

DATA PACKAGE GENERAL CHEMISTRY

PROJECT NAME: FT MEADE TIPTON AIRFIELD PARCEL RI - PO 0111169

WESTON SOLUTIONS

1400 Weston Way

PO Box 2653

West Chester, PA - 19380

Phone No: 610-701-7400

ORDER ID: P5120

ATTENTION: Nathan Fretz





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Cover Page

Order ID: P5120

P5120-01

Project ID: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Client: Weston Solutions

Lab Sample Number

TAPIAL2-IDW-SOIL-120424-00-T2

Client Sample Number

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: 12/12/2024

NYDOH CERTIFICATION NO - 11376 NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

Weston Solutions

Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Project # N/A

Chemtech Project # P5120

Test Name: Reactive Cyanide, Reactive Sulfide

A. Number of Samples and Date of Receipt:

1 Solid sample was received on 12/05/2024.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Reactive Cyanide and Reactive Sulfide. This data package contains results for Reactive Cyanide, Reactive Sulfide.

C. Analytical Techniques:

The analysis of Reactive Cyanide was based on method 9012B and The analysis of Reactive Sulfide was based on method 9034.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

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

The Calibration met the requirements.

E. Additional Comments:

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

| Ciamaturna | | |
|------------|--|--|
| Signature | | |

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DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following "Results Qualifiers" are used:

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

Indicates the LCS did not meet the control limits requirements

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Sample Analysis Out Of Hold Time

ALLIANCE 284 Sheffield Street, Mountainside New Jersey 07092 NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

| CHEN | MTECH PROJECT NUMBER: P5120 | ATRIX: Solid | | |
|-------|--|----------------------|-----------|--------------|
| METI | HOD: 9012B,9034 | | | |
| 1. | Blank Contamination - If yes, list compounds and concentrations i | Na n each blank: | A NO ✓ |) YES |
| 2. | Matrix Spike Duplicate Recoveries Met Criteria | | | ✓ |
| | If not met, list those compounds and their recoveries which fall ou range. | tside the acceptable | | |
| | The Blank Spike met requirements for all samples. | | | |
| 3. | Sample Duplicate Analysis Met QC Criteria | | | \checkmark |
| | If not met, list those compounds and their recoveries which fall ou range. | tside the acceptable | | |
| 4. | Digestion Holding Time Met | | | ✓ |
| | If not met, list number of days exceeded for each sample: | | | |
| ADDIT | TIONAL COMMENTS: | | | |
| QA RE | VIEW | Date | | |

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P5120

| • | |
|--|--|
| | 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) | <u> </u> |
| 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 | <u>√</u> <u>√</u> <u>√</u> |
| Collect information for each project id from server. Were all requirements followed | <u> </u> |
| COVER PAGE: | |
| Do numbers of samples correspond to the number of samples in the Chain of Custody on login page | <u> </u> |
| Do lab numbers and client Ids on cover page agree with the Chain of Custody | <u>✓</u> |
| CHAIN OF CUSTODY: | |
| Do requested analyses on Chain of Custody agree with form I results | <u>✓</u> |
| Do requested analyses on Chain of Custody agree with the log-in page | \frac{\frac{\sqrt{\sq}}\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}} |
| Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody | <u>✓</u> |
| Were the samples received within hold time | <u>✓</u> |
| Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle | <u> </u> |
| ANALYTICAL: | |
| Was method requirement followed? | <u>✓</u> |
| Was client requirement followed? | <u>✓</u> |
| Does the case narrative summarize all QC failure? | <u>'</u> <u>'</u> <u>'</u> |
| All runlogs and manual integration are reviewed for requirements | <u> </u> |
| All manual calculations and /or hand notations verified | ✓ |

QA Review Signature: SOHIL JODHANI Date: 12/12/2024

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LAB CHRONICLE

OrderID: P5120 OrderDate: 12/5/2024 10:59:00 AM

Client: Weston Solutions Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Contact: Nathan Fretz Location: L51

| LabID | ClientID | Matrix | Test | Method | Sample Date | Prep Date | Anal Date | Received |
|----------|--------------------|--------|------------------|--------|-------------|-----------|-----------|----------|
| P5120-01 | TAPIAL2-IDW-SOIL-1 | SOIL | | | 12/04/24 | | | 12/05/24 |
| | 20424-00-T2 | | | | 13:00 | | | |
| | | | Reactive Cyanide | 9012B | | 12/05/24 | 12/05/24 | |
| | | | | | | | 14:43 | |
| | | | Reactive Sulfide | 9034 | | 12/06/24 | 12/06/24 | |
| | | | | | | | 12:48 | |

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SAMPLE DATA

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Fax: 908 789 8922

Report of Analysis

Client: Weston Solutions Date Collected: 12/04/24 13:00 Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 Date Received: 12/05/24 Client Sample ID: TAPIAL2-IDW-SOIL-120424-00-T2 SDG No.: P5120 Lab Sample ID: P5120-01 Matrix: **SOIL** % Solid: 79.8

| Parameter | Conc. | Qua. | DF | MDL | LOD | LOQ / CRQL | Units(Dry Weigh | t) Prep Date | Date Ana. | Ana Met. | 7 |
|------------------|-------|------|----|--------|-------|------------|-----------------|----------------|----------------|----------|---|
| Reactive Cyanide | 0.025 | U | 1 | 0.0088 | 0.025 | 0.050 | mg/Kg | 12/05/24 11:00 | 12/05/24 14:43 | 9012B | 8 |
| Reactive Sulfide | 3.19 | J | 1 | 0.19 | 5.00 | 10.0 | mg/Kg | 12/06/24 08:50 | 12/06/24 12:48 | 9034 | 0 |

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

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QC RESULT SUMMARY



Fax: 908 789 8922

Initial and Continuing Calibration Verification

Client: Weston Solutions SDG No.: P5120

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 RunNo.: LB133773

| Analyte | | Units | Result | True Value | % Recovery | Acceptance Window (%R) | Analysis Date |
|------------------------|-----------------|-------|--------|------------|---------------|---------------------------|------------------|
| Sample ID: Reactive | ICV1 Cyanide | mg/L | 0.097 | 0.099 | 98 | 85-115 | 12/05/2024 |
| Sample ID: Reactive | CCV1 Cyanide | mg/L | 0.24 | 0.25 | 96 | 90-110 | 12/05/2024 |
| Sample ID: Reactive | CCV2 Cyanide | mg/L | 0.23 | 0.25 | 92 | 90-110 | 12/05/2024 |
| Sample ID: Reactive | CCV3 Cyanide | mg/L | 0.24 | 0.25 | 96 | 90-110 | 12/05/2024 |

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Fax: 908 789 8922

Initial and Continuing Calibration Blank Summary

Client: Weston Solutions SDG No.: P5120

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 RunNo.: LB133773

| Analyte | | Units | Result | Acceptance Limits | Conc Qual | MDL | RDL | Analysis Date |
|------------------------|-----------------|-------|----------|----------------------|--------------|---------|-------|------------------|
| Sample ID: Reactive | ICB1 Cyanide | mg/L | < 0.0025 | 0.0025 | U | 0.00099 | 0.005 | 12/05/2024 |
| Sample ID: Reactive | CCB1 Cyanide | mg/L | < 0.0025 | 0.0025 | U | 0.00099 | 0.005 | 12/05/2024 |
| Sample ID: Reactive | CCB2 Cyanide | mg/L | < 0.0025 | 0.0025 | U | 0.00099 | 0.005 | 12/05/2024 |
| Sample ID: Reactive | CCB3 Cyanide | mg/L | < 0.0025 | 0.0025 | U | 0.00099 | 0.005 | 12/05/2024 |

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Fax: 908 789 8922

Preparation Blank Summary

Client: Weston Solutions SDG No.: P5120

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169

| Analyte | Units | Result | Acceptance Limits | Conc Qual | MDL | RDL | Analysis Date |
|-----------------------------------|-----------------|----------|----------------------|--------------|--------|------|------------------|
| Sample ID: PB165 Reactive Sulfide | 5379BL mg/Kg | < 5.0000 | 5.0000 | U | 0.186 | 10 | 12/06/2024 |
| Sample ID: PB165 Reactive Cyanide | 5406BL mg/Kg | < 0.0250 | 0.0250 | U | 0.0088 | 0.05 | 12/05/2024 |

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Duplicate Sample Summary

Client: Weston Solutions SDG No.: P5120

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 **Sample ID:** P5095-04

Client ID: MH-764DUP Percent Solids for Spike Sample: 100

| | | Acceptance | Sample | Conc. | Duplicate | Conc. | Dilution | RPD/ | 0 1 | Analysis | |
|------------------|-------|------------|--------|-----------|-----------|-----------|----------|------|------|------------|--|
| Analyte | Units | Limit | Result | Qualifier | Result | Qualifier | Factor | AD | Qual | Date | |
| Reactive Cyanide | mg/Kg | +/-20 | 0.0087 | U | 0.0087 | U | 1 | 0 | | 12/05/2024 | |

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Fax: 908 789 8922

Duplicate Sample Summary

Client: Weston Solutions SDG No.: P5120

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 **Sample ID:** P5100-04

Client ID: 3167DUP Percent Solids for Spike Sample: 100

| Analyte | Units | Acceptance Limit | Sample Result | Conc. Qualifier | Duplicate Result | Conc. Qualifier | Dilution Factor | RPD/ AD | Qual | Analysis Date | |
|------------------|-------|---------------------|------------------|--------------------|---------------------|--------------------|--------------------|------------|------|------------------|--|
| Reactive Sulfide | mg/Kg | +/-20 | 1.59 | J | 1.59 | J | 1 | 0 | | 12/06/2024 | |

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RAW DATA

1 2

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Test results

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

12/5/2024 14:49

Test: Total CN

| Sample Id | Result | Dil. 1 | + Response | Errors |
|---|--|--|---|--------|
| ICV1 ICB1 CCV1 CCB1 PB165406BL P5095-04 P5095-04 P5096-04 P5096-08 P5100-04 P5103-02 P5110-01 P5110-02 P5112-02 CCV2 CCB2 P5120-01 PB165407BL P5100-03 P5103-03DUP P5103-01 CCV3 CCB3 | 96.579 0.030 241.189 -0.461 -0.572 -0.775 -0.710 -0.770 -0.727 -0.231 -0.644 -0.640 -0.634 -1.146 234.814 -0.812 -0.588 -0.735 -0.922 -1.131 -0.592 239.695 -0.412 | 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 | 0.072 0.002 0.176 0.002 | |
| N Mean SD | 23 34.774 83.1997 | | | |

P5120-GENCHEM

CV%

239.26

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Aquakem v. 7.2AQ1

Results from time period:

Thu Dec 05 14:29:19 2024

Thu Dec 05 14:44:07 2024

| 1110 Dec 05 14. | 44.07 2 | 2024 | | | |
|-----------------|---------|---------------------|---------------|-----------------------|---------------------------|
| Sample Id | San | n/Ctr/c/ Test short | t r Test type | e Result Result unit | Result date and time Stat |
| 0.0PPBCN | Α | Total CN | Р | -0.6135 μg/l | 12/5/2024 12:39:42 |
| 5.0PPBCN | Α | Total CN | Р | 4.524 μg/l | 12/5/2024 12:39:43 |
| 10PPBCN | Α | Total CN | P | 9.5977 μg/l | 12/5/2024 12:39:44 |
| 50PPBCN | Α | Total CN | Р | 50.9497 μg/l | 12/5/2024 12:39:45 |
| 100PPBCN | Α | Total CN | Р | 100.7873 μg/l | 12/5/2024 12:39:46 |
| 250PPBCN | Α | Total CN | Р | 249.9889 μg/l | 12/5/2024 12:39:47 |
| 500PPBCN | Α | Total CN | Р | 499.766 μg/l | 12/5/2024 12:39:48 |
| ICV1 | S | Total CN | Р | 96.5794 μg/l | 12/5/2024 14:29:20 |
| ICB1 | S | Total CN | Р | 0.0295 µg/l | 12/5/2024 14:29:21 |
| CCV1 | S | Total CN | Р | 241.1891 μg/l | 12/5/2024 14:29:23 |
| CCB1 | S | Total CN | Р | -0.4615 µg/l | 12/5/2024 14:29:25 |
| PB165406BL | S | Total CN | Р | -0.5 72 5 μg/l | 12/5/2024 14:29:28 |
| P5095-04 | S | Total CN | Р | -0.7749 µg/l | 12/5/2024 14:29:29 |
| P5095-04DUP | S | Total CN | Р | -0.7097 μg/l | 12/5/2024 14:36:51 |
| P5096-04 | S | Total CN | Р | -0.7698 μg/l | 12/5/2024 14:36:52 |
| P5096-08 | S | Total CN | Р | -0.727 µg/l | 12/5/2024 14:36:53 |
| P5100-04 | S | Total CN | Р | -0.2306 µg/l | 12/5/2024 14:36:54 |
| P5103-02 | S | Total CN | P | -0.6438 µg/l | 12/5/2024 14:36:55 |
| P5110-01 | S | Total CN | Р | -0.6402 μg/l | 12/5/2024 14:36:56 |
| P5110-02 | S | Total CN | Р | -0.6338 µg/l | 12/5/2024 14:36:57 |
| P5112-02 | S | Total CN | Р | -1.1456 µg/l | 12/5/2024 14:36:58 |
| CCV2 | S | Total CN | Р | 234.8139 µg/l | 12/5/2024 14:37:01 |
| CCB2 | S | Total CN | Р | -0.8117 μg/l | 12/5/2024 14:43:58 |
| P5120-01 | S | Total CN | Р | -0.5884 μg/l | 12/5/2024 14:43:59 |
| PB165407BL | S | Total CN | Р | -0.7354 μg/l | 12/5/2024 14:44:00 |
| P5100-03 | S | Total CN | P | -0.9222 µg/l | 12/5/2024 14:44:01 |
| P5103-03DUP | S | Total CN | P | -1.1306 µg/l | 12/5/2024 14:44:02 |
| P5103-01 | S | Total CN | P | -0.5915 μg/l | 12/5/2024 14:44:03 |
| CCV3 | S | Total CN | P | 239.6954 µg/l | 12/5/2024 14:44:06 |
| CCB3 | S | Total CN | P | -0.4123 µg/l | 12/5/2024 14:44:07 |
| | | | | | |

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Calibration results

Aquakem 7.2AQ1

Page: 1

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

Reviewed by : NF

Instrument ID : Konelab

12/5/2024 12:40

Test Total CN

Accepted

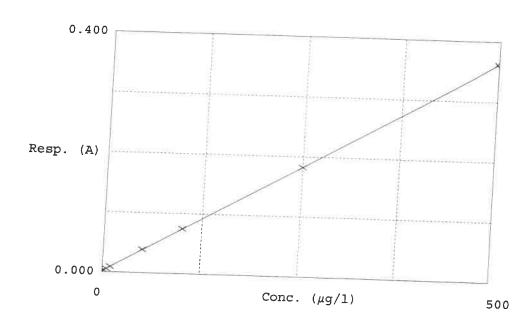
12/5/2024 12:40

Factor Bias

1388 0.002

Coeff. of det. 0.999989

Errors



| | Calibrator | Response | Calc. con. | Conc. | Re Errors | |
|---------------------------------|--|---|--|--|-----------------------------------|------------------|
| 1 2 3 4 5 6 7 | 0.0PPBCN 5.0PPBCN 10PPBCN 50PPBCN 100PPBCN 250PPBCN 500PPBCN | 0.002 0.005 0.009 0.039 0.075 0.182 0.362 | -0.6135 4.5240 9.5977 50.9497 100.7873 249.9889 499.7660 | 0.0000 5.0000 10.0000 50.0000 100.0000 250.0000 | -9.5 -9.0 1.9 0.5 0.0 | NF 12.05-2024 |

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Analysis Method: 9034

Parameter: Reactive Sulfide

Run Number: LB133786

ANALYST: rubina

SUPERVISOR REVIEW BY: Iwona

Constant: 16000

Normality1: 0.025

Normality2: 0.025

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

| Seq | Lab ID | True Value (mg/l) | DF | Initial Weight (g) | Final Volume (ml) | T1 (ml) | T2 Initial | T2 Final | T2 Diff. (ml) | T1 - T2 Diff (mL) | Value Corrected With Blank | Result (ppm) | Anal Date | Anal Time |
|-----|-------------|-------------------------|----|--------------------------|-------------------------|------------|---------------|-------------|---------------|----------------------|----------------------------------|--------------|--------------|--------------|
| 1 | PB165379BL | | 1 | 5.00 | 50 | 2.00 | 0.00 | 1.94 | 1.94 | 0.06 | 0.00 | 0.00 | 12/06/2024 | 12:30 |
| 2 | P5100-04 | | 1 | 5.02 | 50 | 2.00 | 0.00 | 1.92 | 1.92 | 0.08 | 0.02 | 1.59 | 12/06/2024 | 12:33 |
| 3 | P5100-04DUP | | 1 | 5.02 | 50 | 2.00 | 0.00 | 1.92 | 1.92 | 0.08 | 0.02 | 1.59 | 12/06/2024 | 12:36 |
| 4 | P5103-02 | | 1 | 5.07 | 50 | 2.00 | 0.00 | 1.88 | 1.88 | 0.12 | 0.06 | 4.73 | 12/06/2024 | 12:38 |
| 5 | P5110-01 | | 1 | 5.03 | 50 | 2.00 | 0.00 | 1.90 | 1.90 | 0.10 | 0.04 | 3.18 | 12/06/2024 | 12:40 |
| 6 | P5110-02 | | 1 | 5.03 | 50 | 2.00 | 0.00 | 1.92 | 1.92 | 0.08 | 0.02 | 1.59 | 12/06/2024 | 12:42 |
| 7 | P5112-02 | | 1 | 5.07 | 50 | 2.00 | 0.00 | 1.86 | 1.86 | 0.14 | 0.08 | 6.31 | 12/06/2024 | 12:45 |
| 8 | P5120-01 | | 1 | 5.01 | 50 | 2.00 | 0.00 | 1.90 | 1.90 | 0.10 | 0.04 | 3.19 | 12/06/2024 | 12:48 |
| 9 | P5133-02 | | 1 | 5.07 | 50 | 2.00 | 0.00 | 1.86 | 1.86 | 0.14 | 0.08 | 6.31 | 12/06/2024 | 12:50 |
| 10 | P5136-02 | | 1 | 5.05 | 50 | 2.00 | 0.00 | 1.88 | 1.88 | 0.12 | 0.06 | 4.75 | 12/06/2024 | 12:53 |

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



Soil/Sludge Reactive Sulfide Preparation Sheet

PB165379

SOP ID:

M9030B-Sulfide-12

SDG No:

N/A

Start Digest Date: 12/06/2024

Time: 08:50

Temp: N/A

Matrix:

SOIL WC

End Digest Date: 12/06/2024

Time: 10:20

Temp: N/A

Pippete ID:

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:

Weigh By:

pH Meter ID: N/A

Supervisor Signature:

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

| Chemical Used | ML/SAMPLE USED | Lot Number |
|-------------------|----------------|------------|
| 0.5M ZINC ACETATE | 5.0ML | WP108780 |
| FORMALDEHYDE | 2.0ML | W2725 |
| N/A | N/A | N/A |

Extraction Conformance/Non-Conformance Comments:

12/06/2024

N/A

| ate / 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) | рН | Sulfide | Oxidizing | Nitrate/ Nitrite | Comment | Prep |
|------------------|-----------------------------------|--------------------------|-------------------|-----|---------|-----------|---------------------|---------|------|
| P5100-04 | 3167 | 5.02 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| P5100-04DUP | 3167DUP | 5.02 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| P5103-02 | 423 | 5.07 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| P5110-01 | ELIZ-COMP-1 | 5.03 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| P5110-02 | ELIZ-COMP-2 | 5.03 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| 25112-02 | 10TH-ST-SOIL | 5.07 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| 25120-01 | TAPIAL2-IDW-SOIL-120424-0 0-T2 | 5.01 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| 25133-02 | MOO-24-00374 | 5.07 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| 5136-02 | COMP-1 | 5.05 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| B165379BL | PBS379 | 5.00 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |

WORKLIST(Hardcopy Internal Chain)

| | | | Date: 12-06-2024 08:15:16 e Collect Date Method | | 7000 7000/70 | 12/04/2024 9034 | 12/04/2024 9034 | 7000170 | 12/04/2024 9034 | 12/04/2024 9034 | | 12/03/2024 9034 | 11/27/2024 0034 | 9006 + 3076 | 12/05/2024 9034 | 12/05/2024 | 2/2024 |
|---|--------------------------------|----------------|---|--|------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|-----------------------------|-----------------|------------------|-----------------|-------------------|--------|
| | | Ž | <u>ā</u> | Location | L61 12# | | L51 12/(| 141 | | L41 12/0 | 151 | | L51 11/2 | | L61 12/0 | L61 12/0 | |
| | hain) | Distillation | | The latest and the la | PSEG03 | | PSEG03 | PSEG03 | | PSEG03 | TULL02 | | WEST04 | 8000 | 13EGU3 | PSEG03 | |
| | KLIST(Hardcopy Internal Chain) | Department : | Preservative | | Cool 4 deg C | Cool A dog | O fian t loop | Cool 4 deg C | 0.001/1000 | O Report | Cool 4 deg C | 0 200 7 | Cool 4 deg C | Cool 4 den C | | Cool 4 deg C | |
| | WORKLIST(H | 186 | Test | | Reactive Sulfide | Reactive Sulfide | | Reactive Sulfide | Reactive Sulfide | Doodler O. In . | reactive Sulfide | Reactive Sulfide | | Reactive Sulfide | Dooding O. In. | I VERCUNE SUILIDE | |
| | | WorkList ID : | Matrix | | pilos | Solid | Pilos | Dilloo | Solid | rilov. | - 1 | Solid | | Solid | Filos | | |
| | | rsul 1206 | Customer Sample | 3167 | 400 | 423 | ELIZ-COMP-1 | | ELIZ-COMP-2 | 10TH-ST-SOIL | | IAPIALZ-IDW-SOIL-120424-00. | MOO 24 00374 | 24-003/4 | COMP-1 | | |
| | | WorkList Name: | Sample | P5100-04 | P5103-02 | 70-0010 | P5110-01 | D5110_02 | 70.01 | P5112-02 | P5120-01 | | P5133-02 | | P5136-02 | | |
| P | 5120-0 | GENC | CHEM | | | | | | | | | | | | | | |

12/05/2024 9034

Date/Time 12/06/2024 Raw Sample Received by:

Raw Sample Relinquished by:
10
11
12
13

Page 1 of 1

Raw Sample Received by: Date/Time 12/06/2020

Raw Sample Relinquished by:



Soil/Sludge Reactive Cyanide Preparation Sheet

PB165406

Temp: N/A

10

Time: 11:00

| SOP | ID: | M9012B-Total, Amenable and Reactive Cyanide-2 | • |
|-----|-----|---|---|
| | | """ TOTAL TOTAL, ATTICIDADE ATTA REACTIVE CVANTOE-2 | w |

industrial industrial

SDG No : N/A Start Digest Date: 12/05/2024

Matrix: SOIL End Digest Date: 12/05/2024 Time: 12:30 Temp: N/A

Pippete 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:

Weigh By: NF pH Meter ID: N/A Supervisor Signature:

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

| Chemical Used | ML/SAMPLE USED | Lot Number |
|---------------|----------------|------------|
| 0.25N NaOH | N/A | WP108640 |
| 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 |
|-------------------|---|----------------------|
| 12 05.2024, 19:40 | NF(wc) | NFIWE |
| | Preparation Group | Analysis Group |



| Lab Sample ID | Client Sample ID | Initial Weight (g) | Final Vol (ml) | рН | Sulfide | Oxidizing | Nitrate/ Nitrite | Comment | Prep Pos |
|------------------|-----------------------------------|--------------------------|-------------------|-----|---------|-----------|---------------------|---------|-------------|
| P5095-04 | MH-764 | 5.05 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| P5095-04DUP | MH-764DUP | 5.03 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| P5096-04 | мн-в | 5.01 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| P5096-08 | мн-а | 5.04 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| P5100-04 | 3167 | 5.03 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| P5103-02 | 423 | 5.02 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| P5110-01 | ELIZ-COMP-1 | 5.03 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| 75110-02 | ELIZ-COMP-2 | 5.04 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| 5112-02 | 10TH-ST-SOIL | 5.03 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| 5120-01 | TAPIAL2-IDW-SOIL-120424-0 0-T2 | 5.01 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |
| B165406BL | PBS406 | 5.00 | 50 | N/A | N/A | N/A | N/A | N/A | N/A |

WORKLIST(Hardcopy Internal Chain)

| WorkList Name: | RCN S-12052024 | WorkList ID: | ID: 186008 | | : | | | |
|----------------|-----------------------------|--------------|-------------------|--------------|--------------|----------|-----------------------|-----|
| | | | | Department : | Distillation | Date: | : 12-05-2024 10:37:50 | .50 |
| Sample | Customer Sample | Matrix | Test | Preservative | Customer | ple | Collect Date Method | |
| P5095-04 | MH-764 | 7:100 | | | | Location | | |
| DEODO | | Diloc | Reactive Cyanide | Cool 4 deg C | DOECOS | 13. | | |
| 13090-04 | MH-B | Solid | Reactive Cvanida | | 25,000 | 111 | 12/04/2024 9012B | |
| P5096-08 | MH-A | 1 2 2 | aniin fo anna | Cool 4 deg C | PSEG03 | L51 | 12/04/2024 9012B | |
| DE400 04 | | Dilos | Reactive Cyanide | Cool 4 deg C | DOECON | - | 2100 1201 | |
| 40-00167 | 3167 | Solid | Donotino Original | | , or one | [5] | 12/04/2024 9012B | |
| P5103-02 | 423 | | cacara cyanade | Cool 4 deg C | PSEG03 | 2 | | I |
| | 453 | Solid | Reactive Cvanide | 0 | | 3 | 12/04/2024 9012B | |
| P5110-01 | ELIZ-COMP-1 | 3 | | Cool 4 deg C | PSEG03 | L51 | 12/04/2024 90125 | |
| DE440 00 | | Dilos | Reactive Cyanide | Cool 4 deg C | PSECOS | | 07100 170- | |
| 70-0116- | ELIZ-COMP-2 | Solid | Reactive Cyanida | | - 2003 | L41 | 12/04/2024 9012B | |
| P5112-02 | 10TH ST SO!! | | coorde cyalinge | Cool 4 deg C | PSEG03 | 141 | 12/04/2004 | |
| | JOS-18-112 | Solid | Reactive Cvanide | 0 - 20 7 | | | 12/04/2024 9012B | |
| P5120-01 | TAPIAL2-IDW-SOIL-120424-00. | Solid | | O ban t Joon | TULL02 | L51 | 12/05/2024 9012B | |
| | | | Reactive Cyanide | Cool 4 deg C | WEST04 | 151 | 44.00 | T |
| | | | | | | 3 | 11/2//2024 9012R | _ |

11/27/2024 9012B

Date/Time 12 05 2024 Raw Sample Received by:

Raw Sample Relinquished by:

Page 1 of 1

WorkList Name: RCN S-12052024

Date/Time 12.05 2024

Raw Sample Relinquished by: Raw Sample Received by:



Instrument ID:

KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB133773

| Review By | Nih | ıa | Review On | 12/6/2024 4:53:14 PM |
|----------------------------------|-----|--------------------------------|----------------------|----------------------|
| Supervise By Iwona | | Supervise On | 12/6/2024 4:54:06 PM | |
| SubDirectory LB133773 | | Test | Reactive Cyanide | |
| STD. NAME STD REF.# | | | | |
| ICAL Standard WP110951,WP110952, | | WP110953,WP110954,WP110955,WP1 | 10956,WP110957 | |
| ICV Standard | | WP110964 | | |
| CCV Standard | | WP110952 | | |
| ICSA Standard | | N/A | | |
| CRI Standard | | N/A | | |
| LCS Standard | | N/A | | |
| Chk Standard | | WP109068,WP110103, | WP110958 | |
| | | | | |

| Sr# | SampleId | ClientID | QcType | Date | Comment | Operator | Status |
|-----|-------------|------------|--------|----------------|---------|----------|--------|
| 1 | 0.0PPBCN | 0.0PPBCN | CAL1 | 12/05/24 12:39 | | Niha | ок |
| 2 | 5.0PPBCN | 5.0PPBCN | CAL2 | 12/05/24 12:39 | | Niha | ок |
| 3 | 10PPBCN | 10PPBCN | CAL3 | 12/05/24 12:39 | | Niha | ОК |
| 4 | 50PPBCN | 50PPBCN | CAL4 | 12/05/24 12:39 | | Niha | ОК |
| 5 | 100PPBCN | 100PPBCN | CAL5 | 12/05/24 12:39 | | Niha | ОК |
| 6 | 250PPBCN | 250PPBCN | CAL6 | 12/05/24 12:39 | | Niha | ок |
| 7 | 500PPBCN | 500PPBCN | CAL7 | 12/05/24 12:39 | | Niha | ок |
| 8 | ICV1 | ICV1 | ICV | 12/05/24 14:29 | | Niha | ОК |
| 9 | ICB1 | ICB1 | ICB | 12/05/24 14:29 | | Niha | ок |
| 10 | CCV1 | CCV1 | CCV | 12/05/24 14:29 | | Niha | ОК |
| 11 | CCB1 | CCB1 | ССВ | 12/05/24 14:29 | | Niha | ок |
| 12 | PB165406BL | PB165406BL | МВ | 12/05/24 14:29 | | Niha | ОК |
| 13 | P5095-04 | MH-764 | SAM | 12/05/24 14:29 | | Niha | ОК |
| 14 | P5095-04DUP | MH-764DUP | DUP | 12/05/24 14:36 | | Niha | ОК |
| 15 | P5096-04 | МН-В | SAM | 12/05/24 14:36 | | Niha | ок |
| 16 | P5096-08 | MH-A | SAM | 12/05/24 14:36 | | Niha | ок |
| 17 | P5100-04 | 3167 | SAM | 12/05/24 14:36 | | Niha | ок |
| 18 | P5103-02 | 423 | SAM | 12/05/24 14:36 | | Niha | ОК |

P5120-GENCHEM **28 of 60**

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Instrument ID:

KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB133773

| Review By | Supervise By Iwona SubDirectory LB133773 STD. NAME STD REF.# CAL Standard WP110951,WP110952, CV Standard WP110964 WP110952 | | Review On | 12/6/2024 4:53:14 PM |
|---------------|--|---------------------|--------------------------------|----------------------|
| Supervise By | lwc | ona | Supervise On | 12/6/2024 4:54:06 PM |
| SubDirectory | LB | 133773 | Test | Reactive Cyanide |
| STD. NAME | | STD REF.# | | |
| ICAL Standard | | WP110951,WP110952,V | WP110953,WP110954,WP110955,WP1 | 10956,WP110957 |
| ICV Standard | | WP110964 | | |
| CCV Standard | | WP110952 | | |
| ICSA Standard | | N/A | | |
| CRI Standard | | N/A | | |
| LCS Standard | | N/A | | |
| Chk Standard | | WP109068,WP110103, | WP110958 | |

| | | | | | - | | |
|----|-------------|--------------------|-----|----------------|---|------|----|
| 19 | P5110-01 | ELIZ-COMP-1 | SAM | 12/05/24 14:36 | | Niha | ОК |
| 20 | P5110-02 | ELIZ-COMP-2 | SAM | 12/05/24 14:36 | | Niha | ОК |
| 21 | P5112-02 | 10TH-ST-SOIL | SAM | 12/05/24 14:36 | | Niha | ОК |
| 22 | CCV2 | CCV2 | CCV | 12/05/24 14:37 | | Niha | ОК |
| 23 | CCB2 | CCB2 | ССВ | 12/05/24 14:43 | | Niha | ОК |
| 24 | P5120-01 | TAPIAL2-IDW-SOIL-1 | SAM | 12/05/24 14:43 | | Niha | ОК |
| 25 | PB165407BL | PB165407BL | МВ | 12/05/24 14:44 | | Niha | ОК |
| 26 | P5100-03 | 3154 | SAM | 12/05/24 14:44 | | Niha | ОК |
| 27 | P5100-03DUP | 3154DUP | DUP | 12/05/24 14:44 | | Niha | OK |
| 28 | P5103-01 | 422 | SAM | 12/05/24 14:44 | | Niha | OK |
| 29 | CCV3 | CCV3 | CCV | 12/05/24 14:44 | | Niha | OK |
| 30 | CCB3 | CCB3 | ССВ | 12/05/24 14:44 | | Niha | ОК |

P5120-GENCHEM 29 of 60

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Instrument ID:

TITRAMETRIC

Daily Analysis Runlog For Sequence/QCBatch ID # LB133786

| Review By | rub | ina | Review On | 12/6/2024 2:57:34 PM |
|---------------|-----|-------------------|--------------|----------------------|
| Supervise By | lwc | ona | Supervise On | 12/6/2024 4:12:10 PM |
| SubDirectory | LB | 133786 | Test | Reactive Sulfide |
| STD. NAME | | STD REF.# | | |
| ICAL Standard | | N/A | | |
| ICV Standard | | N/A | | |
| CCV Standard | | N/A | | |
| ICSA Standard | | N/A | | |
| CRI Standard | | N/A | | |
| LCS Standard | | N/A | | |
| Chk Standard | | W3105,W3114,W3149 | | |

| Sr# | SampleId | ClientID | QcType | Date | Comment | Operator | Status |
|-----|-------------|--------------------|--------|----------------|---------|----------|--------|
| 1 | PB165379BL | PB165379BL | МВ | 12/06/24 12:30 | | rubina | ок |
| 2 | P5100-04 | 3167 | SAM | 12/06/24 12:33 | | rubina | ОК |
| 3 | P5100-04DUP | 3167DUP | DUP | 12/06/24 12:36 | | rubina | ОК |
| 4 | P5103-02 | 423 | SAM | 12/06/24 12:38 | | rubina | ОК |
| 5 | P5110-01 | ELIZ-COMP-1 | SAM | 12/06/24 12:40 | | rubina | ОК |
| 6 | P5110-02 | ELIZ-COMP-2 | SAM | 12/06/24 12:42 | | rubina | ОК |
| 7 | P5112-02 | 10TH-ST-SOIL | SAM | 12/06/24 12:45 | | rubina | ОК |
| 8 | P5120-01 | TAPIAL2-IDW-SOIL-1 | SAM | 12/06/24 12:48 | | rubina | ОК |
| 9 | P5133-02 | MOO-24-00374 | SAM | 12/06/24 12:50 | | rubina | ОК |
| 10 | P5136-02 | COMP-1 | SAM | 12/06/24 12:53 | | rubina | ок |

P5120-GENCHEM 30 of 60

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Prep Standard - Chemical Standard Summary

Order ID: P5120

Test: Reactive Cyanide, Reactive Sulfide

Prepbatch ID: PB165379,PB165406,

Sequence ID/Qc Batch ID: LB133773,LB133786,

Standard ID:

WP108640, WP108780, WP109068, WP109549, WP110103, WP110950, WP110951, WP110952, WP110953, WP110954, WP110955, WP110956, WP110957, WP110958, WP110964, WP10956, WP110957, WP110958, WP110964, WP10956, WP110958, WP1109

Chemical ID:

E3657,M5929,W2668,W2725,W2882,W2926,W3019,W3105,W3112,W3114,W3138,W3139,W3149,W3154,

P5120-GENCHEM 31 of 60

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| Recipe ID | <u>NAME</u> | NO. | Prep Date | Expiration Date | Prepared By | <u>ScaleID</u> | <u>PipetteID</u> | Supervised By Iwona Zarych |
|--------------|-----------------------------------|------------|-------------|--------------------|----------------|----------------|------------------|----------------------------|
| 11 | , | WP108640 | 07/05/2024 | 01/05/2025 | Rubina Mughal | _ | | • |
| | solution 0.25 N | | | | | CALE_4 (WC | | 07/08/2024 |
| EDOM | 21 00000L of W3112 + 210 00000gra | m of F3657 | = Final Qua | ntity: 21 000 L | | SC-4) | | |

| -ROM | 21.00000L of W3112 | + 210.00000gram of E3657 | = Final Quantity: 21.000 L |
|------|--------------------|--------------------------|----------------------------|
| | | | |

| Recipe | | | | Expiration | Prepared | | | Supervised By |
|-----------|-------------------|------------|------------|-------------|---------------|----------------|------------------|---------------|
| <u>ID</u> | NAME | <u>NO.</u> | Prep Date | <u>Date</u> | <u>By</u> | <u>ScaleID</u> | <u>PipetteID</u> | Iwona Zarych |
| 160 | 0.5M ZINC ACETATE | WP108780 | 07/22/2024 | 12/08/2024 | Rubina Mughal | _ | _ | |
| | | | | | | CALE_5 (WC | IPETTE_3 | 07/23/2024 |

FROM 0.88900L of W3112 + 1.00000ml of M5929 + 110.00000gram of W2926 = Final Quantity: 1000.000 ml

P5120-GENCHEM 32 of 60



| Recipe | | | | Expiration | Prepared | | | Supervised By |
|-----------|----------------------------------|-------------|---------------|----------------|---------------|----------------|------------------|---------------|
| <u>ID</u> | NAME | <u>NO.</u> | Prep Date | <u>Date</u> | <u>By</u> | <u>ScaleID</u> | <u>PipetteID</u> | Iwona Zarych |
| 607 | PYRIDINE-BARBITURIC ACID | WP109068 | 08/06/2024 | 12/08/2024 | Niha Farheen | WETCHEM_S | None | • |
| | | | | | Shaik | CALE_5 (WC | | 08/07/2024 |
| FROM | 145.00000ml of W3112 + 15.00000g | ram of W288 | 32 + 15.00000 |)ml of M5929 + | 75.00000ml of | W3019 = Final | Quantity: 250 | .000 |

ROM 145.00000ml of W3112 + 15.00000gram of W2882 + 15.00000ml of M5929 + 75.00000ml of W3019 = Final Quantity: 250.000 ml

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|--------------|-------------------------------------|----------|------------|--------------------|-----------------------|---------|--------------------|----------------------------|
| 3371 | Cyanide LCS Spike Solution, 5PPM | WP109549 | 09/06/2024 | | Niha Farheen Shaik | None | WETCHEM_F IPETTE_3 | lwona Zarych 09/06/2024 |

FROM 1.00000ml of W3138 + 199.00000ml of WP108640 = Final Quantity: 200.000 ml

P5120-GENCHEM 33 of 60



| Recipe ID | <u>NAME</u> | NO. | Prep Date | Expiration Date | Prepared By | <u>ScaleID</u> | <u>PipetteID</u> | Supervised By Iwona Zarych |
|--------------|----------------------------------|------------|---------------|--------------------|----------------|----------------|------------------|----------------------------|
| 539 | CN BUFFER | WP110103 | 10/08/2024 | 04/08/2025 | Rubina Mughal | _ | None | |
| | | | | | | CALE_5 (WC | | 10/08/2024 |
| FROM | 138.00000gram of W2668 + 862.000 | 00ml of W3 | 112 = Final Q | uantity: 1000.0 | 000 ml | SC-5) | | |

| Recipe ID | NAME. | NO. | Prep Date | Expiration Date | Prepared By | <u>ScaleID</u> | <u>PipettelD</u> | Supervised By Iwona Zarych |
|--------------|---|-----------------|------------|--------------------|-----------------------|----------------|-------------------------------|----------------------------|
| 3456 | Cyanide Intermediate Working Std, 5PPM | <u>WP110950</u> | 12/05/2024 | 12/06/2024 | Niha Farheen Shaik | None | WETCHEM_F IPETTE_3 (WC) | 12/06/2024 |

FROM 0.25000ml of W3154 + 49.75000ml of WP108640 = Final Quantity: 50.000 ml

P5120-GENCHEM 34 of 60



| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | <u>ScaleID</u> | <u>PipetteID</u> | Supervised By Iwona Zarych |
|--------------|-----------------------------|----------|------------|--------------------|----------------|----------------|------------------|----------------------------|
| 4 | Calibation standard 500 ppb | WP110951 | 12/05/2024 | 12/06/2024 | Niha Farheen | None | None | IWONG Zaryon |
| | | | | | Shaik | | | 12/06/2024 |

| FROM 45.00000ml of WP108640 + 5.00000ml of WP110950 = Final Quantity: 50.00 | 0 ml |
|--|------|
|--|------|

| Recipe ID | <u>NAME</u> | <u>NO.</u> | Prep Date | Expiration Date | Prepared By | <u>ScaleID</u> | <u>PipettelD</u> | Supervised By Iwona Zarvch |
|--------------|-------------------------------------|-----------------|------------|--------------------|-----------------------|----------------|-------------------------------|----------------------------|
| 3761 | Calibration-CCV CN Standard 250 ppb | <u>WP110952</u> | 12/05/2024 | 12/06/2024 | Niha Farheen Shaik | None | WETCHEM_F IPETTE_3 (WC) | , . |

FROM 2.50000ml of WP110950 + 47.50000ml of WP108640 = Final Quantity: 50.000 ml

P5120-GENCHEM **35 of 60**

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| Recipe ID 6 | NAME Calibration Standard 100 ppb | <u>NO.</u> WP110953 | Prep Date 12/05/2024 | Expiration Date 12/06/2024 | Prepared By Niha Farheen Shaik | ScaleID None | PipetteID WETCHEM_F IPETTE_3 | Supervised By Iwona Zarych |
|-------------------|-----------------------------------|------------------------|-------------------------|----------------------------|--------------------------------|-----------------|------------------------------|----------------------------|
| FROM | 1.00000ml of WP110950 + 49.00000 | ml of WP10 | 8640 = Final | Quantity: 50.00 | 00 ml | | (WC) | |

| 7 Calibration Standard 50 ppb WP110954 12/05/2024 12/06/2024 Niha Farheen None WETCHEM_P | Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | <u>ScaleID</u> | <u>PipetteID</u> | Supervised By Iwona Zarych |
|--|--------------|-----------------------------|-----------------|------------|--------------------|-----------------------|----------------|------------------|----------------------------|
| Sital IFETTE 12/06 | 7 | Calibration Standard 50 ppb | <u>WP110954</u> | 12/05/2024 | 12/06/2024 | Niha Farheen Shaik | None | IPETTE_3 | 12/06/2024 |

FROM 0.50000ml of WP110950 + 49.50000ml of WP108640 = Final Quantity: 50.000 ml

P5120-GENCHEM 36 of 60



Wet Chemistry STANDARD PREPARATION LOG

| Recipe ID | <u>NAME</u> | NO. | Prep Date | Expiration Date | Prepared By | <u>ScaleID</u> | <u>PipetteID</u> | Supervised By Iwona Zarych |
|--------------|----------------------------------|-----------------|--------------|--------------------|-----------------------|----------------|-----------------------|----------------------------|
| 8 | Calibration Standard 10 ppb | <u>WP110955</u> | 12/05/2024 | 12/06/2024 | Niha Farheen Shaik | None | WETCHEM_F IPETTE_3 | 12/06/2024 |
| FROM | 1.00000ml of WP110951 + 49.00000 | ml of WP10 | 8640 = Final | Quantity: 50.0 | 00 ml | | (WC) | |

| Recipe ID | <u>NAME</u> | <u>NO.</u> | Prep Date | Expiration Date | Prepared By | <u>ScaleID</u> | <u>PipettelD</u> | Supervised By Iwona Zarych |
|--------------|----------------------------|-----------------|------------|--------------------|-----------------------|----------------|-----------------------|----------------------------|
| 9 | Calibration Standard 5 ppb | <u>WP110956</u> | 12/05/2024 | 12/06/2024 | Niha Farheen Shaik | None | WETCHEM_F IPETTE_3 | 12/06/2024 |

FROM 0.50000ml of WP110951 + 49.50000ml of WP108640 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

| Recipe ID 167 | NAME 0 ppb CN calibration std | <u>NO.</u> WP110957 | Prep Date 12/05/2024 | <u> </u> | Prepared By Niha Farheen Shaik | <u>ScaleID</u> None | PipetteID None | Supervised By Iwona Zarych 12/06/2024 |
|---------------------|----------------------------------|------------------------|-------------------------|----------|---|------------------------|-------------------|---------------------------------------|
| FROM | 50.00000ml of WP108640 = Final Q | uantity: 50.0 | 000 ml | | | | | |

| Recipe ID | <u>NAME</u> | <u>NO.</u> | Prep Date | Expiration Date | Prepared By | <u>ScaleID</u> | <u>PipettelD</u> | Supervised By Iwona Zarych |
|--------------|-------------------------------|------------|------------|--------------------|-----------------------|-------------------------|------------------|----------------------------|
| 1582 | Chloramine T solution, 0.014M | WP110958 | 12/05/2024 | 12/06/2024 | Niha Farheen Shaik | WETCHEM_S CALE_5 (WC | None | 12/06/2024 |

FROM 0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 ml

P5120-GENCHEM 38 of 60

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Wet Chemistry STANDARD PREPARATION LOG

| Recipe ID 2168 | NAME RCN ICV STD, 100 PPB | NO. WP110964 | Prep Date 12/05/2024 | Expiration Date 12/06/2024 | Prepared By Niha Farheen Shaik | <u>ScaleID</u> None | PipetteID None | Supervised By Iwona Zarych 12/06/2024 |
|----------------------|----------------------------------|------------------------|-------------------------|----------------------------|--------------------------------|------------------------|-------------------|---------------------------------------|
| FROM | 1.00000ml of WP109549 + 49.00000 | ml of WP10 | 8640 = Final | Quantity: 50.00 | 00 ml | | | |

P5120-GENCHEM **39 of 60**



CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------------|---|--------------|--------------------|----------------------------|--------------------------------|-------------------|
| PCI Scientific Supply, Inc. | PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4 | 23B1556310 | 12/31/2025 | 12/04/2023 / Rajesh | 12/01/2023 / Rajesh | E3657 |
| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
| Seidler Chemical | BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L) | 22G2862015 | 12/08/2024 | 06/24/2024 / Al-Terek | 06/07/2024 / Al-Terek | M5929 |
| 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, CRYS, ACS, 2.5 KG | 0000225799 | 12/03/2025 | 04/05/2021 / Alexander | 02/10/2020 / apatel | W2668 |
| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
| PCI Scientific Supply, Inc. | EMD-FX0410-5 / FORMALDEHYDE SOLUTION 450ML | 60045 | 06/22/2025 | 08/19/2024 / Iwona | 06/22/2020 / apatel | W2725 |
| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
| PCI Scientific Supply, Inc. | EM-BX0035-3 / Barbituric Acid, 100 gms | 1.00132.0100 | 04/30/2025 | 12/07/2021 / apatel | 11/30/2021 / apatel | W2882 |
| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
| PCI Scientific Supply, Inc. | J4296-1 / ZINC ACETATE,DIHYD,CRYS,AC S,500G | 383058 | 07/05/2027 | 07/05/2022 / ketankumar | 07/05/2022 / ketankumar | W2926 |

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CHEMICAL RECEIPT LOG BOOK

| 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 / Iwona | 04/03/2023 / Iwona | W3019 |
| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
| PCI Scientific Supply, Inc. | AL69870-8 / SODIUM THIOSULFATE,0.025N,4LIT RE | 4403S13 | 09/30/2025 | 04/22/2024 / Iwona | 04/22/2024 / Iwona | W3105 |
| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
| Seidler Chemical | DIW / DI Water | Daily Lab-Certified | 07/03/2029 | 07/03/2024 / Iwona | 07/03/2024 / Iwona | W3112 |
| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
| PCI Scientific Supply, Inc. | AL35830-4 / IODINE SOLUTION .025N 1L | 2405D89 | 05/31/2025 | 07/10/2024 / Iwona | 07/10/2024 / Iwona | W3114 |
| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / | Chemtech Lot # |
| PCI Scientific Supply, Inc. | LC135457 / Cyanide Standard, 1000 PPM, Second Source | 44080060 | 01/30/2025 | 09/06/2024 / Iwona | 08/28/2024 / Iwona | W3138 |
| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
| PCI Scientific Supply, Inc. | JTE494-6 / CHLORAMINE-T BAKER 250GM | 10239484 | 09/09/2029 | 09/09/2024 / Iwona | 09/09/2024 / Iwona | W3139 |

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CHEMICAL RECEIPT LOG BOOK

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

| 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 | LOT | 06/30/2025 | 12/02/2024 / Iwona | 12/02/2024 / Iwona | W3154 |

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W3019 lec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Product Name:

Certificate of Analysis

Pyridine - anhydrous, 99.8%

Product Number:

270970

Batch Number:

SHBQ2113

Brand:

SIAL

CAS Number:

110-86-1

MDL Number:

MFCD00011732

Formula:

C5H5N

Formula Weight:

79.10 g/mol

Quality Release Date:

15 DEC 2022



| Test | Specification | Result |
|-------------------------|-----------------------|------------|
| Appearance (Color) | Colorless | Colorless |
| Appearance (Form) | Liquid | Liquid |
| Infrared Spectrum | Conforms to Structure | Conforms |
| Purity (GC) | > 99.75 % | 99.99 % |
| Nater (by Karl Fischer) | _ < 0.003 % | 0.002 % |
| Residue on Evaporation | _ < 0.0005 % | < 0.0001 % |

Larry Coers, Director **Quality Control**

Sheboygan Falls, WI US

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





Date of Release: 2/26/2020

Name: Formaldehyde Solution

GR ACS

Meets ACS Specifications

Item No: FX0410 all size codes

Lot / Batch No: 60045

Country of Origin: USA

| Characteristic | Re | quirement | Results | Units |
|------------------------|------|-----------|-------------|-------|
| | Min. | Max. | | |
| Assay | 36.5 | 38.0 | 36.71 | % |
| Chloride (CI) | | 5 | <5 | ppm |
| Color (APHA) | | 10 | <10 | |
| Form | | | Passes test | |
| Heavy metals (as Pb) | | 5 | <5 | ppm |
| Iron (Fe) | | 5 | 0.6 | ppm |
| Residue after ignition | | 0.005 | <0.0050 | % |
| Sulfate (SO4) | | 0.002 | <0.0020 | % |
| Titrable acid | | 0.006 | <0.0060 | meq/g |

Heather Sinn,

Quality Control Manager

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

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

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

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12/14/2022

12/31/2025

Sodium Hydroxide (Pellets)

Material:

0583

Grade:

ACS GRADE

Batch Number:

23B1556310

Chemical Formula:

NaOH

Molecular Weight:

CAS#:

1310-73-2

Appearance:

Storage:

Manufacture Date:

Expiration Date:

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 |
| ^D urity | >= 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.

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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.

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

02/15/2023

Page 1 of 2



1.00132.0000 Barbituric acid for analysis EMSURE® N020065932

| | Spec. Values | 5 | Batch Values | |
|--|--------------|-----|--------------|-----|
| | | | | |
| Assay (acidimetric) | ≥ 99 | % | 99.6 | % |
| Identity (IR-spectrum) | passes test | | passes test | |
| Chloride (CI) | ≤ 40 | ppm | ≤ 40 | ppm |
| Heavy metals (as Pb) | ≤ 50 | ppm | ≤ 50 | ppm |
| Fe (Iron) | ≤ 10 | ppm | ≤ 10 | ppm |
| Sulfated ash | ≤ 0.1 | % | ≤ 0.1 | % |
| Loss on Drying (105 °C) | ≤ 0.1 | % | ≤ 0.1 | % |
| Suitability as reagent (for cyanide determination) | passes test | | passes test | |

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

Ioannis Chartomatsidis

Responsible laboratory manager quality control

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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 (NaH2PO4 · H2O) | 98.0 - 102.0 % | 99.5 |
| pH of 5% Solution at 25°C | 4.1 - 4.5 | 4.3 |
| Insoluble Matter | <= 0.01 % | < 0.01 |
| Chloride (CI) | <= 5 ppm | < 5 |
| ACS – Sulfate (SO ₄) | <= 0.003 % | < 0.003 |
| Calcium (Ca) | <= 0.005 % | < 0.005 |
| Potassium (K) | <= 0.01 % | < 0.01 |
| Heavy Metals (as Pb) | <= 0.001 % | < 0.001 |
| Trace Impurities – Iron (Fe) | <= 0.001 % | < 0.001 |

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

Country of Origin: IN

Packaging Site: Paris Mfg Ctr & DC



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3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA:

techserv@sial.com

Outside USA: eurtechserv@sial.com

Product Name:

Certificate of Analysis

Zinc acetate dihydrate - ACS reagent, ≥98%

Product Number:

383058

Batch Number:

MKCQ9159

Brand:

SIGALD

CAS Number:

5970-45-6

MDL Number:

MFCD00066961

Formula:

04110047- 01100

romula.

Test

C4H6O4Zn · 2H2O

Formula Weight:

219.51 g/mol

Quality Release Date:

06 JAN 2022

0 H₃C O]₂ Zn²· · 2H₂O

Specification Result

| | 99 | |
|------------------------|-------------------------------|--------------------|
| Appearance (Color) | White | White |
| Appearance (Form) | Powder or Crystal or Chunk(s) | Powder |
| Infrared Spectrum | Conforms to Structure | Conforms |
| Insoluble Matter | < 0.005 % | 0.003 % |
| Calcium (Ca) | < 0.005 % | 0.003 % |
| Chloride (Cl) | < 5 ppm | < 5 ppm |
| Iron (Fe) | < 5 ppm | < 5 ppm |
| Potassium (K) | < 0.01 % | 0.00 % |
| Magnesium (Mg) | < 0.005 % | 0.003 % |
| Sodium (Na) | < 0.05 % | 0.03 % |
| Lead (Pb) | < 0.002 % | < 0.001 % |
| pH | 6.0 - 7.0 | 6.1 |
| Sulfate (SO4) | < 0.005 % | < 0.005 % |
| Complexometric EDTA | 98.0 - 101.0 % | 100.3 % |
| Meets ACS Requirements | Meets Requirements | Meets Requirements |

Larry Coers, Director Quality Control Milwaukee, WI US

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

W3105 Received on 4/22/24 by IZ

1490 Lammers Pike Batesville, IN 47006 http://www.riccachemical.com 1-888-GO-RICCA

customerservice@riccachemical.com

Certificate of Analysis

Sodium Thiosulfate, 0.0250 Normal (N/40)

Lot Number: 4403S13 Product Number: 7900

Manufacture Date: MAR 29, 2024

Expiration Date: SEP 2025

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

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

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

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

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

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

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

Version: 1.3 Lot Number: 4403S13 Product Number: 7900 Page 1 of 2

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Hand Brandon

Paul Brandon (03/29/2024)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials $^{\rm --}$ Contents of Certificates and Labels."

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

Version: 1.3 Lot Number: 4403S13 Product Number: 7900 Page 2 of 2

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1841 Broad Street Pocomoke City, MD 21851 http://www.riccachemical.com 1-888-GO-RICCA

customerservice@riccachemical.com

Certificate of Analysis

Iodine (Iodine-Iodide), 0.0250 Normal (N/40), $1 \text{ mL} = 0.4008 \text{ mg S}^2$

Lot Number: 2405D89 Product Number: 3975

Manufacture Date: MAY 10, 2024

Expiration Date: MAY 2025

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

| | Test | Specification | Result | NIST SRM# |
|---|---------------------------------------|---|--|-----------|
| Ī | Appearance | Dark brown liquid | Passed | |
| | Assay (vs. Sodium Thiosulfate/Starch) | $0.02498 \text{-} 0.02502 \text{ N} \text{ at } 20^{\circ}\text{C}$ | $0.02502~\mathrm{N}$ at $20^{\circ}\mathrm{C}$ | 136 |

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

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

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 3975-1 | 4 L amber glass | 12 months |
| 3975-16 | 500 mL amber glass | 12 months |
| 3975-32 | 1 L amber glass | 12 months |

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

Jose Pena (05/10/2024) Operations Manager

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Version: 1.3 Lot Number: 2405D89 Product Number: 3975 Page 1 of 1

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Part of TCP Analytical Group

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

Certificate of Analysis

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

Product Code: LC13545 Manufacture Date: August 01, 2024

Lot Number: 44080060 Expiration Date: January 30, 2025

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

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

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

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

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

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

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

Michael Montelsons

P5120-GENCHEM 52 of 60

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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

Order our products online thermofisher.com/chemicals

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1490 Lammers Pike Batesville, IN 47006 http://www.riccachemical.com 1-888-GO-RICCA

customerservice@riccachemical.com

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 | Passed |
| | (Iodine present) | |

| Specification | Reference |
|---------------------------|---------------------|
| Starch Solution | APHA (4500-S2- F) |
| Starch Indicator Solution | APHA (4500-C1 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-C1 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)

Version: 1.3 Lot Number: 4408P62 Product Number: 8000 Page 1 of 2

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Paul Brandon (08/28/2024)

Production Manager

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Version: 1.3 Lot Number: 4408P62 Product Number: 8000 Page 2 of 2

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PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh

Date: 12/6/2024

OVENTEMP IN Celsius(°C): 107 OVENTEMP OUT Celsius(°C): 103

Time IN: 17:00 Time OUT: 08:15

In Date: 12/05/2024 Out Date: 12/06/2024

Weight Check 1.0g: 1.00 Weight Check 1.0g: 1.00 Weight Check 10g: 10.00 Weight Check 10g: 10.00 OvenID: M OVEN#1 BalanceID: M SC-4

Thermometer ID: % SOLID- OVEN

QC:LB133767

| 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 |
|----------|-----------------------------------|-----------|----------------------|-----------------|------------------------------|--------------------------------|------------|-------------|
| P5112-01 | 10TH-ST-SOIL | 1 | 1.15 | 8.38 | 9.53 | 8.81 | 91.4 | |
| P5113-01 | FES-SB406-4345 | 2 | 1.15 | 8.81 | 9.96 | 8.94 | 88.4 | |
| P5113-02 | FES-SB406-7375 | 3 | 1.15 | 8.61 | 9.76 | 7.93 | 78.7 | |
| P5117-01 | TAPIAL3-SB04I-10-12032 4-00-T1 | 4 | 1.15 | 8.59 | 9.74 | 9.37 | 95.7 | |
| P5117-02 | TAPIAL2-IDW-SOIL-12042 4-00-T2 | 5 | 1.15 | 8.38 | 9.53 | 7.84 | 79.8 | |
| P5120-01 | TAPIAL2-IDW-SOIL-12042 4-00-T2 | 6 | 1.15 | 8.38 | 9.53 | 7.84 | 79.8 | |
| P5133-01 | MOO-24-00374 | 9 | 1.15 | 8.35 | 9.5 | 9.14 | 95.7 | |
| P5134-01 | MOO-24-00373 | 10 | 1.00 | 1.00 | 2.00 | 2.00 | 100.0 | debris |
| P5135-01 | LAW-23-00193 | 11 | 1.16 | 8.44 | 9.6 | 9.05 | 93.5 | |
| P5136-01 | COMP-1 | 12 | 1.16 | 8.49 | 9.65 | 7.26 | 71.8 | |
| P5137-01 | LAW-OILY-STONES | 13 | 1.00 | 1.00 | 2.00 | 2.00 | 100.0 | oily stone |
| P5137-02 | LAW-OILY-STONES-E2 | 14 | 1.00 | 1.00 | 2.00 | 2.00 | 100.0 | oily stone |
| P5144-01 | 60400 | 15 | 1.00 | 1.00 | 2.00 | 2.00 | 100.0 | wipe sample |
| P5147-01 | EX-8-TPH-1 | 7 | 1.15 | 8.82 | 9.97 | 8.29 | 81.0 | |
| P5147-02 | EX-8-TPH-2 | 8 | 1.15 | 8.76 | 9.91 | 8.1 | 79.3 | |

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

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WorkList ID: 185988

WORKLIST(Hardcopy Internal Chain)

49+5C) CM

| ΕN | . District Maille | /« I - I ZU5/24 | WorkList ID: | 185988 | Department : | Wet-Chemistry | 1 | | | |
|-----|-------------------|-----------------------------|--------------|--------------------|--------------|---------------|-----------------------------------|---------------------|--|--|
| CH | | | | | | rec chemisus | Õ | Date: 12-05-2(| 12-05-2024 08:21:57 | |
| HEM | Sample | Customer Sample | Matrix | Test | Preservative | Customer | Raw Sample Storage Location | Collect Date Method | Method | |
| | P5112-01 | 10TH ST SOII | Ш | | 1 - 2 | | | | | |
| | | JOS-15-101 | Solid | Percent Solids | Cool 4 den C | | | | | |
| | P5113-01 | FES-SB406-4345 | Solid | Darcont Colida | o fient iono | I ULL02 | L51 | 12/05/2024 | Chemtech -SO | |
| | P5113-02 | | | cicelli Solids | Cool 4 deg C | TETR06 | L31 | 12/04/2024 | o do | |
| | 20-01-0-0 | res-58406-/3/5 | Solid | Percent Solids | Cool 4 dog C | | | +20211-0121 | Oc- Damerin | |
| | P5117-01 | TAPIAL3-SB04I-10-120324-00- | Solid | Percont Colida | o figure | IETR06 | L31 | 12/04/2024 | Chemtech -SO | |
| | P5117-02 | TAPIAI 2-INO WICH 2000 | 1 | spilos iliana | Cool 4 deg C | WEST04 | L41 | 12/05/2024 | Chemtech -SO | |
| | | 120424-00. | Solid | Percent Solids | Cool 4 den C | MATOTAL | | | 00-10-10-10-10-10-10-10-10-10-10-10-10-1 | |
| | P5120-01 | TAPIAL2-IDW-SOIL-120424-00. | Solid | Percent Colles | | WES104 | L41 | 12/05/2024 | Chemtech -SO | |
| | D5133.01 | | | SDIIOS III | Cool 4 deg C | WEST04 | L51 | 11/27/200A | 1 | |
| - | 10-50-0 | MOO-24-00374 | Solid | Percent Solids | Cool 4 dea C | | | 11/2/12/024 | Chemtech -SO | |
| | P5134-01 | MOO-24-00373 | Pilo | | o figure 1 | PSEG03 | L61 | 12/05/2024 | Chemtech -SO | |
| | D649E 04 | | 1 | Percent Solids | Cool 4 deg C | PSEG03 | 161 | 12/05/2024 | | |
| | 10-00101 | LAW-23-00193 | Solid | Percent Solids | Cool 4 dog C | | | 4702/2021 | Chemtech -SO | |
| | P5136-01 | COMP-1 | hilos | October 6 - 11 - 1 | O fight tooo | PSEG03 | L51 | 12/05/2024 | Chemtech -SO | |
| | P5137-01 | ANA OLIVOTA VIIO MAIL | | spilos i | Cool 4 deg C | PSEG03 | L61 | 12/05/2024 | Chemtoch CO | |
| | | CAVE-OILT-STONES | Solid | Percent Solids | Cool 4 dea C | 000100 | | | October 1900 | |
| | P5137-02 | LAW-OILY-STONES-E2 | Solid | Percent Colida | | PSEG03 | L61 | 12/05/2024 | Chemtech -SO | |
| | DE147 01 | | 1 | SOURS | Cool 4 deg C | PSEG03 | L61 | 12/05/2024 | | |
| | 10-14-10-1 | EX-8-TPH-1 | Solid | Percent Solids | Cool 4 dea C | | | 12/02/2021 | Criemtech -SO | |
| | P5147-02 | EX-8-TPH-2 | Files | | 0 600 | ENIAUS | L41 | 12/05/2024 | Chemtech -SO | |
| I | | | | rercent Solids | Cool 4 deg C | ENTA05 | L41 | 12/05/2024 | 12/05/2024 Chemtach - CO | |
| | | | | | | | | | | |

Date/Time)2) 05|29

01:27

Raw Sample Received by:

Raw Sample Relinquished by:

Page 1 of 1

Raw Sample Relinquished by: RJ Cに代し(ab)

Raw Sample Received by: 78 (49)

Date/Time 12/05/24 15:40

57 of 60

WorkList Name: %1-120524



SHIPPING DOCUMENTS

1/

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| Weston CQC ID |
|-------------------|
| Weston_20241204_M |

Chain of Custody Record/Lab Work Request

Page 1 of 1



| Client: | Weston Solutions, Inc. | | | | | | | | | |
|------------------|------------------------|--------------|--------------|--|--|--|--|--|--|--|
| Project Manager: | David Sembrot | | | | | | | | | |
| Street Address: | 1400 Weston Way | City: | West Chester | | | | | | | |
| Phone: | 610-314-5456 | ST, ZIP: | PA, 19038 | | | | | | | |
| e-mail: | david.sembrot@v | vestonsol | utions.com | | | | | | | |
| Sampled By: | Cheyenn | e Harringtor |) | | | | | | | |

| Lab Use Only | | |
|---|---|---|
| Temperature of cooler when received (°C) | | |
| COC Tape was present and unbroken on outer package? | Υ | N |
| Samples received in good condition? | Y | N |
| Labels indicate properly preserved? | Υ | N |
| Received within holding times? | Y | N |
| Discrepancies between sample labels and COC record? | Y | N |

| | | | | | | | | | - Stollouting |
|---------------------|-----------------|-----------------------|---|-------------|--|---------------|-------|-------|------------------|
| Project Name: | Fort | Meade | RI | Project F | OC: | Nathan | Fretz | A | Matrix Codes |
| PO Number | 0 | 111169 | | Phone |): | 484-524- | -5665 | SB- | Soil |
| W.Q.#: | | | | POC e-mail: | POC e-mail: nathan.fretz@westonsolutions | | | SE - | Sediment |
| Lab: | CHEMTECH | H-ALS I | Viddletown | Lab PO | C: | Jordan H | edvat | SO- | Solid |
| TAT (days): | | 7 | | Lab Pho | Lab Phone: 908-72 | | 3144 | SL- | Sludge |
| Lab Address: | | 2 | 84 Sheffield St | | GW- | - Groundwater | | | |
| | 346 | 846 | | | | | W- | Water | |
| Analyses Requested: | | (SW-846 EPA 9034) | SW-846 , EPA | | | | | 0- | Oil |
| | | | Cyanide ar 7.3.3.2 9012B) | | | | | Α- | Air |
| | | m N- | Reactive Cyanide SW-8 Chapter 7.3.3.2, EPA 9012B) | | | | | DS- | Drum Solids |
| | | Reactive Chapter 7 | Chap | | | | | DL - | Drum Liquids |
| Container Type: Gla | | | 8 | | | | | L- | EP/TCLP Leachate |
| | | | Glass | | | | | WI - | Wipe |
| | Container Size: | 8 oz 8 oz | | | | | | X | Other |
| | Preservative: | Ice to 0-6 | Ice to 0-6 dec C | | | | | F- | Fish |
| | | | | | | | | | |

| _ | | | | | | | Freservauve. | 0-6 | dec C | 1 | 1 | | [_ | !_ | | F - Fish |
|----|-------------------------------|-----|--------|--------|--------|----------------|----------------|-----|-------|---|---|--------|----|--------|-----|-----------------------------|
| # | Sample ID | G/C | Matrix | # Cont | MS/MSD | Date Collected | Time Collected | | | | | | | | Spe | ecial instructions/Comments |
| 1 | TAPIAL2-IDW-Soil-120424-00-T2 | g | DS | 1 | no | 12/4/2024 | 13:00 | Х | Х | | | | | | | Expedited TAT |
| 2 | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | 1 | | | | | | | |
| 4 | | | | | | | | | | | | | | \top | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | \Box | | _ | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | 1 | | | | | | |
| 9 | | | | | | | | | | 1 | | | | | | |
| 10 | | | | | | | | | | 1 | | | | | | |
| 11 | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | _ | | _ | |

| | Shipping Airbill Number(s): 7704 9457 4955 | | | | 2.6 Cooler Number: 21 of 21 | | | |
|-----|--|-------|------|-------------|-----------------------------|------|--|---------------------|
| | Relinquished By | Date | Time | Received By | Date | Time | | Additional Comments |
| 1.) | Sully | 12424 | 1600 | | 12-5-24 | 10/0 | SAMPLES TO BE ANALYZED BY ALS MIDDLETOWN QSM 6.0 Compliant | |
| 2.) | 0 | | | 7 | | | Deliverable Requirements: DoD Level IV report, EnviroData EDD, and ERIS-compatible EDD | |
| 3.) | | | | | | | | |



Laboratory Certification

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

QA Control Code: A2070148

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