BL  |                   | 1  | 5.00               | 50                | 2.00    | 0.00       | 1.94     | 1.94          | 0.06              | 0.00                       | 0.00         | 10/22/2025 | 12:50     |
| 2   | Q3392-04    |                   | 1  | 5.06               | 50                | 2.00    | 0.00       | 1.88     | 1.88          | 0.12              | 0.06                       | 4.74         | 10/22/2025 | 12:53     |
| 3   | Q3392-04DUP |                   | 1  | 5.06               | 50                | 2.00    | 0.00       | 1.88     | 1.88          | 0.12              | 0.06                       | 4.74         | 10/22/2025 | 12:57     |
| 4   | Q3392-08    |                   | 1  | 5.04               | 50                | 2.00    | 0.00       | 1.90     | 1.90          | 0.10              | 0.04                       | 3.17         | 10/22/2025 | 13:00     |
| 5   | Q3399-02    |                   | 1  | 5.03               | 50                | 2.00    | 0.00       | 1.92     | 1.92          | 0.08              | 0.02                       | 1.59         | 10/22/2025 | 13:03     |
| 6   | Q3404-02    |                   | 1  | 5.07               | 50                | 2.00    | 0.00       | 1.90     | 1.90          | 0.10              | 0.04                       | 3.16         | 10/22/2025 | 13:06     |
| 7   | Q3404-06    |                   | 1  | 5.01               | 50                | 2.00    | 0.00       | 1.88     | 1.88          | 0.12              | 0.06                       | 4.79         | 10/22/2025 | 13:10     |
| 8   | Q3406-02    |                   | 1  | 5.03               | 50                | 2.00    | 0.00       | 1.90     | 1.90          | 0.10              | 0.04                       | 3.18         | 10/22/2025 | 13:13     |
| 9   | Q3412-04    |                   | 1  | 5.06               | 50                | 2.00    | 0.00       | 1.86     | 1.86          | 0.14              | 0.08                       | 6.32         | 10/22/2025 | 13:16     |
| 10  | Q3427-04    |                   | 1  | 5.03               | 50                | 2.00    | 0.00       | 1.92     | 1.92          | 0.08              | 0.02                       | 1.59         | 10/22/2025 | 13:20     |
| 11  | PB169848BL  |                   | 1  | 5.00               | 50                | 2.00    | 0.00       | 1.90     | 1.90          | 0.10              | 0.04                       | 3.20         | 10/22/2025 | 13:23     |
| 12  | Q3188-01    |                   | 1  | 5.07               | 50                | 2.00    | 0.00       | 1.88     | 1.88          | 0.12              | 0.06                       | 4.73         | 10/22/2025 | 13:26     |

T1 = Titrant1

T2 = Titrant2

T2 Diff = T2 Final - T2 Initial

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

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

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

SDG No : N/A

Start Digest Date: 10/21/2025 Time : 08:45 Temp : N/A

Matrix : SOIL

End Digest Date: 10/21/2025 Time : 10:15 Temp : N/A

Pipette ID : N/A

Balance ID : WC SC-7

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : N/A

Block ID : MC-1,MC-2

Filter paper ID : N/A

Prep Technician Signature: RM

Weigh By : RM

pH Meter ID : N/A

Supervisor Signature: 12

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

| Chemical Used | ML/SAMPLE USED | Lot Number |
|---------------|----------------|------------|
| 0.25N NaOH    | 50.0ML         | WP113836   |
| N/A           | N/A            | N/A        |
| N/A           | N/A            | N/A        |
| N/A           | N/A            | N/A        |
| N/A           | N/A            | N/A        |
| N/A           | N/A            | N/A        |
| N/A           | N/A            | N/A        |
| N/A           | N/A            | N/A        |
| N/A           | N/A            | N/A        |
| N/A           | N/A            | N/A        |

| LAB SAMPLE ID | CLIENT SAMPLE ID | Comment |
|---------------|------------------|---------|
|               |                  |         |

## Extraction Conformance/Non-Conformance Comments:

N/A

| Date / Time      | Prepped Sample Relinquished By/Location | Received By/Location |
|------------------|-----------------------------------------|----------------------|
| 10/21/2025 10:30 | RM WC                                   | RM WC                |
|                  | Preparation Group                       | Analysis Group       |

| Lab Sample ID | Client Sample ID    | Initial Weight (g) | Final Vol (ml) | pH  | Sulfide | Oxidizing | Nitrate/Nitrite | Comment | Prep Pos |
|---------------|---------------------|--------------------|----------------|-----|---------|-----------|-----------------|---------|----------|
| PB170174BL    | PBS174              | 5.00               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3368-06DUP   | OUTSIDE-DUMPSTERDUP | 5.03               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3368-06      | OUTSIDE-DUMPSTER    | 5.03               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3368-07      | PRESS-SLUDGE        | 5.01               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3397-04      | TP-7-WC             | 5.06               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3399-02      | COMP-ROLLOFF        | 5.04               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3402-03      | 41-LA               | 5.07               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3402-06      | 41-RA               | 5.02               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3402-09      | 41-LB               | 5.07               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3402-12      | 41-RB               | 5.06               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3403-04      | MH-18               | 5.01               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3404-02      | MOO-25-0285-0288    | 5.07               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3404-06      | MOO-25-0292         | 5.04               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3406-02      | ARS20-0037          | 5.06               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3412-04      | TP-6                | 5.01               | 50             | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : rcn-10-21

WorkList ID : 192592

Department : Distillation

Date : 10-21-2025 08:04:51

| Sample   | Customer Sample  | Matrix | Test             | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|------------------|--------|------------------|--------------|----------|-----------------------------|--------------|--------|
| Q3368-06 | OUTSIDE-DUMPSTER | Solid  | Reactive Cyanide | Cool 4 deg C | ARAM01   | D41                         | 10/16/2025   | 9012B  |
| Q3368-07 | PRESS-SLUDGE     | Solid  | Reactive Cyanide | Cool 4 deg C | ARAM01   | D41                         | 10/16/2025   | 9012B  |
| Q3397-04 | TP-7-WC          | Solid  | Reactive Cyanide | Cool 4 deg C | PSEG03   | D31                         | 10/18/2025   | 9012B  |
| Q3399-02 | COMP-ROLLOFF     | Solid  | Reactive Cyanide | Cool 4 deg C | ICES02   | D41                         | 10/20/2025   | 9012B  |
| Q3402-03 | 41-LA            | Solid  | Reactive Cyanide | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9012B  |
| Q3402-06 | 41-RA            | Solid  | Reactive Cyanide | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9012B  |
| Q3402-09 | 41-LB            | Solid  | Reactive Cyanide | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9012B  |
| Q3402-12 | 41-RB            | Solid  | Reactive Cyanide | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9012B  |
| Q3403-04 | MH-18            | Solid  | Reactive Cyanide | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9012B  |
| Q3404-02 | MOO-25-0285-0288 | Solid  | Reactive Cyanide | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | 9012B  |
| Q3404-06 | MOO-25-0292      | Solid  | Reactive Cyanide | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | 9012B  |
| Q3406-02 | ARS20-0037       | Solid  | Reactive Cyanide | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | 9012B  |
| Q3412-04 | TP-6             | Solid  | Reactive Cyanide | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 9012B  |

Date/Time 10/21/2025 08:15  
 Raw Sample Received by: RHL  
 Raw Sample Relinquished by: RHL

Date/Time 10/21/2025 09:20  
 Raw Sample Received by: RHL  
 Raw Sample Relinquished by: RHL

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

SDG No : N/A

Start Digest Date: 10/21/2025 Time : 12:00 Temp : 90 °C

Matrix : SOIL

End Digest Date: 10/21/2025 Time : 13:00 Temp : 95 °C

Pipette ID : WC

*(1 before)* 10/21/2025 13.45 90.2 / RM  
10/21/2025 14.45 95.2 / RM

Balance ID : WC SC-7

Hood ID : HOOD#3

Digestion tube ID : M6054

Block Thermometer ID : WC-Block#1

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

Filter paper ID : 400213

Prep Technician Signature: RM

Weigh By : 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         | WP114900   |
| 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        |

| LAB SAMPLE ID | CLIENT SAMPLE ID | Vol(ml) | Comment  |
|---------------|------------------|---------|----------|
| CAL1          | CAL1             | 2.5ML   | W3112    |
| CAL2          | CAL2             | 0.2ML   | WP115275 |
| CAL3          | CAL3             | 0.5ML   | WP115275 |
| CAL4          | CAL4             | 1ML     | WP115275 |
| 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

10/21/2025 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 |
|-----------------|----------------------------|--------------------|----------------|-----|---------|-----------|-----------------|---------|----------|
| PB170189BL      | PBS189                     | 2.50               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| PB170189BS      | LCS189                     | 2.50               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3375-01        | PR132-S02-074099-20251016  | 2.57               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3375-02        | PR132-S04-000013-20251016  | 2.51               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3375-03        | PR132-S05-000057-20251016  | 2.54               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3375-04        | PR132-S02-010074-20251016  | 2.52               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3375-05        | PR132-DP02-074099-20251016 | 2.55               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3376-01        | PR132-S05-057082-20251016  | 2.57               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3376-02        | PR132-DP01-20251016        | 2.54               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3376-03        | PR132-COMP2-20251016       | 2.53               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3376-04        | PR132-S12-047072-20251016  | 2.55               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3376-05        | PR132-S12-020047-20251016  | 2.55               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3383-01        | OR-03-101725               | 2.52               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3397-01        | TP-7-WC                    | 2.52               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3399-01        | COMP-ROLLOFF               | 2.55               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3402-01        | 41-LA                      | 2.52               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3402-04        | 41-RA                      | 2.53               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3402-07        | 41-LB                      | 2.51               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3402-10        | 41-RB                      | 2.54               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3403-01        | MH-18                      | 2.53               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3403-01DUP     | MH-18DUP                   | 2.53               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3403-01MSPre   | MH-18MSPRE                 | 2.55               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3403-01MS2Ins  | MH-18MS2INS                | 2.53               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3403-01MS3Post | MH-18MS3POST               | 2.56               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |
| Q3412-01        | TP-6                       | 2.58               | 100            | N/A | N/A     | N/A       | N/A             | N/A     | N/A      |

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : hex-10-20      WorkList ID : 192583      Department : Distillation      Date : 10-21-2025 17:16:35

| Sample   | Customer Sample            | Matrix | Test                | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|----------------------------|--------|---------------------|--------------|----------|-----------------------------|--------------|--------|
| Q3375-01 | PR132-S02-074099-20251016  | Solid  | Hexavalent Chromium | Cool 4 deg C | AECO02   | D31                         | 10/16/2025   | 7196A  |
| Q3375-02 | PR132-S04-000013-20251016  | Solid  | Hexavalent Chromium | Cool 4 deg C | AECO02   | D31                         | 10/16/2025   | 7196A  |
| Q3375-03 | PR132-S05-000057-20251016  | Solid  | Hexavalent Chromium | Cool 4 deg C | AECO02   | D31                         | 10/16/2025   | 7196A  |
| Q3375-04 | PR132-S02-010074-20251016  | Solid  | Hexavalent Chromium | Cool 4 deg C | AECO02   | D31                         | 10/16/2025   | 7196A  |
| Q3375-05 | PR132-DP02-074099-20251016 | Solid  | Hexavalent Chromium | Cool 4 deg C | AECO02   | D31                         | 10/16/2025   | 7196A  |
| Q3376-01 | PR132-S05-057082-20251016  | Solid  | Hexavalent Chromium | Cool 4 deg C | AECO02   | D31                         | 10/16/2025   | 7196A  |
| Q3376-02 | PR132-DP01-20251016        | Solid  | Hexavalent Chromium | Cool 4 deg C | AECO02   | D31                         | 10/16/2025   | 7196A  |
| Q3376-03 | PR132-COMP2-20251016       | Solid  | Hexavalent Chromium | Cool 4 deg C | AECO02   | D31                         | 10/16/2025   | 7196A  |
| Q3376-04 | PR132-S12-047072-20251016  | Solid  | Hexavalent Chromium | Cool 4 deg C | AECO02   | D31                         | 10/16/2025   | 7196A  |
| Q3376-05 | PR132-S12-020047-20251016  | Solid  | Hexavalent Chromium | Cool 4 deg C | AECO02   | D31                         | 10/16/2025   | 7196A  |
| Q3399-01 | COMP-ROLLOFF               | Solid  | Hexavalent Chromium | Cool 4 deg C | ICES02   | D41                         | 10/20/2025   | 7196A  |
| Q3397-01 | TP-7-WC                    | Solid  | Hexavalent Chromium | Cool 4 deg C | PSEG03   | D31                         | 10/18/2025   | 7196A  |
| Q3402-01 | 41-LA                      | Solid  | Hexavalent Chromium | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 7196A  |
| Q3402-04 | 41-RA                      | Solid  | Hexavalent Chromium | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 7196A  |
| Q3402-07 | 41-LB                      | Solid  | Hexavalent Chromium | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 7196A  |
| Q3402-10 | 41-RB                      | Solid  | Hexavalent Chromium | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 7196A  |
| Q3403-01 | MH-18                      | Solid  | Hexavalent Chromium | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | 7196A  |
| Q3412-01 | TP-6                       | Solid  | Hexavalent Chromium | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | 7196A  |

Date/Time 10/21/2025 11:00  
 Raw Sample Received by: R. H. (w/c)  
 Raw Sample Relinquished by: R. H. (w/c)

Date/Time 10/21/2025 14:10  
 Raw Sample Received by: R. H. (w/c)  
 Raw Sample Relinquished by: R. H. (w/c)

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : hex-1021      WorkList ID : 192605      Department : Distillation      Date : 10-21-2025 13:19:48

| Sample   | Customer Sample | Matrix | Test                | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|-----------------|--------|---------------------|--------------|----------|-----------------------------|--------------|--------|
| Q3383-01 | OR-03-101725    | Solid  | Hexavalent Chromium | Cool 4 deg C | PSEG05   | D41                         | 10/17/2025   | 7196A  |

Date/Time 10/21/2025 13:25  
 Raw Sample Received by: RMW  
 Raw Sample Relinquished by: scw

Date/Time 10/21/2025 14:10  
 Raw Sample Received by: scw  
 Raw Sample Relinquished by: RMW

SOP ID : M9030B-Sulfide-13

SDG No : N/A

Start Digest Date: 10/22/2025 Time : 09:20 Temp : N/A

Matrix : SOIL

End Digest Date: 10/22/2025 Time : 10:20 Temp : N/A

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#2

Digestion tube ID : M5595

Block Thermometer ID : N/A

Block ID : WC-DIST-BLOCK-1

Filter paper ID : N/A

Prep Technician Signature: 12

Weigh By : IZ

pH Meter ID : N/A

Supervisor Signature:

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

| Chemical Used     | ML/SAMPLE USED | Lot Number |
|-------------------|----------------|------------|
| 0.5M ZINC ACETATE | 5.0ML          | WP114311   |
| FORMALDEHYDE      | 2.0ML          | W3220      |
| N/A               | N/A            | N/A        |
| N/A               | N/A            | N/A        |
| N/A               | N/A            | N/A        |
| N/A               | N/A            | N/A        |
| N/A               | N/A            | N/A        |
| N/A               | N/A            | N/A        |
| N/A               | N/A            | N/A        |
| N/A               | N/A            | N/A        |

## Extraction Conformance/Non-Conformance Comments:

N/A

| 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 |
|---------------|------------------|--------------------|----------------|-----|---------|-----------|------------------|---------|----------|
| PB170195BL    | PBS195           | 5.00               | 50             | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q3392-04DUP   | MH-20DUP         | 5.06               | 50             | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q3392-04      | MH-20            | 5.06               | 50             | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q3392-08      | MH-19            | 5.04               | 50             | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q3399-02      | COMP-ROLLOFF     | 5.03               | 50             | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q3404-02      | MOO-25-0285-0288 | 5.07               | 50             | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q3404-06      | MOO-25-0292      | 5.01               | 50             | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q3406-02      | ARS20-0037       | 5.03               | 50             | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q3412-04      | TP-6             | 5.06               | 50             | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q3427-04      | TP-8             | 5.03               | 50             | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |

Instrument ID: SPECTROPHOTOMETER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137601**

|                  |                                     |              |                        |
|------------------|-------------------------------------|--------------|------------------------|
| Review By        | rubina                              | Review On    | 10/22/2025 12:46:11 PM |
| Supervise By     | Iwona                               | Supervise On | 10/22/2025 1:30:09 PM  |
| SubDirectory     | LB137601                            | 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     | WP115235,WP112831,WP112830,WP114310 |              |                        |

| Sr# | SampleId   | ClientID           | QcType | Date           | Comment | Operator | Status |
|-----|------------|--------------------|--------|----------------|---------|----------|--------|
| 1   | CAL1       | CAL1               | CAL    | 10/21/25 15:45 |         | rubina   | OK     |
| 2   | CAL2       | CAL2               | CAL    | 10/21/25 15:45 |         | rubina   | OK     |
| 3   | CAL3       | CAL3               | CAL    | 10/21/25 15:46 |         | rubina   | OK     |
| 4   | CAL4       | CAL4               | CAL    | 10/21/25 15:46 |         | rubina   | OK     |
| 5   | CAL5       | CAL5               | CAL    | 10/21/25 15:47 |         | rubina   | OK     |
| 6   | CAL6       | CAL6               | CAL    | 10/21/25 15:47 |         | rubina   | OK     |
| 7   | CAL7       | CAL7               | CAL    | 10/21/25 15:48 |         | rubina   | OK     |
| 8   | ICV        | ICV                | ICV    | 10/21/25 15:48 |         | rubina   | OK     |
| 9   | ICB        | ICB                | ICB    | 10/21/25 15:49 |         | rubina   | OK     |
| 10  | CCV1       | CCV1               | CCV    | 10/21/25 15:49 |         | rubina   | OK     |
| 11  | CCB1       | CCB1               | CCB    | 10/21/25 15:50 |         | rubina   | OK     |
| 12  | RL Check   | RL Check           | RL     | 10/21/25 15:50 |         | rubina   | OK     |
| 13  | PB170189BL | PB170189BL         | MB     | 10/21/25 15:51 |         | rubina   | OK     |
| 14  | PB170189BS | PB170189BS         | LCS    | 10/21/25 15:51 |         | rubina   | OK     |
| 15  | Q3375-01   | PR132-S02-074099-2 | SAM    | 10/21/25 15:52 |         | rubina   | OK     |
| 16  | Q3375-02   | PR132-S04-000013-2 | SAM    | 10/21/25 15:52 |         | rubina   | OK     |
| 17  | Q3375-03   | PR132-S05-000057-2 | SAM    | 10/21/25 15:53 |         | rubina   | OK     |
| 18  | Q3375-04   | PR132-S02-010074-2 | SAM    | 10/21/25 15:53 |         | rubina   | OK     |

Instrument ID: SPECTROPHOTOMETER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137601**

|                  |                                     |              |                        |
|------------------|-------------------------------------|--------------|------------------------|
| Review By        | rubina                              | Review On    | 10/22/2025 12:46:11 PM |
| Supervise By     | Iwona                               | Supervise On | 10/22/2025 1:30:09 PM  |
| SubDirectory     | LB137601                            | 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     | WP115235,WP112831,WP112830,WP114310 |              |                        |

|    |               |                    |     |                |  |        |    |
|----|---------------|--------------------|-----|----------------|--|--------|----|
| 19 | Q3375-05      | PR132-DP02-202510  | SAM | 10/21/25 15:54 |  | rubina | OK |
| 20 | Q3376-01      | PR132-S05-057082-2 | SAM | 10/21/25 15:54 |  | rubina | OK |
| 21 | Q3376-02      | PR132-DP01-202510  | SAM | 10/21/25 15:55 |  | rubina | OK |
| 22 | Q3376-03      | PR132-COMP2-2025   | SAM | 10/21/25 15:55 |  | rubina | OK |
| 23 | CCV2          | CCV2               | CCV | 10/21/25 15:56 |  | rubina | OK |
| 24 | CCB2          | CCB2               | CCB | 10/21/25 15:56 |  | rubina | OK |
| 25 | Q3376-04      | PR132-S12-047072-2 | SAM | 10/21/25 15:57 |  | rubina | OK |
| 26 | Q3376-05      | PR132-S12-020047-2 | SAM | 10/21/25 15:57 |  | rubina | OK |
| 27 | Q3383-01      | OR-03-101725       | SAM | 10/21/25 15:58 |  | rubina | OK |
| 28 | Q3397-01      | TP-7-WC            | SAM | 10/21/25 15:58 |  | rubina | OK |
| 29 | Q3399-01      | COMP-ROLLOFF       | SAM | 10/21/25 15:59 |  | rubina | OK |
| 30 | Q3402-01      | 41-LA              | SAM | 10/21/25 15:59 |  | rubina | OK |
| 31 | Q3402-04      | 41-RA              | SAM | 10/21/25 16:00 |  | rubina | OK |
| 32 | Q3402-07      | 41-LB              | SAM | 10/21/25 16:00 |  | rubina | OK |
| 33 | Q3402-10      | 41-RB              | SAM | 10/21/25 16:01 |  | rubina | OK |
| 34 | Q3403-01      | MH-18              | SAM | 10/21/25 16:01 |  | rubina | OK |
| 35 | CCV3          | CCV3               | CCV | 10/21/25 16:02 |  | rubina | OK |
| 36 | CCB3          | CCB3               | CCB | 10/21/25 16:02 |  | rubina | OK |
| 37 | Q3403-01DUP   | MH-18DUP           | DUP | 10/21/25 16:03 |  | rubina | OK |
| 38 | Q3403-01MSPre | MH-18MS            | MS  | 10/21/25 16:03 |  | rubina | OK |

Instrument ID: SPECTROPHOTOMETER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137601**

|                  |                                     |              |                        |
|------------------|-------------------------------------|--------------|------------------------|
| Review By        | rubina                              | Review On    | 10/22/2025 12:46:11 PM |
| Supervise By     | Iwona                               | Supervise On | 10/22/2025 1:30:09 PM  |
| SubDirectory     | LB137601                            | 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     | WP115235,WP112831,WP112830,WP114310 |              |                        |

|    |                 |         |     |                |  |        |    |
|----|-----------------|---------|-----|----------------|--|--------|----|
| 39 | Q3403-01MS2Ins  | MH-18MS | MS  | 10/21/25 16:04 |  | rubina | OK |
| 40 | Q3403-01MS3Post | MH-18MS | MS  | 10/21/25 16:04 |  | rubina | OK |
| 41 | Q3412-01        | TP-6    | SAM | 10/21/25 16:05 |  | rubina | OK |
| 42 | CCV4            | CCV4    | CCV | 10/21/25 16:05 |  | rubina | OK |
| 43 | CCB4            | CCB4    | CCB | 10/21/25 16:06 |  | rubina | OK |

Instrument ID: KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137602**

|                  |                                                                |              |                       |
|------------------|----------------------------------------------------------------|--------------|-----------------------|
| Review By        | rubina                                                         | Review On    | 10/21/2025 4:39:58 PM |
| Supervise By     | Iwona                                                          | Supervise On | 10/21/2025 4:40:24 PM |
| SubDirectory     | LB137602                                                       | Test         | Reactive Cyanide      |
| <b>STD. NAME</b> | <b>STD REF.#</b>                                               |              |                       |
| ICAL Standard    | WP115266,WP115267,WP115268,WP115269,WP115270,WP115271,WP115272 |              |                       |
| ICV Standard     | WP115273                                                       |              |                       |
| CCV Standard     | WP115267                                                       |              |                       |
| ICSA Standard    | N/A                                                            |              |                       |
| CRI Standard     | N/A                                                            |              |                       |
| LCS Standard     | N/A                                                            |              |                       |
| Chk Standard     | WP115157,WP114324,WP115274                                     |              |                       |

| Sr# | SampleId    | ClientID   | QcType | Date           | Comment | Operator | Status |
|-----|-------------|------------|--------|----------------|---------|----------|--------|
| 1   | 0.0PPBCN    | 0.0PPBCN   | CAL1   | 10/21/25 10:18 |         | rubina   | OK     |
| 2   | 5.0PPBCN    | 5.0PPBCN   | CAL2   | 10/21/25 10:18 |         | rubina   | OK     |
| 3   | 10PPBCN     | 10PPBCN    | CAL3   | 10/21/25 10:18 |         | rubina   | OK     |
| 4   | 50PPBCN     | 50PPBCN    | CAL4   | 10/21/25 10:18 |         | rubina   | OK     |
| 5   | 100PPBCN    | 100PPBCN   | CAL5   | 10/21/25 10:18 |         | rubina   | OK     |
| 6   | 250PPBCN    | 250PPBCN   | CAL6   | 10/21/25 10:18 |         | rubina   | OK     |
| 7   | 500PPBCN    | 500PPBCN   | CAL7   | 10/21/25 10:18 |         | rubina   | OK     |
| 8   | ICV1        | ICV1       | ICV    | 10/21/25 12:16 |         | rubina   | OK     |
| 9   | ICB1        | ICB1       | ICB    | 10/21/25 12:16 |         | rubina   | OK     |
| 10  | CCV1        | CCV1       | CCV    | 10/21/25 12:16 |         | rubina   | OK     |
| 11  | CCB1        | CCB1       | CCB    | 10/21/25 12:16 |         | rubina   | OK     |
| 12  | PB170152BL  | PB170152BL | MB     | 10/21/25 12:16 |         | rubina   | OK     |
| 13  | Q3369-04    | MH-22      | SAM    | 10/21/25 12:24 |         | rubina   | OK     |
| 14  | Q3369-04DUP | MH-22DUP   | DUP    | 10/21/25 12:24 |         | rubina   | OK     |
| 15  | Q3369-08    | MH-21      | SAM    | 10/21/25 12:24 |         | rubina   | OK     |
| 16  | Q3374-04    | TP-4-WC    | SAM    | 10/21/25 12:24 |         | rubina   | OK     |
| 17  | Q3374-08    | TP-5-WC    | SAM    | 10/21/25 12:24 |         | rubina   | OK     |
| 18  | Q3381-02    | VNJ-222    | SAM    | 10/21/25 12:24 |         | rubina   | OK     |

Instrument ID: KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137602**

|                  |                                                                |              |                       |
|------------------|----------------------------------------------------------------|--------------|-----------------------|
| Review By        | rubina                                                         | Review On    | 10/21/2025 4:39:58 PM |
| Supervise By     | Iwona                                                          | Supervise On | 10/21/2025 4:40:24 PM |
| SubDirectory     | LB137602                                                       | Test         | Reactive Cyanide      |
| <b>STD. NAME</b> | <b>STD REF.#</b>                                               |              |                       |
| ICAL Standard    | WP115266,WP115267,WP115268,WP115269,WP115270,WP115271,WP115272 |              |                       |
| ICV Standard     | WP115273                                                       |              |                       |
| CCV Standard     | WP115267                                                       |              |                       |
| ICSA Standard    | N/A                                                            |              |                       |
| CRI Standard     | N/A                                                            |              |                       |
| LCS Standard     | N/A                                                            |              |                       |
| Chk Standard     | WP115157,WP114324,WP115274                                     |              |                       |

|    |             |                 |     |                |  |        |    |
|----|-------------|-----------------|-----|----------------|--|--------|----|
| 19 | Q3381-04    | VNJ-245         | SAM | 10/21/25 12:24 |  | rubina | OK |
| 20 | Q3381-06    | RBR200059       | SAM | 10/21/25 12:24 |  | rubina | OK |
| 21 | Q3381-08    | VNJ-255         | SAM | 10/21/25 12:24 |  | rubina | OK |
| 22 | CCV2        | CCV2            | CCV | 10/21/25 12:32 |  | rubina | OK |
| 23 | CCB2        | CCB2            | CCB | 10/21/25 12:32 |  | rubina | OK |
| 24 | Q3388-02    | 461             | SAM | 10/21/25 12:32 |  | rubina | OK |
| 25 | Q3392-04    | MH-20           | SAM | 10/21/25 12:32 |  | rubina | OK |
| 26 | Q3392-08    | MH-19           | SAM | 10/21/25 12:32 |  | rubina | OK |
| 27 | Q3390-02    | 4174            | SAM | 10/21/25 12:32 |  | rubina | OK |
| 28 | PB170174BL  | PB170174BL      | MB  | 10/21/25 12:32 |  | rubina | OK |
| 29 | Q3368-07    | PRESS-SLUDGE    | SAM | 10/21/25 12:39 |  | rubina | OK |
| 30 | Q3397-04    | TP-7-WC         | SAM | 10/21/25 12:39 |  | rubina | OK |
| 31 | Q3368-06    | OUTSIDE-DUMPSTE | SAM | 10/21/25 12:39 |  | rubina | OK |
| 32 | Q3368-06DUP | OUTSIDE-DUMPSTE | DUP | 10/21/25 12:39 |  | rubina | OK |
| 33 | Q3399-02    | COMP-ROLLOFF    | SAM | 10/21/25 12:39 |  | rubina | OK |
| 34 | CCV3        | CCV3            | CCV | 10/21/25 12:39 |  | rubina | OK |
| 35 | CCB3        | CCB3            | CCB | 10/21/25 12:47 |  | rubina | OK |
| 36 | Q3402-03    | 41-LA           | SAM | 10/21/25 12:47 |  | rubina | OK |
| 37 | Q3402-06    | 41-RA           | SAM | 10/21/25 12:47 |  | rubina | OK |
| 38 | Q3402-09    | 41-LB           | SAM | 10/21/25 12:47 |  | rubina | OK |

Instrument ID: KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137602**

|                  |                                                                |              |                       |
|------------------|----------------------------------------------------------------|--------------|-----------------------|
| Review By        | rubina                                                         | Review On    | 10/21/2025 4:39:58 PM |
| Supervise By     | Iwona                                                          | Supervise On | 10/21/2025 4:40:24 PM |
| SubDirectory     | LB137602                                                       | Test         | Reactive Cyanide      |
| <b>STD. NAME</b> | <b>STD REF.#</b>                                               |              |                       |
| ICAL Standard    | WP115266,WP115267,WP115268,WP115269,WP115270,WP115271,WP115272 |              |                       |
| ICV Standard     | WP115273                                                       |              |                       |
| CCV Standard     | WP115267                                                       |              |                       |
| ICSA Standard    | N/A                                                            |              |                       |
| CRI Standard     | N/A                                                            |              |                       |
| LCS Standard     | N/A                                                            |              |                       |
| Chk Standard     | WP115157,WP114324,WP115274                                     |              |                       |

|    |          |                  |     |                |  |        |    |
|----|----------|------------------|-----|----------------|--|--------|----|
| 39 | Q3402-12 | 41-RB            | SAM | 10/21/25 12:47 |  | rubina | OK |
| 40 | Q3403-04 | MH-18            | SAM | 10/21/25 12:47 |  | rubina | OK |
| 41 | Q3404-02 | MOO-25-0285-0288 | SAM | 10/21/25 12:47 |  | rubina | OK |
| 42 | Q3404-06 | MOO-25-0292      | SAM | 10/21/25 12:47 |  | rubina | OK |
| 43 | Q3406-02 | ARS20-0037       | SAM | 10/21/25 12:53 |  | rubina | OK |
| 44 | Q3412-04 | TP-6             | SAM | 10/21/25 12:53 |  | rubina | OK |
| 45 | CCV4     | CCV4             | CCV | 10/21/25 12:53 |  | rubina | OK |
| 46 | CCB4     | CCB4             | CCB | 10/21/25 12:53 |  | rubina | OK |

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

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137603**

|                  |                                     |              |                        |
|------------------|-------------------------------------|--------------|------------------------|
| Review By        | jignesh                             | Review On    | 10/22/2025 9:56:55 AM  |
| Supervise By     | Iwona                               | Supervise On | 10/22/2025 10:24:29 AM |
| SubDirectory     | LB137603                            | Test         | Corrosivity            |
| <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    | 10/21/25 12:30 |         | Jignesh  | OK     |
| 2   | CAL2        | CAL2             | CAL    | 10/21/25 12:31 |         | Jignesh  | OK     |
| 3   | CAL3        | CAL3             | CAL    | 10/21/25 12:33 |         | Jignesh  | OK     |
| 4   | ICV         | ICV              | ICV    | 10/21/25 12:35 |         | Jignesh  | OK     |
| 5   | CCV1        | CCV1             | CCV    | 10/21/25 12:36 |         | Jignesh  | OK     |
| 6   | Q3368-06    | OUTSIDE-DUMPSTE  | SAM    | 10/21/25 12:44 |         | Jignesh  | OK     |
| 7   | Q3368-06DUP | OUTSIDE-DUMPSTE  | DUP    | 10/21/25 12:46 |         | Jignesh  | OK     |
| 8   | Q3368-07    | PRESS-SLUDGE     | SAM    | 10/21/25 12:49 |         | Jignesh  | OK     |
| 9   | Q3397-04    | TP-7-WC          | SAM    | 10/21/25 12:50 |         | Jignesh  | OK     |
| 10  | Q3399-02    | COMP-ROLLOFF     | SAM    | 10/21/25 13:00 |         | Jignesh  | OK     |
| 11  | Q3402-03    | 41-LA            | SAM    | 10/21/25 13:02 |         | Jignesh  | OK     |
| 12  | Q3402-06    | 41-RA            | SAM    | 10/21/25 13:05 |         | Jignesh  | OK     |
| 13  | Q3402-09    | 41-LB            | SAM    | 10/21/25 13:10 |         | Jignesh  | OK     |
| 14  | Q3402-12    | 41-RB            | SAM    | 10/21/25 13:15 |         | Jignesh  | OK     |
| 15  | Q3403-04    | MH-18            | SAM    | 10/21/25 13:20 |         | Jignesh  | OK     |
| 16  | CCV2        | CCV2             | CCV    | 10/21/25 13:25 |         | Jignesh  | OK     |
| 17  | Q3404-02    | MOO-25-0285-0288 | SAM    | 10/21/25 13:30 |         | Jignesh  | OK     |
| 18  | Q3404-06    | MOO-25-0292      | SAM    | 10/21/25 13:35 |         | Jignesh  | OK     |

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

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137603**

|              |          |              |                        |
|--------------|----------|--------------|------------------------|
| Review By    | jignesh  | Review On    | 10/22/2025 9:56:55 AM  |
| Supervise By | Iwona    | Supervise On | 10/22/2025 10:24:29 AM |
| SubDirectory | LB137603 | Test         | Corrosivity            |

| STD. NAME     | STD REF.#                           |
|---------------|-------------------------------------|
| ICAL Standard | N/A                                 |
| ICV Standard  | N/A                                 |
| CCV Standard  | N/A                                 |
| ICSA Standard | N/A                                 |
| CRI Standard  | N/A                                 |
| LCS Standard  | N/A                                 |
| Chk Standard  | W3178,W3093,W3191,W3217,W3161,W3200 |

|    |          |            |     |                |  |         |    |
|----|----------|------------|-----|----------------|--|---------|----|
| 19 | Q3406-02 | ARS20-0037 | SAM | 10/21/25 13:44 |  | Jignesh | OK |
| 20 | Q3412-04 | TP-6       | SAM | 10/21/25 13:50 |  | Jignesh | OK |
| 21 | CCV3     | CCV3       | CCV | 10/21/25 14:00 |  | Jignesh | OK |

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

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137607**

|                  |                                     |              |                        |
|------------------|-------------------------------------|--------------|------------------------|
| Review By        | jignesh                             | Review On    | 10/22/2025 10:05:14 AM |
| Supervise By     | Iwona                               | Supervise On | 10/22/2025 10:23:57 AM |
| SubDirectory     | LB137607                            | 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    | 10/22/25 09:47 |         | Jignesh  | OK     |
| 2   | CAL2        | CAL2            | CAL    | 10/22/25 09:48 |         | Jignesh  | OK     |
| 3   | CAL3        | CAL3            | CAL    | 10/22/25 09:49 |         | Jignesh  | OK     |
| 4   | ICV         | ICV             | ICV    | 10/22/25 09:50 |         | Jignesh  | OK     |
| 5   | CCV1        | CCV1            | CCV    | 10/22/25 10:00 |         | Jignesh  | OK     |
| 6   | Q3399-01    | COMP-ROLLOFF    | SAM    | 10/22/25 10:10 |         | Jignesh  | OK     |
| 7   | Q3399-01DUP | COMP-ROLLOFFDUP | DUP    | 10/22/25 10:11 |         | Jignesh  | OK     |
| 8   | CCV2        | CCV2            | CCV    | 10/22/25 10:14 |         | Jignesh  | OK     |

**Instrument ID:** FILTER/GRAVIMETRIC

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137608**

|                  |                  |              |                       |
|------------------|------------------|--------------|-----------------------|
| Review By        | Eman             | Review On    | 10/22/2025 4:52:26 PM |
| Supervise By     | Iwona            | Supervise On | 10/22/2025 4:53:31 PM |
| SubDirectory     | LB137608         | Test         | Paint Filter          |
| <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   | Q3399-01    | COMP-ROLLOFF    | SAM    | 10/22/25 08:40 |         | Eman     | OK     |
| 2   | Q3399-01DUP | COMP-ROLLOFFDUP | DUP    | 10/22/25 08:47 |         | Eman     | OK     |
| 3   | Q3412-01    | TP-6            | SAM    | 10/22/25 08:54 |         | Eman     | OK     |
| 4   | Q3416-01    | NB-08-10212025  | SAM    | 10/22/25 09:02 |         | Eman     | OK     |

Instrument ID: FLAME

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137609**

|                  |                  |              |                       |
|------------------|------------------|--------------|-----------------------|
| Review By        | Eman             | Review On    | 10/22/2025 4:51:35 PM |
| Supervise By     | Iwona            | Supervise On | 10/22/2025 4:53:19 PM |
| SubDirectory     | LB137609         | 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   | Q3399-02    | COMP-ROLLOFF     | SAM    | 10/22/25 09:15 |         | Eman     | OK     |
| 2   | Q3399-02DUP | COMP-ROLLOFFDUP  | DUP    | 10/22/25 09:22 |         | Eman     | OK     |
| 3   | Q3404-02    | MOO-25-0285-0288 | SAM    | 10/22/25 09:29 |         | Eman     | OK     |
| 4   | Q3404-06    | MOO-25-0292      | SAM    | 10/22/25 09:37 |         | Eman     | OK     |
| 5   | Q3406-02    | ARS20-0037       | SAM    | 10/22/25 09:45 |         | Eman     | OK     |
| 6   | Q3412-01    | TP-6             | SAM    | 10/22/25 09:52 |         | Eman     | OK     |
| 7   | Q3412-04    | TP-6             | SAM    | 10/22/25 10:00 |         | Eman     | OK     |
| 8   | Q3414-01    | SB-1             | SAM    | 10/22/25 10:08 |         | Eman     | OK     |
| 9   | Q3414-02    | SB-2             | SAM    | 10/22/25 10:15 |         | Eman     | OK     |
| 10  | Q3414-03    | SB-3             | SAM    | 10/22/25 10:22 |         | Eman     | OK     |
| 11  | Q3414-04    | SB-4             | SAM    | 10/22/25 10:30 |         | Eman     | OK     |
| 12  | Q3414-05    | SB-5             | SAM    | 10/22/25 10:37 |         | Eman     | OK     |
| 13  | Q3414-06    | SB-6             | SAM    | 10/22/25 10:45 |         | Eman     | OK     |
| 14  | Q3414-07    | SB-7             | SAM    | 10/22/25 10:52 |         | Eman     | OK     |
| 15  | Q3414-08    | SB-8             | SAM    | 10/22/25 11:00 |         | Eman     | OK     |
| 16  | Q3414-09    | SB-9             | SAM    | 10/22/25 11:07 |         | Eman     | OK     |
| 17  | Q3414-10    | SB-10            | SAM    | 10/22/25 11:15 |         | Eman     | OK     |
| 18  | Q3414-11    | SB-11            | SAM    | 10/22/25 11:22 |         | Eman     | OK     |

Instrument ID: FLAME

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137609**

|              |          |              |                       |
|--------------|----------|--------------|-----------------------|
| Review By    | Eman     | Review On    | 10/22/2025 4:51:35 PM |
| Supervise By | Iwona    | Supervise On | 10/22/2025 4:53:19 PM |
| SubDirectory | LB137609 | Test         | Ignitability          |

| STD. NAME     | STD REF.# |
|---------------|-----------|
| ICAL Standard | N/A       |
| ICV Standard  | N/A       |
| CCV Standard  | N/A       |
| ICSA Standard | N/A       |
| CRI Standard  | N/A       |
| LCS Standard  | N/A       |
| Chk Standard  | N/A       |

|    |          |       |     |                |  |      |    |
|----|----------|-------|-----|----------------|--|------|----|
| 19 | Q3414-12 | SB-12 | SAM | 10/22/25 11:30 |  | Eman | OK |
| 20 | Q3414-13 | SB-13 | SAM | 10/22/25 11:37 |  | Eman | OK |

**Instrument ID:** TITRAMETRIC

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137616**

|                  |                   |              |                       |
|------------------|-------------------|--------------|-----------------------|
| Review By        | Iwona             | Review On    | 10/22/2025 3:49:24 PM |
| Supervise By     | jignesh           | Supervise On | 10/22/2025 3:53:29 PM |
| SubDirectory     | LB137616          | Test         | Reactive Sulfide      |
| <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     | W3248,W3213,W3149 |              |                       |

| Sr# | SampleId    | ClientID         | QcType | Date           | Comment | Operator | Status |
|-----|-------------|------------------|--------|----------------|---------|----------|--------|
| 1   | PB170195BL  | PB170195BL       | MB     | 10/22/25 12:50 |         | Iwona    | OK     |
| 2   | Q3392-04    | MH-20            | SAM    | 10/22/25 12:53 |         | Iwona    | OK     |
| 3   | Q3392-04DUP | MH-20DUP         | DUP    | 10/22/25 12:57 |         | Iwona    | OK     |
| 4   | Q3392-08    | MH-19            | SAM    | 10/22/25 13:00 |         | Iwona    | OK     |
| 5   | Q3399-02    | COMP-ROLLOFF     | SAM    | 10/22/25 13:03 |         | Iwona    | OK     |
| 6   | Q3404-02    | MOO-25-0285-0288 | SAM    | 10/22/25 13:06 |         | Iwona    | OK     |
| 7   | Q3404-06    | MOO-25-0292      | SAM    | 10/22/25 13:10 |         | Iwona    | OK     |
| 8   | Q3406-02    | ARS20-0037       | SAM    | 10/22/25 13:13 |         | Iwona    | OK     |
| 9   | Q3412-04    | TP-6             | SAM    | 10/22/25 13:16 |         | Iwona    | OK     |
| 10  | Q3427-04    | TP-8             | SAM    | 10/22/25 13:20 |         | Iwona    | OK     |
| 11  | PB169848BL  | PB169848BL       | MB     | 10/22/25 13:23 |         | Iwona    | OK     |
| 12  | Q3188-01    | 4135             | SAM    | 10/22/25 13:26 |         | Iwona    | OK     |

**Instrument ID:** GRAVIMETRIC

**Daily Analysis Runlog For Sequence/QC Batch ID # LB137631**

|                  |                  |              |                        |
|------------------|------------------|--------------|------------------------|
| Review By        | rubina           | Review On    | 10/27/2025 11:56:52 AM |
| Supervise By     | Iwona            | Supervise On | 10/27/2025 11:58:21 AM |
| SubDirectory     | LB137631         | Test         | Trivalent 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     | N/A              |              |                        |

| Sr# | SampleId | ClientID     | QcType | Date           | Comment | Operator | Status |
|-----|----------|--------------|--------|----------------|---------|----------|--------|
| 1   | Q3399-01 | COMP-ROLLOFF | SAM    | 10/21/25 19:01 |         | Ayul     | OK     |

## Prep Standard - Chemical Standard Summary

**Order ID :** Q3399

**Test :** Corrosivity,Hexavalent Chromium,Ignitability,Paint Filter,Percent Solids,pH,Reactive Cyanide,Reactive Sulfide,Trivalent Chromium

**Prepbatch ID :** PB170174,PB170189,PB170195,

**Sequence ID/Qc Batch ID:** LB137601,LB137602,LB137603,LB137607,LB137608,LB137609,LB137616,LB137631,

**Standard ID :**  
WP112830,WP112831,WP112903,WP113836,WP113838,WP113880,WP113881,WP114310,WP114311,WP114324,WP114900,WP115157,WP115235,WP115265,WP115266,WP115267,WP115268,WP115269,WP115270,WP115271,WP115272,WP115273,WP115274,

**Chemical ID :**  
E3979,M6041,M6151,M6158,M6162,W2202,W2651,W2652,W2668,W2926,W2979,W3019,W3093,W3112,W3113,W3139,W3149,W3152,W3161,W3163,W3168,W3178,W3191,W3200,W3203,W3206,W3213,W3214,W3217,W3220,W3224,W3248,

## 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> |
|------------------|---------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1836             | HNO3 Hex-Chrome, 5M | <a href="#">WP112830</a> | 04/25/2025       | 10/25/2025             | Rubina Mughal      | None           | None             | Iwona Zarych         |
|                  |                     |                          |                  |                        |                    |                |                  | 04/25/2025           |

**FROM** 320.00000ml of M6158 + 680.00000ml of W3112 = Final Quantity: 1000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>      | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 126              | 5N sulfuric acid | <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

## 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         |
| <b>FROM</b> 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> |
|------------------------------------------------------------------------------------|--------------------------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------|
| 11                                                                                 | Sodium hydroxide absorbing solution 0.25 N | <a href="#">WP113836</a> | 07/08/2025       | 12/31/2025             | Rubina Mughal      | WETCHEM_SCALE_8 (WC SC-7) | None             | Iwona Zarych         |
| <b>FROM</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>       |
|---------------------------------------------------------------------------------------|----------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------------|----------------------------|
| 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<br>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_SCALE_5 (WC SC-5) | None             | Iwona Zarych<br>07/10/2025 |
| <b>FROM</b> 0.14140gram of W2651 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml |                                       |                          |                  |                        |                    |                           |                  |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                       | <u>NAME</u>                           | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u>       |
|----------------------------------------------------------------------------------------|---------------------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------------|
| 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<br>07/10/2025 |
| <b>FROM</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>         |
|-------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|------------------------------|
| 3354                                                                                                        | Hexchrome Cleaning Solution | <a href="#">WP114310</a> | 08/19/2025       | 11/27/2025             | Rubina Mughal      | None           | None             | Jignesh Parikh<br>08/19/2025 |
| <b>FROM</b> 182.00000ml of M6151 + 727.00000ml of W3112 + 91.00000ml of M6162 = 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>         |
|-----------------------------------------------------------------------------------------------------------|-------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------------|------------------------------|
| 160                                                                                                       | 0.5M ZINC ACETATE | <a href="#">WP114311</a> | 08/19/2025       | 02/17/2026             | Rubina Mughal      | WETCHEM_SCALE_8 (WC SC-7) | WETCHEM_FIPETTE_3 (WC) | Jignesh Parikh<br>08/19/2025 |
| <b>FROM</b> 0.88900L of W3112 + 1.00000ml of M6151 + 110.00000gram of W2926 = 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>         |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|------------------------------|
| 607                                                                                                                               | PYRIDINE-BARBITURIC ACID | <a href="#">WP114324</a> | 08/19/2025       | 02/17/2026             | Rubina Mughal      | WETCHEM_SCALE_5 (WC SC-5) | Glass Pipette-A  | Jignesh Parikh<br>08/19/2025 |
| <b>FROM</b> 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>       |
|--------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------------|
| 148                                                                                                          | hexchrome digestion fluid | <a href="#">WP114900</a> | 09/25/2025       | 10/25/2025             | Rubina Mughal      | WETCHEM_SCALE_8 (WC SC-7) | None             | Iwona Zarych<br>09/26/2025 |
| <b>FROM</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>       |
|-----------------------------------------------------------------------------------------|-------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------------|
| 539                                                                                     | CN BUFFER   | <a href="#">WP115157</a> | 10/10/2025       | 12/03/2025             | Rubina Mughal      | WETCHEM_SCALE_8 (WC SC-7) | None             | Iwona Zarych<br>10/14/2025 |
| <b>FROM</b> 138.00000gram of W2668 + 862.00000ml 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>       |
|------------------------------------------------------------------------------------|-----------------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------------|
| 114                                                                                | hexavalent chromium color reagent | <a href="#">WP115235</a> | 10/16/2025       | 10/23/2025             | Rubina Mughal      | WETCHEM_SCALE_5 (WC SC-5) | None             | Iwona Zarych<br>10/16/2025 |
| <b>FROM</b> 0.25000gram of W2979 + 50.00000ml of E3979 = Final Quantity: 50.000 ml |                                   |                          |                  |                        |                    |                           |                  |                            |

| <u>Recipe ID</u>                                                                    | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>       | <u>Supervised By</u>       |
|-------------------------------------------------------------------------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------------|----------------------------|
| 3456                                                                                | Cyanide Intermediate Working Std, 5PPM | <a href="#">WP115265</a> | 10/21/2025       | 10/22/2025             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3 (WC) | Iwona Zarych<br>10/24/2025 |
| <b>FROM</b> 0.25000ml of W3214 + 49.75000ml of WP113836 = Final Quantity: 50.000 ml |                                        |                          |                  |                        |                    |                |                        |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                       | <u>NAME</u>                  | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|----------------------------------------------------------------------------------------|------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 4                                                                                      | Calibration standard 500 ppb | <a href="#">WP115266</a> | 10/21/2025       | 10/22/2025             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br>10/24/2025 |
| <b>FROM</b> 45.00000ml of WP113836 + 5.00000ml of WP115265 = 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="#">WP115267</a> | 10/21/2025       | 10/22/2025             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br>10/24/2025 |
| <b>FROM</b> 2.50000ml of WP115265 + 47.50000ml of WP113836 = Final Quantity: 50.000 ml |                                     |                          |                  |                        |                    |                |                           |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                       | <u>NAME</u>                  | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>           |
|----------------------------------------------------------------------------------------|------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 6                                                                                      | Calibration Standard 100 ppb | <a href="#">WP115268</a> | 10/21/2025       | 10/22/2025             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>10/24/2025 |
| <b>FROM</b> 1.00000ml of WP115265 + 49.00000ml 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>           |
|----------------------------------------------------------------------------------------|-----------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 7                                                                                      | Calibration Standard 50 ppb | <a href="#">WP115269</a> | 10/21/2025       | 10/22/2025             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>10/24/2025 |
| <b>FROM</b> 0.50000ml of WP115265 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml |                             |                          |                  |                        |                    |                |                               |                                |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                       | <u>NAME</u>                 | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|----------------------------------------------------------------------------------------|-----------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 8                                                                                      | Calibration Standard 10 ppb | <a href="#">WP115270</a> | 10/21/2025       | 10/22/2025             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br>10/24/2025 |
| <b>FROM</b> 1.00000ml of WP115266 + 49.00000ml 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>       |
|----------------------------------------------------------------------------------------|----------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 9                                                                                      | Calibration Standard 5 ppb | <a href="#">WP115271</a> | 10/21/2025       | 10/22/2025             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br>10/24/2025 |
| <b>FROM</b> 0.50000ml of WP115266 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml |                            |                          |                  |                        |                    |                |                           |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>              | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|--------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 167              | 0 ppb CN calibration std | <a href="#">WP115272</a> | 10/21/2025       | 10/22/2025             | Rubina Mughal      | None           | None             | Iwona Zarych         |
|                  |                          |                          |                  |                        |                    |                |                  | 10/24/2025           |

**FROM** 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> |
|------------------|----------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------|----------------------|
| 2168             | RCN ICV STD, 100 PPB | <a href="#">WP115273</a> | 10/21/2025       | 10/22/2025             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3 | Iwona Zarych         |
|                  |                      |                          |                  |                        |                    |                | (WC)              | 10/24/2025           |

**FROM** 1.00000ml of WP113838 + 49.00000ml of WP113836 = Final Quantity: 50.000 ml

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                   | <u>NAME</u>                   | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u>   | <u>Supervised By</u>           |
|------------------------------------------------------------------------------------|-------------------------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|--------------------|--------------------------------|
| 1582                                                                               | Chloramine T solution, 0.014M | <a href="#">WP115274</a> | 10/21/2025       | 10/22/2025             | Rubina Mughal      | WETCHEM_S<br>CALE_5 (WC<br>SC-5) | Glass<br>Pipette-A | Iwona Zarych<br><br>10/24/2025 |
| <b>FROM</b> 0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 ml |                               |                          |                  |                        |                    |                                  |                    |                                |

## CHEMICAL RECEIPT LOG BOOK

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By  | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|--------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9254-03 / Acetone, Ultra Resi (cs/4x4L) | 24L1062001 | 10/04/2027      | 10/15/2025 / RITESHKUMAR | 09/29/2025 / Riteshkumar    | E3979          |

| 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 | 02/17/2026      | 02/18/2025 / Sagar      | 01/15/2025 / Sagar          | M6151          |

| Supplier         | ItemCode / ItemName                                   | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L) | 24D1062002 | 10/30/2025      | 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 # |
|------------------|-------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L) | 24H0162012 | 11/27/2025      | 05/27/2025 / Sagar      | 04/27/2025 / Sagar          | M6162          |

| 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          |

## CHEMICAL RECEIPT LOG BOOK

| 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          |

| 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. | J4296-1 / ZINC ACETATE, DIHYD, CRYST, ACS, 500G | 383058 | 07/05/2027      | 07/05/2022 / ketankumar | 07/05/2022 / ketankumar     | W2926          |

| Supplier                    | ItemCode / ItemName           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 31390 / 1,5-Diphenylcarbazide | 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 # |
|---------------|-------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| SIGMA ALDRICH | 270970-1L / Pyridine 1L | SHBQ2113 | 04/03/2028      | 04/03/2023 / lwona      | 04/03/2023 / lwona          | W3019          |

## CHEMICAL RECEIPT LOG BOOK

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

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

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

## CHEMICAL RECEIPT LOG BOOK

| 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          |

| 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 / lwona      | 01/03/2025 / lwona          | 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 / lwona      | 04/11/2025 / lwona          | W3200          |

## CHEMICAL RECEIPT LOG BOOK

| 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 | WXBFB3271V | 05/16/2029      | 04/21/2025 / lwona      | 04/21/2025 / lwona          | 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 | MKCY1379 | 01/31/2029      | 04/29/2025 / lwona      | 04/29/2025 / lwona          | W3206          |

| Supplier                    | ItemCode / ItemName                  | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AL35830-4 / IODINE SOLUTION .025N 1L | MK25A21527 | 01/20/2029      | 05/21/2025 / lwona      | 05/21/2025 / lwona          | W3213          |

| 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. | EMD-FX0410-5 / FORMALDEHYDE SOLUTION 450ML | MKCYW7614 | 12/31/2026      | 06/26/2025 / lwona      | 06/26/2025 / lwona          | W3220          |

### CHEMICAL RECEIPT LOG BOOK

| 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          |

| Supplier                    | ItemCode / ItemName                           | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-----------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AL69870-8 / SODIUM THIOSULFATE,0.025N,4LIT RE | 250904J | 02/28/2027      | 10/03/2025 / lwona      | 10/03/2025 / lwona          | W3248          |

# 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**  
SCIENTIFIC

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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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:

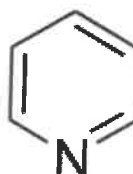
C<sub>5</sub>H<sub>5</sub>N

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



Material No.: 9254-03  
Batch No.: 24L1062001  
Manufactured Date: 2024-10-04  
Expiration Date: 2027-10-04  
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 %     | 99.7 %      |
| Color (APHA)                                                            | <= 10         | 5           |
| Residue after Evaporation                                               | <= 1.0 ppm    | 0.3 ppm     |
| Substances Reducing Permanganate                                        | Passes Test   | Passes Test |
| Titration Acid (µeq/g)                                                  | <= 0.3        | 0.1         |
| Titration Base (µeq/g)                                                  | <= 0.6        | <0.1        |
| Water (H <sub>2</sub> O)                                                | <= 0.5 %      | 0.3 %       |
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)    | <= 5          | <1          |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)    | <= 10         | 1           |

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

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

E3979

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

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

 **avantor™**

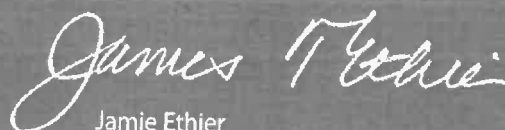


Material No.: 9673-33  
Batch No.: 23D2462010

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

For Laboratory, Research, or Manufacturing Use

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



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



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 >>>

### For Trace Metal Analysis



## Test

## Specification

## Result

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

*James Ethier*  
Jamie Ethier  
Vice President Global Quality

Nitric Acid 69%  
CMOS



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

avantor™



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 Division

Nitric Acid 69%  
CMOS



m-6162

Material No.: 9606-03  
Batch No.: 24H0162012  
Manufactured Date: 2024-06-28  
Retest Date: 2029-06-27  
Revision No.: 0

R. Date :- 04/27/2025

## 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    | < 1.0 ppb   |
| Trace Impurities – Boron (B)      | ≤ 10.0 ppb    | 0.1 ppb     |
| Trace Impurities – Cadmium (Cd)   | ≤ 50 ppb      | < 1 ppb     |
| Trace Impurities – Calcium (Ca)   | ≤ 50.0 ppb    | 0.3 ppb     |
| Trace Impurities – Chromium (Cr)  | ≤ 30.0 ppb    | 0.1 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      | < 1 ppb     |
| Trace Impurities – Gold (Au)      | ≤ 20 ppb      | < 1 ppb     |
| Heavy Metals (as Pb)              | ≤ 100 ppb     | < 50 ppb    |
| Trace Impurities – Iron (Fe)      | ≤ 40.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Lead (Pb)      | ≤ 20.0 ppb    | < 1.0 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    | < 1.0 ppb   |

>>> Continued on page 2 >>>

Nitric Acid 69%  
CMOS

avantor™



Material No.: 9606-03  
Batch No.: 24H0162012

| Test                                | Specification | Result    |
|-------------------------------------|---------------|-----------|
| Trace Impurities – Niobium (Nb)     | ≤ 50.0 ppb    | < 1.0 ppb |
| Trace Impurities – Potassium (K)    | ≤ 50 ppb      | < 1 ppb   |
| Trace Impurities – Silicon (Si)     | ≤ 50 ppb      | 1 ppb     |
| Trace Impurities – Silver (Ag)      | ≤ 20.0 ppb    | < 1.0 ppb |
| Trace Impurities – Sodium (Na)      | ≤ 150.0 ppb   | < 1.0 ppb |
| Trace Impurities – Strontium (Sr)   | ≤ 30.0 ppb    | < 1.0 ppb |
| Trace Impurities – Tantalum (Ta)    | ≤ 10.0 ppb    | < 1.0 ppb |
| Trace Impurities – Thallium (Tl)    | ≤ 10.0 ppb    | < 1.0 ppb |
| Trace Impurities – Tin (Sn)         | ≤ 20.0 ppb    | < 1.0 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   | 13 par/ml |
| Particle Count – 1.0 µm and greater | ≤ 10 par/ml   | 5 par/ml  |

>>> Continued on page 3 >>>



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

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

*Joak*

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

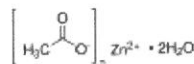
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

## Certificate of Analysis

Product Name:

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

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



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

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

  
Larry Coers, Director  
Quality Control  
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](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.



W 2979

Rec: 12/09/22

exp. 12/09/27

Product Name:

1,5-Diphenylcarbazide - ACS reagent

Product Number:

259225

Batch Number:

MKCR6636

Brand:

SIAL

CAS Number:

140-22-7

MDL Number:

MFCD00003013

Formula:

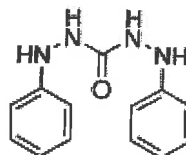
C<sub>13</sub>H<sub>14</sub>N<sub>4</sub>O

Formula Weight:

242.28 g/mol

Quality Release Date:

02 JUN 2022



## Certificate of Analysis

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



Larry Coers, Director  
Quality Control  
Milwaukee, WI US

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





## Certificate of Analysis

W3093  
094121  
04/03/2024  
16

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

Lot Number: 4401F99

Product Number: 1551

Manufacture Date: JAN 08, 2024

Expiration Date: DEC 2025

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

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

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

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

| Test       | Specification | Result |
|------------|---------------|--------|
| Appearance | Yellow liquid | Passed |

\*Not a certified value.

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

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

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

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

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



Paul Brandon (01/08/2024)

Production Manager

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

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

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

## Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

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

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

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

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

### Additional Information

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

Product meets analytical specifications of the grades listed.



Sodium Hydroxide (Pellets)

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

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

Spec Set: 0583ACS

Internal ID #: 710

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

W3139 Received on 9/9/24 by IZ

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

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

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



# Certificate of Analysis

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

Lot Number: 4408P62

Product Number: 8000

Manufacture Date: AUG 28, 2024

Expiration Date: AUG 2026

This product is Mercury-free.

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

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

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

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

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 8000-1      | 4 L natural poly    | 24 months                       |
| 8000-16     | 500 mL natural poly | 24 months                       |
| 8000-32     | 1 L natural poly    | 24 months                       |

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

Paul Brandon

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# 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

## 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 |
|-------------------------|-------|

|                           |                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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%<br>Phosphate (PO <sub>4</sub> ) : < 5 ppm<br>Sulfate (SO <sub>4</sub> ) : < 0.002%                                                                                                    |
| <b>Cation</b>             | Ammonium (NH <sub>4</sub> ) : < 0.002%<br>Barium (Ba) : 0.005%<br>Calcium (Ca) : 0.01%<br>Iron (Fe) : 4.5 ppm<br>Manganese (Mn) : 0.624 ppm<br>Potassium (K) : 0.004%<br>Sodium (Na) : 0.000003%<br>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**



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

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# 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.<br><br>This document has been electronically produced and is valid without a signature.<br><br>Leona Edwardson, Quality Control Sr. Manager - Solon<br>VWR Chemicals, LLC.<br>28600 Fountain Parkway, Solon OH 44139 USA | Analysis may have been rounded to significant digits in specification limits<br><br>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<br/>VWR Chemicals, LLC.<br/>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> |

**RICCA CHEMICAL COMPANY®**

1841 Broad Street  
Pocomoke City, MD 21851  
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[customerservice@riccachemical.com](mailto:customerservice@riccachemical.com)

# Certificate of Analysis

W21758 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**

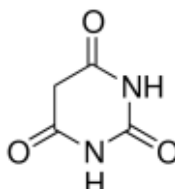
This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

## 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

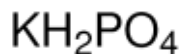
Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical 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.





|                           |                        |
|---------------------------|------------------------|
| Material                  | BDHVBDH7206-1          |
| Material Description      | IODINE SOLUTION 0.025N |
| Lot                       | 25A2461008             |
| Expires end of            | 2029-Jan-20            |
| Molecular mass            | 0                      |
| Last Quality Control      | 2025-Jan-24            |
| Date of manufacture       | 2025-Jan-21            |
| Made in                   | United States          |
| Manufacturer Source Batch | MK25A21527             |

Additional information

| Characteristics                 | Specifications  | Measured values |
|---------------------------------|-----------------|-----------------|
| Prepared to formulation on file | Confirmed       | Confirmed       |
| Appearance                      | Passes Test     | Passes Test     |
| Normality, N                    | 0.0200 - 0.0300 | 0.0268          |

Signature

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

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

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

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

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

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

BDHVBDH72 25A2461008 Page 1 of 155

# 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)



# 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**

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## Certificate of Analysis

Product Name:

Formaldehyde solution - ACS reagent, 37 wt. % in H<sub>2</sub>O, contains 10-15% Methanol as stabilizer (to prevent polymerization)

Product Number: 252549

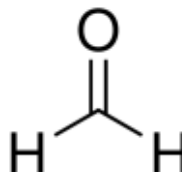
Batch Number: MKCW7614

Brand: SIAL

MDL Number: MFCD00003274

Quality Release Date: 05 DEC 2024

Recommended Retest Date: DEC 2026



| Test                                        | Specification             | Result     |
|---------------------------------------------|---------------------------|------------|
| Appearance (Color)                          | Colorless                 | Colorless  |
| Appearance (Form)                           | Liquid                    | Liquid     |
| Infrared Spectrum                           | Conforms to Structure     | Conforms   |
| Titration by H <sub>2</sub> SO <sub>4</sub> | 36.5 - 38.0 %             | 36.6 %     |
| Residue on ignition (Ash)                   | ≤ 0.005 %                 | 0.004 %    |
| Color Test                                  | ≤ 10 APHA                 | 5 APHA     |
| Chloride (Cl)                               | ≤ 5 ppm                   | < 5 ppm    |
| Iron (Fe)                                   | ≤ 5 ppm                   | < 1 ppm    |
| Heavy Metals                                | ≤ 5 ppm                   | 2 ppm      |
| by ICP-OES                                  |                           |            |
| Sulfate (SO <sub>4</sub> )                  | < = 0.002%                | < = 0.002% |
| Titrateable Acid (meq/g)                    | ≤ 0.006                   | < 0.006    |
| Note                                        | Confirmed                 | Conforms   |
| Stabilized with 10% to 15% Methanol         |                           |            |
| Meets ACS Requirements                      | Current ACS Specification | Conforms   |
| Recommended Retest Period                   | -----                     | -----      |
| 2 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 (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  
Chemistry Supervisor - Quality Control

ISO9001:2015 Registration #0306-01

# Certificate of Analysis

## Sodium Thiosulfate, 0.0250 Normal (N/40)

**Lot Number:** 250904J

**Product Number:** 7900

**Manufacture Date:** SEP 03, 2025

**Expiration Date:** FEB 2027

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

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

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

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

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

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 7900-1      | 4 L natural poly    | 18 months                       |
| 7900-16     | 500 mL natural poly | 18 months                       |
| 7900-32     | 1 L natural poly    | 18 months                       |

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



Jose Pena (09/03/2025)  
Operations Manager

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

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/22/2025

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:15  
In Date: 10/21/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:15  
Out Date: 10/22/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID-OVEN

QC:LB137592

| 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        |
|----------|---------------------|--------|----------------|--------------|-------------------------|---------------------------|---------|-----------------|
| Q3399-01 | COMP-ROLLOFF        | 13     | 1.15           | 10.96        | 12.11                   | 11.00                     | 89.9    |                 |
| Q3401-01 | 41-CONCRETE         | 1      | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | Concrete sample |
| Q3402-01 | 41-LA               | 2      | 1.15           | 10.90        | 12.05                   | 8.69                      | 69.2    |                 |
| Q3402-02 | 41-LA-E2            | 3      | 1.13           | 10.64        | 11.77                   | 10.2                      | 85.2    |                 |
| Q3402-04 | 41-RA               | 4      | 1.16           | 10.73        | 11.89                   | 7.61                      | 60.1    |                 |
| Q3402-05 | 41-RA-E2            | 5      | 1.16           | 10.98        | 12.14                   | 7.39                      | 56.7    |                 |
| Q3402-07 | 41-LB               | 6      | 1.16           | 10.77        | 11.93                   | 8.26                      | 65.9    |                 |
| Q3402-08 | 41-LB-E2            | 7      | 1.16           | 10.95        | 12.11                   | 6.22                      | 46.2    |                 |
| Q3402-10 | 41-RB               | 8      | 1.11           | 10.87        | 11.98                   | 7.01                      | 54.3    |                 |
| Q3402-11 | 41-RB-E2            | 9      | 1.15           | 10.68        | 11.83                   | 9.78                      | 80.8    |                 |
| Q3403-01 | MH-18               | 10     | 1.19           | 10.49        | 11.68                   | 10.75                     | 91.1    |                 |
| Q3403-02 | MH-18-EPH           | 11     | 1.16           | 10.66        | 11.82                   | 10.8                      | 90.4    |                 |
| Q3403-03 | MH-18-VOC           | 12     | 1.19           | 11.37        | 12.56                   | 11.59                     | 91.5    |                 |
| Q3404-01 | MOO-25-0285-0288    | 14     | 1.15           | 10.74        | 11.89                   | 10.22                     | 84.5    |                 |
| Q3404-03 | MOO-25-0285-0288-E2 | 15     | 1.19           | 10.42        | 11.61                   | 9.77                      | 82.3    |                 |
| Q3404-04 | MOO-25-0292         | 16     | 1.18           | 10.22        | 11.4                    | 10.5                      | 91.2    |                 |
| Q3404-07 | MOO-25-0292-EPH-2   | 17     | 1.14           | 10.27        | 11.41                   | 10.44                     | 90.6    |                 |
| Q3405-01 | PAD-10-20-25-A      | 18     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | Concrete sample |
| Q3405-02 | PAD-10-20-25-B      | 19     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | Concrete sample |
| Q3405-03 | PAD-10-20-25-C      | 20     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | Concrete sample |
| Q3405-04 | SW-10-20-25-A       | 21     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | Concrete sample |
| Q3406-01 | ARS20-0037          | 22     | 1.18           | 11.19        | 12.37                   | 11.24                     | 89.9    |                 |
| Q3406-03 | ARS20-0037-E2       | 23     | 1.18           | 11.48        | 12.66                   | 11.4                      | 89.0    |                 |
| Q3407-01 | L35-A               | 24     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC            |
| Q3407-02 | L35-B               | 25     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC            |
| Q3407-03 | L36-A               | 26     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC            |
| Q3407-04 | L36-B               | 27     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC            |
| Q3407-05 | L37-A               | 28     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC            |

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/22/2025

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:15  
In Date: 10/21/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:15  
Out Date: 10/22/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID-OVEN

QC:LB137592

| 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 |
|----------|-----------------|--------|----------------|--------------|-------------------------|---------------------------|---------|----------|
| Q3407-06 | L37-B           | 29     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-07 | L38-A           | 30     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-08 | L38-B           | 31     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-09 | L39-A           | 32     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-10 | L39-B           | 33     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-11 | L40-A           | 34     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-12 | L40-B           | 35     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-13 | L41-A           | 36     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-14 | L41-B           | 37     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-15 | L42-A           | 38     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-16 | L42-B           | 39     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-17 | L43-A           | 40     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-18 | L43-B           | 41     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-19 | L44-A           | 42     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-20 | L44-B           | 43     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-21 | L45-A           | 44     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-22 | L45-B           | 45     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-23 | L46-A           | 46     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-24 | L46-B           | 47     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-25 | L47-A           | 48     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-26 | L47-B           | 49     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-27 | L48-A           | 50     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-28 | L48-B           | 51     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-29 | L49-A           | 52     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-30 | L49-B           | 53     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-31 | L50-A           | 54     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-32 | L50-B           | 55     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |
| Q3407-33 | L51-A           | 56     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC     |

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/22/2025

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:15  
In Date: 10/21/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:15  
Out Date: 10/22/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID-OVEN

QC:LB137592

| 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         |
|----------|-----------------------|--------|----------------|--------------|-------------------------|---------------------------|---------|------------------|
| Q3407-34 | L51-B                 | 57     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC             |
| Q3407-35 | L52-A                 | 58     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC             |
| Q3407-36 | L52-B                 | 59     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC             |
| Q3407-37 | L53-A                 | 60     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC             |
| Q3407-38 | L53-B                 | 61     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC             |
| Q3407-39 | 245F69-A              | 62     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC             |
| Q3407-40 | 245F69-B              | 63     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | PILC             |
| Q3408-01 | ASPHALT-A             | 64     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | ASPHALT          |
| Q3408-02 | ASPHALT-B             | 65     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | ASPHALT          |
| Q3408-03 | ASPHALT-C             | 66     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | ASPHALT          |
| Q3408-04 | ASPHALT-D             | 67     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | ASPHALT          |
| Q3409-01 | EXCAVATION-AREA-A     | 68     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | Concreate sample |
| Q3409-02 | EXCAVATION-AREA-B     | 69     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | Concreate sample |
| Q3410-01 | WASTE                 | 70     | 1.14           | 10.45        | 11.59                   | 9.59                      | 80.9    |                  |
| Q3410-02 | VOC                   | 71     | 1.15           | 10.55        | 11.7                    | 9.64                      | 80.5    |                  |
| Q3410-03 | 1                     | 72     | 1.15           | 10.97        | 12.12                   | 9.89                      | 79.7    |                  |
| Q3410-04 | 2                     | 73     | 1.13           | 11.27        | 12.4                    | 11.24                     | 89.7    |                  |
| Q3410-05 | 3                     | 74     | 1.16           | 10.62        | 11.78                   | 9.6                       | 79.5    |                  |
| Q3410-06 | 4                     | 75     | 1.12           | 10.50        | 11.62                   | 9.76                      | 82.3    |                  |
| Q3410-07 | 5                     | 76     | 1.16           | 10.50        | 11.66                   | 9.43                      | 78.8    |                  |
| Q3412-01 | TP-6                  | 77     | 1.14           | 10.81        | 11.95                   | 10.84                     | 89.7    |                  |
| Q3412-02 | TP-6-EPH              | 78     | 1.18           | 10.73        | 11.91                   | 10.7                      | 88.7    |                  |
| Q3412-03 | TP-6-VOC              | 79     | 1.15           | 10.52        | 11.67                   | 10.38                     | 87.7    |                  |
| Q3413-01 | BP-VPB-184-GW-980-982 | 80     | 1.14           | 11.55        | 12.69                   | 2.00                      | 7.4     | sludge sample    |
| Q3414-01 | SB-1                  | 81     | 1.13           | 10.12        | 11.25                   | 11.17                     | 99.2    |                  |
| Q3414-02 | SB-2                  | 82     | 1.15           | 10.62        | 11.77                   | 11.6                      | 98.4    |                  |
| Q3414-03 | SB-3                  | 83     | 1.13           | 10.53        | 11.66                   | 11.4                      | 97.5    |                  |
| Q3414-04 | SB-4                  | 84     | 1.14           | 10.28        | 11.42                   | 11.3                      | 98.8    |                  |

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/22/2025

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:15  
In Date: 10/21/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:15  
Out Date: 10/22/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID-OVEN

QC:LB137592

| 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    |
|----------|-------------------|--------|-----------------|---------------|--------------------------|----------------------------|---------|-------------|
| Q3414-05 | SB-5              | 85     | 1.16            | 10.25         | 11.41                    | 11.34                      | 99.3    |             |
| Q3414-06 | SB-6              | 86     | 1.18            | 10.36         | 11.54                    | 11.49                      | 99.5    |             |
| Q3414-07 | SB-7              | 87     | 1.15            | 10.25         | 11.4                     | 11.26                      | 98.6    |             |
| Q3414-08 | SB-8              | 88     | 1.19            | 10.25         | 11.44                    | 11.14                      | 97.1    |             |
| Q3414-09 | SB-9              | 89     | 1.16            | 10.31         | 11.47                    | 11.18                      | 97.2    |             |
| Q3414-10 | SB-10             | 90     | 1.14            | 10.55         | 11.69                    | 11.6                       | 99.1    |             |
| Q3414-11 | SB-11             | 91     | 1.19            | 10.20         | 11.39                    | 11.04                      | 96.6    |             |
| Q3414-12 | SB-12             | 92     | 1.18            | 10.10         | 11.28                    | 10.9                       | 96.2    |             |
| Q3414-13 | SB-13             | 93     | 1.14            | 10.06         | 11.2                     | 10.85                      | 96.5    |             |
| Q3415-01 | 50841             | 94     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | WIPE SAMPLE |
| Q3415-02 | 50842             | 95     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | WIPE SAMPLE |
| Q3415-03 | 50843             | 96     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | WIPE SAMPLE |
| Q3416-01 | NB-08-10212025    | 97     | 1.15            | 10.52         | 11.67                    | 11.02                      | 93.8    |             |
| Q3416-02 | NB-08-10212025-E2 | 98     | 1.18            | 10.92         | 12.1                     | 11.43                      | 93.9    |             |

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

## WORKLIST(Hardcopy Internal Chain)

137592

WorkList Name : %1-102125

WorkList ID : 192565

Department : Wet-Chemistry

Date : 10-21-2025 08:08:50

| Sample   | Customer Sample     | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|---------------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| Q3399-01 | COMP-ROLLOFF        | Solid  | Percent Solids | Cool 4 deg C | ICES02   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3401-01 | 41-CONCRETE         | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3402-01 | 41-LA               | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3402-02 | 41-LA-E2            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3402-04 | 41-RA               | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3402-05 | 41-RA-E2            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3402-07 | 41-LB               | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3402-08 | 41-LB-E2            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3402-10 | 41-RB               | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3402-11 | 41-RB-E2            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3403-01 | MH-18               | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3403-02 | MH-18-EPH           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3403-03 | MH-18-VOC           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3404-01 | MOO-25-0285-0288    | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3404-03 | MOO-25-0285-0288-E2 | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3404-04 | MOO-25-0292         | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3404-07 | MOO-25-0292-EPH-2   | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3405-01 | PAD-10-20-25-A      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3405-02 | PAD-10-20-25-B      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3405-03 | PAD-10-20-25-C      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3405-04 | SW-10-20-25-A       | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |

Date/Time 10/21/25 15:00

Raw Sample Received by: 88 WOC

Raw Sample Relinquished by: CAP 88

Date/Time 10/21/25

Raw Sample Received by: CAP 88

Raw Sample Relinquished by: 88 WOC

## WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-102125

WorkList ID : 192565

Department : Wet-Chemistry

Date : 10-21-2025 08:08:50

| Sample   | Customer Sample | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| Q3406-01 | ARS20-0037      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3406-03 | ARS20-0037-E2   | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3407-01 | L35-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-02 | L35-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-03 | L36-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-04 | L36-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-05 | L37-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-06 | L37-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-07 | L38-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-08 | L38-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-09 | L39-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-10 | L39-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-11 | L40-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-12 | L40-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-13 | L41-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-14 | L41-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-15 | L42-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-16 | L42-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-17 | L43-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-18 | L43-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-19 | L44-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |

Date/Time 10/21/25 15:00  
Raw Sample Received by: SS WOC  
Raw Sample Relinquished by: QFS

Date/Time 10/21/25 17:30  
Raw Sample Received by: QFS  
Raw Sample Relinquished by: SS WOC

## WORKLIST(Hardcopy Internal Chain)

137592

WorkList Name : %1-102125

WorkList ID : 192565

Department : Wet-Chemistry

Date : 10-21-2025 08:08:50

| Sample   | Customer Sample | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| Q3407-20 | L44-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-21 | L45-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-22 | L45-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-23 | L46-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-24 | L46-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-25 | L47-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-26 | L47-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-27 | L48-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-28 | L48-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-29 | L49-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-30 | L49-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-31 | L50-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-32 | L50-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-33 | L51-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-34 | L51-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-35 | L52-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-36 | L52-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-37 | L53-A           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-38 | L53-B           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-39 | 245F69-A        | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3407-40 | 245F69-B        | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |

Date/Time 10/21/25 151.00  
Raw Sample Received by: [Signature]  
Raw Sample Relinquished by: [Signature]

Date/Time 10/21/25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

## WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-102125 WorkList ID : 192565 Department : Wet-Chemistry Date : 10-21-2025 08:08:50

| Sample   | Customer Sample       | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| Q3408-01 | ASPHALT-A             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3408-02 | ASPHALT-B             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3408-03 | ASPHALT-C             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3408-04 | ASPHALT-D             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3409-01 | EXCAVATION-AREA-A     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3409-02 | EXCAVATION-AREA-B     | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3410-01 | WASTE                 | Solid  | Percent Solids | Cool 4 deg C | SCIA01   | J11                         | 10/20/2025   | Chemtech -SO |
| Q3410-02 | VOC                   | Solid  | Percent Solids | Cool 4 deg C | SCIA01   | J11                         | 10/20/2025   | Chemtech -SO |
| Q3410-03 | 1                     | Solid  | Percent Solids | Cool 4 deg C | SCIA01   | J11                         | 10/20/2025   | Chemtech -SO |
| Q3410-04 | 2                     | Solid  | Percent Solids | Cool 4 deg C | SCIA01   | J11                         | 10/20/2025   | Chemtech -SO |
| Q3410-05 | 3                     | Solid  | Percent Solids | Cool 4 deg C | SCIA01   | J11                         | 10/20/2025   | Chemtech -SO |
| Q3410-06 | 4                     | Solid  | Percent Solids | Cool 4 deg C | SCIA01   | J11                         | 10/20/2025   | Chemtech -SO |
| Q3410-07 | 5                     | Solid  | Percent Solids | Cool 4 deg C | SCIA01   | J11                         | 10/20/2025   | Chemtech -SO |
| Q3412-01 | TP-6                  | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3412-02 | TP-6-EPH              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3412-03 | TP-6-VOC              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3413-01 | BP-VPB-184-GW-980-982 | Solid  | Percent Solids | Cool 4 deg C | TETR06   | D31                         | 10/20/2025   | Chemtech -SO |
| Q3414-01 | SB-1                  | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/17/2025   | Chemtech -SO |
| Q3414-02 | SB-2                  | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3414-03 | SB-3                  | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3414-04 | SB-4                  | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |

Date/Time 10/21/25 15:00 Date/Time 10/21/25 17:30  
Raw Sample Received by: TB ywo Raw Sample Received by: CP SN  
Raw Sample Relinquished by: OP SN Raw Sample Relinquished by: TB ywo

## WORKLIST(Hardcopy Internal Chain)

N-137592

WorkList Name : %1-102125      WorkList ID : 192565      Department : Wet-Chemistry      Date : 10-21-2025 08:08:50

| Sample   | Customer Sample   | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-------------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| Q3414-05 | SB-5              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3414-06 | SB-6              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3414-07 | SB-7              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3414-08 | SB-8              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3414-09 | SB-9              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3414-10 | SB-10             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3414-11 | SB-11             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3414-12 | SB-12             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3414-13 | SB-13             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D32                         | 10/21/2025   | Chemtech -SO |
| Q3415-01 | 50841             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/21/2025   | Chemtech -SO |
| Q3415-02 | 50842             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/21/2025   | Chemtech -SO |
| Q3415-03 | 50843             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/21/2025   | Chemtech -SO |
| Q3416-01 | NB-08-10212025    | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | D31                         | 10/21/2025   | Chemtech -SO |
| Q3416-02 | NB-08-10212025-E2 | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | D31                         | 10/21/2025   | Chemtech -SO |
| Q3418-01 | 101725            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/21/2025   | Chemtech -SO |
| Q3418-02 | 101725-A          | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/21/2025   | Chemtech -SO |
| Q3418-03 | 101725-B          | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/21/2025   | Chemtech -SO |

Date/Time

10/21/25 15:00

Raw Sample Received by:

SB WCC

Raw Sample Relinquished by:

cd sm

Date/Time

10/21/25

Raw Sample Received by:

cd sm

Raw Sample Relinquished by:

SB WCC

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/24/2025

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:25  
In Date: 10/23/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:15  
Out Date: 10/24/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID-OVEN

QC:LB137624

| 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   |
|----------|--------------------|--------|----------------|--------------|-------------------------|---------------------------|---------|------------|
| Q3399-03 | COMP-ROLLOFF       | 15     | 1.15           | 10.96        | 12.11                   | 11.00                     | 89.9    |            |
| Q3437-03 | SS-15R(2.0-2.5)    | 1      | 1.18           | 10.46        | 11.64                   | 10.32                     | 87.4    |            |
| Q3437-05 | SS-26(0-0.5)       | 2      | 1.16           | 10.19        | 11.35                   | 10.17                     | 88.4    |            |
| Q3437-11 | SS-27(0-0.5)       | 3      | 1.17           | 10.34        | 11.51                   | 10.85                     | 93.6    |            |
| Q3437-14 | SS-25(0-0.5)       | 4      | 1.11           | 10.33        | 11.44                   | 10.34                     | 89.4    |            |
| Q3437-16 | SS-23(0-0.5)       | 5      | 1.13           | 10.84        | 11.97                   | 11.26                     | 93.5    |            |
| Q3439-01 | TP-9               | 6      | 1.18           | 10.29        | 11.47                   | 10.55                     | 91.1    |            |
| Q3439-02 | TP-9-EPH           | 7      | 1.19           | 10.61        | 11.8                    | 10.87                     | 91.2    |            |
| Q3439-03 | TP-9-VOC           | 8      | 1.18           | 10.14        | 11.32                   | 10.41                     | 91.0    |            |
| Q3439-05 | TP-10              | 9      | 1.15           | 10.60        | 11.75                   | 10.82                     | 91.2    |            |
| Q3439-06 | TP-10-EPH          | 10     | 1.19           | 10.17        | 11.36                   | 10.44                     | 91.0    |            |
| Q3439-07 | TP-10-VOC          | 11     | 1.18           | 10.31        | 11.49                   | 10.37                     | 89.1    |            |
| Q3440-01 | JB-2               | 12     | 1.13           | 11.32        | 12.45                   | 10.38                     | 81.7    |            |
| Q3440-02 | JB-2-EPH           | 13     | 1.17           | 10.42        | 11.59                   | 9.79                      | 82.7    |            |
| Q3440-03 | JB-2-VOC           | 14     | 1.13           | 8.36         | 9.49                    | 8.14                      | 83.9    |            |
| Q3445-01 | EO-01-102325       | 16     | 1.14           | 10.46        | 11.6                    | 10.74                     | 91.8    |            |
| Q3445-02 | EO-01-102325-E2    | 17     | 1.16           | 10.40        | 11.56                   | 10.57                     | 90.5    |            |
| Q3446-01 | SB-14              | 18     | 1.11           | 10.00        | 11.11                   | 10.82                     | 97.1    |            |
| Q3446-02 | SB-15              | 19     | 1.14           | 10.54        | 11.68                   | 11.64                     | 99.6    |            |
| Q3446-03 | SB-16              | 20     | 1.19           | 10.31        | 11.5                    | 11.44                     | 99.4    |            |
| Q3446-04 | SB-17              | 21     | 1.19           | 10.13        | 11.32                   | 11.27                     | 99.5    |            |
| Q3446-05 | SB-18              | 22     | 1.19           | 10.53        | 11.72                   | 11.67                     | 99.5    |            |
| Q3446-06 | SB-19              | 23     | 1.15           | 10.44        | 11.59                   | 11.32                     | 97.4    |            |
| Q3446-07 | SB-20              | 24     | 1.16           | 10.50        | 11.66                   | 11.6                      | 99.4    |            |
| Q3446-08 | SB-21              | 25     | 1.14           | 10.08        | 11.22                   | 10.9                      | 96.8    |            |
| Q3447-01 | P001-TW1-251023-01 | 26     | 1.00           | 1.00         | 2.00                    | 2.00                      | 100.0   | TAR SAMPLE |
| Q3447-03 | P001-TW2-251023-01 | 27     | 1.19           | 10.43        | 11.62                   | 10.75                     | 91.7    |            |
| Q3447-05 | P001-TW3-251023-01 | 28     | 1.18           | 10.70        | 11.88                   | 11.64                     | 97.8    |            |



PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 10/24/2025

OVENTEMP IN Celsius(°C): 107  
Time IN: 17:25  
In Date: 10/23/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104  
Time OUT: 08:15  
Out Date: 10/24/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID-OVEN

QC:LB137624

| 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   |
|----------|--------------------|--------|-----------------|---------------|--------------------------|----------------------------|---------|------------|
| Q3447-07 | P001-TW4-251023-01 | 29     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | TAR SAMPLE |

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

## WORKLIST(Hardcopy Internal Chain)



WorkList Name : %1-102325

WorkList ID : 192629

Department : Wet-Chemistry

Date : 10-23-2025 08:26:05

| Sample   | Customer Sample | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| Q3399-03 | COMP-ROLLOFF    | Solid  | Percent Solids | Cool 4 deg C | ICES02   | D41                         | 10/20/2025   | Chemtech -SO |
| Q3437-03 | SS-15R(2.0-2.5) | Solid  | Percent Solids | Cool 4 deg C | MATR02   | D31                         | 10/22/2025   | Chemtech -SO |
| Q3437-05 | SS-26(0-0.5)    | Solid  | Percent Solids | Cool 4 deg C | MATR02   | D31                         | 10/22/2025   | Chemtech -SO |
| Q3437-11 | SS-27(0-0.5)    | Solid  | Percent Solids | Cool 4 deg C | MATR02   | D31                         | 10/22/2025   | Chemtech -SO |
| Q3437-14 | SS-25(0-0.5)    | Solid  | Percent Solids | Cool 4 deg C | MATR02   | D31                         | 10/22/2025   | Chemtech -SO |
| Q3437-16 | SS-23(0-0.5)    | Solid  | Percent Solids | Cool 4 deg C | MATR02   | D31                         | 10/22/2025   | Chemtech -SO |
| Q3439-01 | TP-9            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/22/2025   | Chemtech -SO |
| Q3439-02 | TP-9-EPH        | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/22/2025   | Chemtech -SO |
| Q3439-03 | TP-9-VOC        | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/22/2025   | Chemtech -SO |
| Q3439-05 | TP-10           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/22/2025   | Chemtech -SO |
| Q3439-06 | TP-10-EPH       | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/23/2025   | Chemtech -SO |
| Q3439-07 | TP-10-VOC       | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/23/2025   | Chemtech -SO |
| Q3440-01 | JB-2            | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/23/2025   | Chemtech -SO |
| Q3440-02 | JB-2-EPH        | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/22/2025   | Chemtech -SO |
| Q3440-03 | JB-2-VOC        | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D41                         | 10/22/2025   | Chemtech -SO |
| Q3445-01 | EO-01-102325    | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | D31                         | 10/23/2025   | Chemtech -SO |
| Q3445-02 | EO-01-102325-E2 | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | D31                         | 10/23/2025   | Chemtech -SO |
| Q3446-01 | SB-14           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/23/2025   | Chemtech -SO |
| Q3446-02 | SB-15           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/23/2025   | Chemtech -SO |
| Q3446-03 | SB-16           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/23/2025   | Chemtech -SO |
| Q3446-04 | SB-17           | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/23/2025   | Chemtech -SO |

Date/Time 10/23/25 15:00

Raw Sample Received by: gdc (wpc)

Raw Sample Relinquished by: gdc (sm)

Date/Time 10/23/25

Raw Sample Received by: gdc (sm)

Raw Sample Relinquished by: gdc (wpc)

## WORKLIST(Hardcopy Internal Chain)

10/23/25

WorkList Name : %1-102325

WorkList ID : 192629

Department : Wet-Chemistry

Date : 10-23-2025 08:26:05

| Sample   | Customer Sample    | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|--------------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| Q3446-05 | SB-18              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/23/2025   | Chemtech -SO |
| Q3446-06 | SB-19              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/23/2025   | Chemtech -SO |
| Q3446-07 | SB-20              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/23/2025   | Chemtech -SO |
| Q3446-08 | SB-21              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | D31                         | 10/23/2025   | Chemtech -SO |
| Q3447-01 | P001-TW1-251023-01 | Solid  | Percent Solids | Cool 4 deg C | ROYF02   | D41                         | 10/23/2025   | Chemtech -SO |
| Q3447-03 | P001-TW2-251023-01 | Solid  | Percent Solids | Cool 4 deg C | ROYF02   | D41                         | 10/23/2025   | Chemtech -SO |
| Q3447-05 | P001-TW3-251023-01 | Solid  | Percent Solids | Cool 4 deg C | ROYF02   | D41                         | 10/23/2025   | Chemtech -SO |
| Q3447-07 | P001-TW4-251023-01 | Solid  | Percent Solids | Cool 4 deg C | ROYF02   | D41                         | 10/23/2025   | Chemtech -SO |

Date/Time 10/23/25 15:00  
Raw Sample Received by: JG WWC  
Raw Sample Relinquished by: JG WWC

Date/Time 10/23/25 17:30  
Raw Sample Received by: JG WWC  
Raw Sample Relinquished by: JG WWC



# SHIPPING DOCUMENTS

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

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: TCE Service Group, Inc.  
ADDRESS: 125 Bloomingdale Rd  
CITY Levittown STATE: N.Y. ZIP:   
ATTENTION: Dennis d. Morgan, II  
PHONE:  FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: ICES 02  
PROJECT NO.:  LOCATION:   
PROJECT MANAGER:   
e-mail:   
PHONE:  FAX:

CLIENT BILLING INFORMATION

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

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH)  DAYS\*  
HARDCOPY (DATA PACKAGE): 72 HR TAT DAYS\*  
EDD:  DAYS\*  
\*TO BE APPROVED BY CHEMTECH  
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

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

1. TCL 2. TCLP 3. Hev 4. DF 5. PL 6.  7.  8.  9.

| ALLIANCE<br>SAMPLE<br>ID | PROJECT<br>SAMPLE IDENTIFICATION | SAMPLE<br>MATRIX | SAMPLE<br>TYPE |          | SAMPLE<br>COLLECTION |              | # OF BOTTLES | PRESERVATIVES |          |          |          |          |   |   |   |   | COMMENTS         |
|--------------------------|----------------------------------|------------------|----------------|----------|----------------------|--------------|--------------|---------------|----------|----------|----------|----------|---|---|---|---|------------------|
|                          |                                  |                  | COMP           | GRAB     | DATE                 | TIME         |              | 1             | 2        | 3        | 4        | 5        | 6 | 7 | 8 | 9 |                  |
| 1.                       | <u>Comp-Rolloff</u>              | <u>50L</u>       | <u>X</u>       |          | <u>10-20-25</u>      | <u>12:00</u> | <u>6</u>     |               |          | <u>X</u> | <u>X</u> | <u>X</u> |   |   |   |   | <u>PiD = 1.3</u> |
| 2.                       |                                  | <u>I</u>         |                | <u>X</u> | <u>I</u>             | <u>12:04</u> | <u>3</u>     | <u>X</u>      | <u>X</u> |          |          |          |   |   |   |   | <u>PiD = 1.3</u> |
| 3.                       |                                  |                  |                |          |                      |              |              |               |          |          |          |          |   |   |   |   |                  |
| 4.                       |                                  |                  |                |          |                      |              |              |               |          |          |          |          |   |   |   |   |                  |
| 5.                       |                                  |                  |                |          |                      |              |              |               |          |          |          |          |   |   |   |   |                  |
| 6.                       |                                  |                  |                |          |                      |              |              |               |          |          |          |          |   |   |   |   |                  |
| 7.                       |                                  |                  |                |          |                      |              |              |               |          |          |          |          |   |   |   |   |                  |
| 8.                       |                                  |                  |                |          |                      |              |              |               |          |          |          |          |   |   |   |   |                  |
| 9.                       |                                  |                  |                |          |                      |              |              |               |          |          |          |          |   |   |   |   |                  |
| 10.                      |                                  |                  |                |          |                      |              |              |               |          |          |          |          |   |   |   |   |                  |

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

|                                                   |                                             |                                       |                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------|---------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RELINQUISHED BY SAMPLER:<br>1. <u>[Signature]</u> | DATE/TIME: <u>1300</u><br><u>10-20-2025</u> | RECEIVED BY:<br>1. <u>[Signature]</u> | Conditions of bottles or coolers at receipt: <input type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input checked="" type="checkbox"/> COOLER TEMP <u>35</u> °C<br>Comments: <u>*PiD Meter Calibrated 10-20-2025 *</u><br><u>Equal Volume of soil used,</u> |
| RELINQUISHED BY SAMPLER:<br>2. <u>[Signature]</u> | DATE/TIME: <u></u>                          | RECEIVED BY:<br>2. <u>[Signature]</u> |                                                                                                                                                                                                                                                                                 |
| RELINQUISHED BY SAMPLER:<br>3. <u>[Signature]</u> | DATE/TIME: <u>1759</u><br><u>10-20-2025</u> | RECEIVED BY:<br>3. <u>[Signature]</u> |                                                                                                                                                                                                                                                                                 |

Page  of

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete  
☐ YES ☐ NO

Project Name: ICE502

Sampler Name: Lawrence C. A.  
Client Project Coordinator & Phone:

Service Order #.

**Work Order #:**

Labor WBS #:

Facility/Site:

Site Address:

Site Address: 125 Bloomingdale  
Ave. Levittown, N.Y.

Page #: 1 of 1

Date: 10.20.2020

Arrive Time: 1:28 PM

Depart Time: 1300

Waste Stream (circle one): drum / roll-off

pile / in-situ / linear construction (frac-tank

**Sample Matrices** (circle all that apply). We

☒ Solid / NAPL / Concrete / Wipe

5

### Collection Depths:

Temp./range:

PID Readings (range):

PPM

Odor: Y / N Y Color: Y / N Y

**Sample Description:**

Water Soil, Soil Water - 1

**Field Observations:**

Water Soil Soil Water Bender, Brown & Q.  
Sampled, GRB47191RT RBR2520555, Fractank 0760450  
Comp Roll 0760450

Grid/Area Composite Map:

QA Control # A3041134

factor

0760450

$$P(\Delta) = 0.7$$

40

RB47191RT

١١٥٠

CRAB - VOC

X  
X  
X  
X  
X

PRR 2520555

$$z \cdot 0 = 0$$

x  
x  
x  
x  
x

Comp Roll Off

collected  
composite  
samples

Sampler Signature:

94

10.20.2025

Supervisor Review/Date:

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

Erin

### Laboratory Certification

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



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

## LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3399 ICES02  
Client Name : ICE Service Group, Inc.  
Client Contact : Dennis D. Morgan, II  
Invoice Name : ICE Service Group, Inc.  
Invoice Contact : Dennis D. Morgan, II

Order Date : 10/20/2025 1:23:08 PM  
Project Name : NWIRP Northrup Grumman  
Receive Date Time : 10/20/2025 12:00:00 AM  
Purchase Order : 5:54 PM

Project Mgr :  
Report Type : NYS ASP A  
EDD Type : NYSDEC EDD V-4  
Hard Copy Date :  
Date Signoff :

| LAB ID   | CLIENT ID    | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST          | TEST GROUP | METHOD | FAX DATE | DUE DATES   |
|----------|--------------|--------|-------------|-------------|---------------|------------|--------|----------|-------------|
| Q3399-03 | COMP-ROLLOFF | Solid  | 10/20/2025  | 12:04       | VOC-TCLVOA-10 |            | 8260D  |          | 3 Bus. Days |

Relinquished By :

Date / Time : 10/21/25 0740

Received By :

Date / Time : 10/21/25 08:00

Storage Area : VOA Refridgerator Room