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

Cover Page

Order ID : P5026

Project ID : Hamilton

Client : Tully Construction Co., Inc.

Lab Sample Number	Client Sample Number
P5026-01	SOIL-1-HAM
P5026-02	SOIL-1-HAM
P5026-03	SOIL-1-HAM-TPH2
P5026-04	SOIL-1-HAM-GRAB
P5026-05	SOIL-1-HAM
P5026-06	SOIL-1-HAM
P5026-07	SOIL-1-HAM-TPH2
P5026-08	SOIL-1-HAM-GRAB

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: 12/5/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- INORGANIC

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

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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **P5026**

	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 Castody	✓
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: **PRADIP PRAJAPATI** **Date:** **12/05/2024**

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LAB CHRONICLE

OrderID:	P5026	**OrderDate:**	11/27/2024 11:24:00 AM
Client:	Tully Construction Co., Inc.	**Project:**	Hamilton
Contact:	Dean Devoe	**Location:**	L61,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5026-02	**SOIL-1-HAM**	**SOIL**			**11/27/24 10:42**			**11/27/24**
			Corrosivity	9045D			11/27/24 15:27	
			Ignitability	1030			12/03/24 12:37	
			Reactive Cyanide	9012B		12/02/24	12/02/24 12:28	
			Reactive Sulfide	9034		12/02/24	12/02/24 15:09	
P5026-06	**SOIL-2-HAM**	**SOIL**			**11/27/24 11:10**			**11/27/24**
			Corrosivity	9045D			11/27/24 15:35	
			Ignitability	1030			12/03/24 12:45	
			Reactive Cyanide	9012B		12/02/24	12/02/24 12:28	
			Reactive Sulfide	9034		12/02/24	12/02/24 15:12	

SAMPLE DATA

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Report of Analysis

Client:	Tully Construction Co., Inc.	Date Collected:	11/27/24 10:42
Project:	Hamilton	Date Received:	11/27/24
Client Sample ID:	SOIL-1-HAM	SDG No.:	P5026
Lab Sample ID:	P5026-02	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	11.4	H	1	0	0	pH		11/27/24 15:27	9045D
Ignitability	NO		1	0	0	oC		12/03/24 12:37	1030
Reactive Cyanide	0.0087	U	1	0.0087	0.050	mg/Kg	12/02/24 10:00	12/02/24 12:28	9012B
Reactive Sulfide	1.60	J	1	0.19	10.0	mg/Kg	12/02/24 12:00	12/02/24 15:09	9034

Comments: pH result reported at temperature 23.2 °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

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Report of Analysis

Client:	Tully Construction Co., Inc.	Date Collected:	11/27/24 11:10
Project:	Hamilton	Date Received:	11/27/24
Client Sample ID:	SOIL-2-HAM	SDG No.:	P5026
Lab Sample ID:	P5026-06	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	10.0	H	1	0	0	pH		11/27/24 15:35	9045D
Ignitability	NO		1	0	0	oC		12/03/24 12:45	1030
Reactive Cyanide	0.0087	U	1	0.0087	0.050	mg/Kg	12/02/24 10:00	12/02/24 12:28	9012B
Reactive Sulfide	4.76	J	1	0.19	10.0	mg/Kg	12/02/24 12:00	12/02/24 15:12	9034

Comments: pH result reported at temperature 22.9 °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

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Initial and Continuing Calibration Verification

Client: Tully Construction Co., Inc. **SDG No.:** P5026

Project: Hamilton **RunNo.:** LB133666

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
Corrosivity		pH	7.00	7	100	90-110	11/27/2024
Sample ID:	CCV1						
Corrosivity		pH	2.01	2.00	101	90-110	11/27/2024
Sample ID:	CCV2						
Corrosivity		pH	12.02	12.00	100	90-110	11/27/2024

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Initial and Continuing Calibration Verification

Client: Tully Construction Co., Inc. **SDG No.:** P5026

Project: Hamilton **RunNo.:** LB133685

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Reactive Cyanide	mg/L	0.096	0.099	97	85-115	12/02/2024
Sample ID: CCV1						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	12/02/2024
Sample ID: CCV2						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	12/02/2024
Sample ID: CCV3						
Reactive Cyanide	mg/L	0.25	0.25	100	90-110	12/02/2024

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Initial and Continuing Calibration Blank Summary

Client: Tully Construction Co., Inc. **SDG No.:** P5026

Project: Hamilton **RunNo.:** LB133685

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Reactive Cyanide	mg/L	0.0011	0.0025	J	0.00099	0.005	12/02/2024
Sample ID: CCB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/02/2024
Sample ID: CCB2							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/02/2024
Sample ID: CCB3							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/02/2024

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Preparation Blank Summary

Client: Tully Construction Co., Inc. **SDG No.:** P5026

Project: Hamilton

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB165317BL							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.186	10	12/02/2024
Sample ID: PB165323BL							
Reactive Cyanide	mg/Kg	< 0.0250	0.0250	U	0.0088	0.05	12/02/2024

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Matrix Spike Summary

Client: Tully Construction Co., Inc.
SDG No.: P5026
Project:
Sample ID:
Client ID:
Percent Solids for Spike Sample:

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date

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Duplicate Sample Summary

Client: Tully Construction Co., Inc.
SDG No.: P5026
Project: Hamilton
Sample ID: P5000-04
Client ID: MH-745DUP
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 Cyanide	mg/Kg	+/-20	0.0087	U	0.0087	U	1	0		12/02/2024

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Duplicate Sample Summary

Client: Tully Construction Co., Inc.
SDG No.: P5026
Project: Hamilton
Sample ID: P5005-02
Client ID: STOCK-PILEDUP
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
Corrosivity	pH	+/-20	8.87		8.88		1	0.11		11/27/2024
Reactive Sulfide	mg/Kg	+/-20	1.58	J	1.58	J	1	0		12/02/2024

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Duplicate Sample Summary

Client: Tully Construction Co., Inc.
SDG No.: P5026
Project: Hamilton
Sample ID: P5025-02
Client ID: SOIL-WESTDUP
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
Ignitability	oC	+/-20	NO		NO		1	0		12/03/2024

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Laboratory Control Sample Summary

Client: Tully Construction Co., Inc. **SDG No.:** P5026

Project: **Run No.:**

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID								

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TECHNICAL GROUP

RAW DATA

Reviewed By:Iwona
On:11/27/2024 3:56:24 PM
Inst Id :WC PH METER-1

Analytical Summary Report

Analysis Method: 9045D
Analyst By : jignesh
Parameter: Corrosivity
Supervisor Review By : Iwona
Run Number: LB133666
Slope : 98.6
BalanceID: WC SC-7
pH Meter ID : WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3107
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER,COLOR CD 475ML	W3094
buffer solution pH 7 yellow	W3071
Buffer Solution, PH2 (500ml)	W3005
Buffer Solution, PH12 (500ml)	W3072

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

True Value of CCV1 = 2.00 Control Limits[+/- 0.1].

True Value of CCV2 = 12.00 Control Limits[+/- 0.1].

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	11/27/2024	14:32
2	CAL2	1	Water	NA	NA	20.2	7.00	11/27/2024	14:33
3	CAL3	1	Water	NA	NA	20.2	10.02	11/27/2024	14:35
4	ICV	1	Water	NA	NA	20.2	7.00	11/27/2024	14:40
5	CCV1	1	Water	NA	NA	20.3	2.01	11/27/2024	14:45
6	P5005-02	1	Solid	20.02	20	24.7	8.87	11/27/2024	14:55
7	P5005-02DUP	1	Solid	20.03	20	24.8	8.88	11/27/2024	14:56
8	P5025-02	1	Solid	20.02	20	23.4	10.92	11/27/2024	15:10
9	P5025-06	1	Solid	20.03	20	23.1	10.14	11/27/2024	15:20
10	P5026-02	1	Solid	20.02	20	23.2	11.39	11/27/2024	15:27
11	P5026-06	1	Solid	20.03	20	22.9	10.04	11/27/2024	15:35
12	P5048-04	1	Solid	20.02	20	22.2	8.22	11/27/2024	15:44
13	CCV2	1	Water	NA	NA	20.3	12.02	11/27/2024	16:00

LB13

Test results | Aquakem 7.2AQ1 | Page:

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

12/2/2024 12:41 | Reviewed by : NF | Instrument ID : Konelab

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	95.841	0.0	0.071	
ICB1	1.086	0.0	0.002	
CCV1	241.356	0.0	0.177	
CCB1	0.437	0.0	0.002	
PB165323BL	0.389	0.0	0.002	
P5000-04	0.482	0.0	0.002	
P5000-04DUP	-0.285	0.0	0.001	
P5000-08	0.187	0.0	0.002	
P5005-02	0.169	0.0	0.002	
P5025-02	-0.063	0.0	0.002	
P5025-06	0.097	0.0	0.002	
P5026-02	0.108	0.0	0.002	
P5026-06	0.125	0.0	0.002	
P5048-04	0.080	0.0	0.002	
CCV2	239.188	0.0	0.176	
CCB2	0.014	0.0	0.002	
PB165324BL	0.179	0.0	0.002	
P4995-02	0.232	0.0	0.002	
P4995-02DUP	0.221	0.0	0.002	
CCV3	246.490	0.0	0.181	
CCB3	0.627	0.0	0.002	

N	21
Mean	39.379
SD	87.4197
CV%	222.00

Aquakem v. 7.2AQ1
Results from time period:
Mon Dec 02 11:05:12 2024
Mon Dec 02 12:35:18 2024

Sample Id	Sam/Ctr/cA	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	0.0809	µg/l	12/2/2024 11:05:12	
5.0PPBCN	A	Total CN	P	4.9413	µg/l	12/2/2024 11:05:13	
10PPBCN	A	Total CN	P	10.4229	µg/l	12/2/2024 11:05:14	
50PPBCN	A	Total CN	P	48.9508	µg/l	12/2/2024 11:05:15	
100PPBCN	A	Total CN	P	98.7166	µg/l	12/2/2024 11:05:16	
250PPBCN	A	Total CN	P	253.0674	µg/l	12/2/2024 11:05:17	
500PPBCN	A	Total CN	P	498.82	µg/l	12/2/2024 11:05:18	
ICV1	S	Total CN	P	95.8412	µg/l	12/2/2024 12:20:59	
ICB1	S	Total CN	P	1.0856	µg/l	12/2/2024 12:21:01	
CCV1	S	Total CN	P	241.3562	µg/l	12/2/2024 12:21:04	
CCB1	S	Total CN	P	0.4371	µg/l	12/2/2024 12:21:06	
PB165323BL	S	Total CN	P	0.3888	µg/l	12/2/2024 12:21:07	
P5000-04	S	Total CN	P	0.4823	µg/l	12/2/2024 12:21:09	
P5000-04DUP	S	Total CN	P	-0.2847	µg/l	12/2/2024 12:28:31	
P5000-08	S	Total CN	P	0.1865	µg/l	12/2/2024 12:28:32	
P5005-02	S	Total CN	P	0.1687	µg/l	12/2/2024 12:28:33	
P5025-02	S	Total CN	P	-0.0632	µg/l	12/2/2024 12:28:34	
P5025-06	S	Total CN	P	0.0967	µg/l	12/2/2024 12:28:35	
P5026-02	S	Total CN	P	0.1076	µg/l	12/2/2024 12:28:36	
P5026-06	S	Total CN	P	0.1254	µg/l	12/2/2024 12:28:37	
P5048-04	S	Total CN	P	0.0801	µg/l	12/2/2024 12:28:38	
CCV2	S	Total CN	P	239.1877	µg/l	12/2/2024 12:28:41	
CCB2	S	Total CN	P	0.0139	µg/l	12/2/2024 12:35:10	
PB165324BL	S	Total CN	P	0.179	µg/l	12/2/2024 12:35:11	
P4995-02	S	Total CN	P	0.2316	µg/l	12/2/2024 12:35:12	
P4995-02DUP	S	Total CN	P	0.2215	µg/l	12/2/2024 12:35:14	
CCV3	S	Total CN	P	246.4903	µg/l	12/2/2024 12:35:17	
CCB3	S	Total CN	P	0.6273	µg/l	12/2/2024 12:35:18	

Calibration results — Aquakem 7.2AQ1 —

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

12/2/2024 11:06

Reviewed by : NF

Instrument ID : Konelab

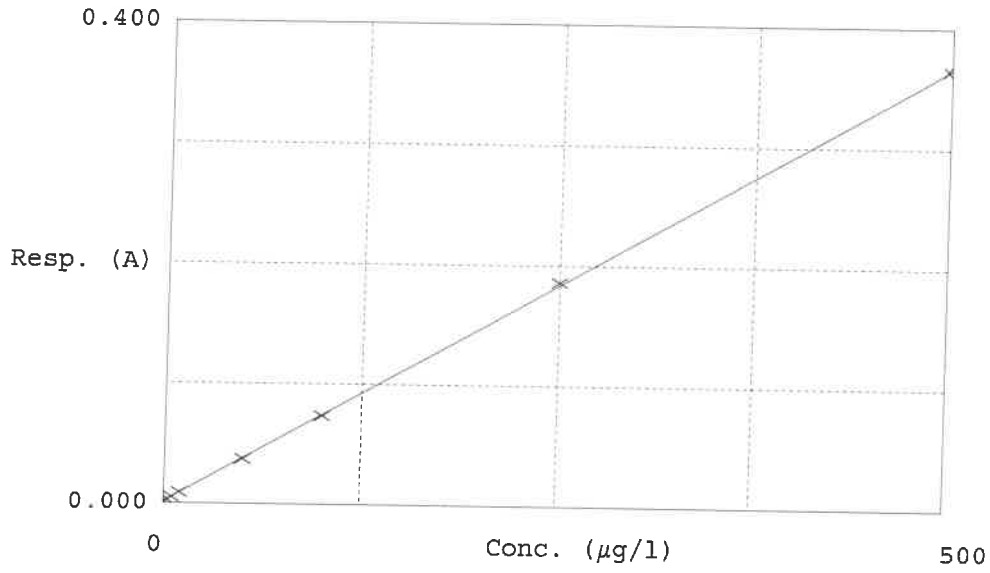
Test Total CN

Accepted 12/2/2024 11:06

Factor 1373
Bias 0.002

Coeff. of det. 0.999933

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors (Re)
1	0.0PPBCN	0.002	0.0809	0.0000	
2	5.0PPBCN	0.005	4.9413	5.0000	-1.2
3	10PPBCN	0.009	10.4229	10.0000	4.2
4	50PPBCN	0.037	48.9508	50.0000	-2.1
5	100PPBCN	0.074	98.7166	100.0000	-1.3
6	250PPBCN	0.186	253.0674	250.0000	1.2
7	500PPBCN	0.365	498.8200	500.0000	-0.2

NF
12.02.2024

CHEMTECH

Analytical Summary Report

Analysis Method: 9034
Parameter: Reactive Sulfide
Run Number: LB133694

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	PB165317BL		1	5.00	50	2.00	0.00	1.92	1.92	0.08	0.00	0.00	12/02/2024	14:55
2	P5005-02		1	5.06	50	2.00	0.00	1.90	1.90	0.10	0.02	1.58	12/02/2024	14:58
3	P5005-02DUP		1	5.06	50	2.00	0.00	1.90	1.90	0.10	0.02	1.58	12/02/2024	15:00
4	P5025-02		1	5.02	50	2.00	0.00	1.88	1.88	0.12	0.04	3.19	12/02/2024	15:03
5	P5025-06		1	5.03	50	2.00	0.00	1.88	1.88	0.12	0.04	3.18	12/02/2024	15:06
6	P5026-02		1	5.01	50	2.00	0.00	1.90	1.90	0.10	0.02	1.60	12/02/2024	15:09
7	P5026-06		1	5.04	50	2.00	0.00	1.86	1.86	0.14	0.06	4.76	12/02/2024	15:12
8	P5048-04		1	5.04	50	2.00	0.00	1.90	1.90	0.10	0.02	1.59	12/02/2024	15:15

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

Analytical Summary Report

Analysis Method: 1030 **Reviewed By:** rubina

Parameter: Ignitability **Supervisor Review By:** Iwona

Run Number: LB133704

Seq	LabID	ClientID	DF	matrix	Result Status	Burning Rate	Anal Date	Anal Time
1	P5025-02	SOIL-WEST	1	Solid	NO	0.00	12/03/2024	12:15
2	P5025-02DUP	SOIL-WESTDUP	1	Solid	NO	0.00	12/03/2024	12:22
3	P5025-06	SOIL-EAST	1	Solid	NO	0.00	12/03/2024	12:30
4	P5026-02	SOIL-1-HAM	1	Solid	NO	0.00	12/03/2024	12:37
5	P5026-06	SOIL-1-HAM	1	Solid	NO	0.00	12/03/2024	12:45
6	P5048-01	MH-746-WC	1	Solid	NO	0.00	12/03/2024	12:52
7	P5048-04	MH-746-WC	1	Solid	NO	0.00	12/03/2024	13:00
8	P5052-01	OR-640-COMP-50	1	Solid	NO	0.00	12/03/2024	13:08
9	P5052-02	OR-640-COMP-50	1	Solid	NO	0.00	12/03/2024	13:15
10	P5052-07	OR-640-COMP-51	1	Solid	NO	0.00	12/03/2024	13:22
11	P5052-08	OR-640-COMP-51	1	Solid	NO	0.00	12/03/2024	13:30
12	P5052-13	OR-640-COMP-62	1	Solid	NO	0.00	12/03/2024	13:38
13	P5052-14	OR-640-COMP-62	1	Solid	NO	0.00	12/03/2024	13:45
14	P5052-19	OR-640-COMP-63	1	Solid	NO	0.00	12/03/2024	13:52
15	P5052-20	OR-640-COMP-63	1	Solid	NO	0.00	12/03/2024	14:00

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

WORKLIST(Hardcopy Internal Chain)

LB133704

WorkList Name : ign12-2 **WorkList ID :** 185879 **Department :** Wet-Chemistry **Date :** 12-02-2024 08:49:07

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5025-02	SOIL-WEST	Solid	Ignitability	Cool 4 deg C	TULL02	L61	11/27/2024	1030
P5025-06	SOIL-EAST	Solid	Ignitability	Cool 4 deg C	TULL02	L61	11/27/2024	1030
P5026-02	SOIL-1-HAM	Solid	Ignitability	Cool 4 deg C	TULL02	L61	11/27/2024	1030
P5026-06	SOIL-1-HAM	Solid	Ignitability	Cool 4 deg C	TULL02	L61	11/27/2024	1030
P5048-01	MH-746-WC	Solid	Ignitability	Cool 4 deg C	TULL02	L61	11/27/2024	1030
P5048-04	MH-746-WC	Solid	Ignitability	Cool 4 deg C	PSEG03	L61	11/27/2024	1030
P5052-01	OR-640-COMP-50	Solid	Ignitability	Cool 4 deg C	PSEG03	L61	11/27/2024	1030
P5052-02	OR-640-COMP-50	Solid	Ignitability	Cool 4 deg C	PSEG03	M11	12/02/2024	1030
P5052-07	OR-640-COMP-51	Solid	Ignitability	Cool 4 deg C	PSEG03	M11	12/02/2024	1030
P5052-08	OR-640-COMP-51	Solid	Ignitability	Cool 4 deg C	PSEG03	M11	12/02/2024	1030
P5052-13	OR-640-COMP-62	Solid	Ignitability	Cool 4 deg C	PSEG03	M11	12/02/2024	1030
P5052-14	OR-640-COMP-62	Solid	Ignitability	Cool 4 deg C	PSEG03	M11	12/02/2024	1030
P5052-19	OR-640-COMP-63	Solid	Ignitability	Cool 4 deg C	PSEG03	M11	12/02/2024	1030
P5052-20	OR-640-COMP-63	Solid	Ignitability	Cool 4 deg C	PSEG03	M11	12/02/2024	1030

Date/Time 12/03/2024 12:00

Raw Sample Received by: RM (WC)

Raw Sample Relinquished by:

Date/Time 12/03/2024 14:15

Raw Sample Received by:

Raw Sample Relinquished by: RM (WC)

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Sulfide Preparation Sheet

PB165317

SOP ID : M9030B-Sulfide-12

SDG No : N/A

Matrix : SOIL

Pippete ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#1

Block ID : MC-1,MC-2

Weigh By : RM

Start Digest Date: 12/02/2024 **Time :** 12:00 **Temp :** N/A

End Digest Date: 12/02/2024 **Time :** 13:30 **Temp :** N/A

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : N/A

Prep Technician Signature: RM

Supervisor Signature: JZ

Standared 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	WP108780
FORMALDEHYDE	2.0ML	W2725
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:

12/02/2024 RM

N/A

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

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Sulfide Preparation Sheet

PB165317

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P5005-02	STOCK-PILE	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
P5005-02DUP	STOCK-PILEDUP	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
P5025-02	SOIL-WEST	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
P5025-06	SOIL-EAST	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
P5026-02	SOIL-1-HAM	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
P5026-06	SOIL-1-HAM	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
P5048-04	MH-746-WC	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
PB165317BL	PBS317	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : rsul-12-2 **WorkList ID :** 185878 **Department :** Distillation **Date :** 12-02-2024 08:43:01

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5005-02	STOCK-PILE	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03		11/26/2024	9034
P5025-02	SOIL-WEST	Solid	Reactive Sulfide	Cool 4 deg C	TULL02	L61	11/27/2024	9034
P5025-06	SOIL-EAST	Solid	Reactive Sulfide	Cool 4 deg C	TULL02	L61	11/27/2024	9034
P5026-02	SOIL-1-HAM	Solid	Reactive Sulfide	Cool 4 deg C	TULL02	L61	11/27/2024	9034
P5026-06	SOIL-1-HAM	Solid	Reactive Sulfide	Cool 4 deg C	TULL02	L61	11/27/2024	9034
P5048-04	MH-746-WC	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	L61	11/27/2024	9034

Date/Time 12/02/2024 11.20
Raw Sample Received by: RM CWG
Raw Sample Relinquished by:

Date/Time 12/02/2024 12.10
Raw Sample Received by:
Raw Sample Relinquished by: RM CWG

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Cyanide Preparation Sheet

PB165323

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

SDG No : N/A

Matrix : SOIL

Pippete ID : N/A

Balance ID : WC SC-7

Hood ID : HOOD#1

Block ID : MC-1, MC-2

Weigh By : NF

Start Digest Date: 12/02/2024 **Time :** 10:00 **Temp :** N/A

End Digest Date: 12/02/2024 **Time :** 11:30 **Temp :** N/A

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : N/A

Prep Technician Signature: NF

Supervisor Signature: IR

Standared 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	N/A	WP108640
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
10.02.2024, 11:40	NF(WC)	NF(WC)
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Cyanide Preparation Sheet

PB165323

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P5000-04	MH-745	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
P5000-04DUP	MH-745DUP	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
P5000-08	MH-733	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
P5005-02	STOCK-PILE	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
P5025-02	SOIL-WEST	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
P5025-06	SOIL-EAST	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
P5026-02	SOIL-1-HAM	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
P5026-06	SOIL-1-HAM	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
P5048-04	MH-746-WC	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
PB165323BL	PBS323	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : RCN S-12022024 **WorkList ID :** 185888 **Department :** Distillation **Date :** 12-02-2024 09:45:43

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5000-04	MH-745	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	L61	11/25/2024	9012B
P5000-08	MH-733	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	L61	11/25/2024	9012B
P5005-02	STOCK-PILE	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03		11/26/2024	9012B
P5025-02	SOIL-WEST	Solid	Reactive Cyanide	Cool 4 deg C	TULL02	L61	11/27/2024	9012B
P5025-06	SOIL-EAST	Solid	Reactive Cyanide	Cool 4 deg C	TULL02	L61	11/27/2024	9012B
P5026-02	SOIL-1-HAM	Solid	Reactive Cyanide	Cool 4 deg C	TULL02	L61	11/27/2024	9012B
P5026-06	SOIL-1-HAM	Solid	Reactive Cyanide	Cool 4 deg C	TULL02	L61	11/27/2024	9012B
P5048-04	MH-746-WC	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	L61	11/27/2024	9012B

Date/Time 12·02·2024, 09:50
Raw Sample Received by: NF(WC)
Raw Sample Relinquished by:

Date/Time 12·02·2024, 10:48
Raw Sample Received by:
Raw Sample Relinquished by: NF(WC)

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Fax : 908 789 8922

Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB133666

Review By	jignesh	Review On	11/27/2024 3:51:53 PM
Supervise By	Iwona	Supervise On	11/27/2024 3:56:24 PM
SubDirectory	LB133666	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	W3107,W3093,W3094,W3071,W3005,W3072

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	11/27/24 14:32		Jignesh	OK
2	CAL2	CAL2	CAL	11/27/24 14:33		Jignesh	OK
3	CAL3	CAL3	CAL	11/27/24 14:35		Jignesh	OK
4	ICV	ICV	ICV	11/27/24 14:40		Jignesh	OK
5	CCV1	CCV1	CCV	11/27/24 14:45		Jignesh	OK
6	P5005-02	STOCK-PILE	SAM	11/27/24 14:55		Jignesh	OK
7	P5005-02DUP	STOCK-PILEDUP	DUP	11/27/24 14:56		Jignesh	OK
8	P5025-02	SOIL-WEST	SAM	11/27/24 15:10		Jignesh	OK
9	P5025-06	SOIL-EAST	SAM	11/27/24 15:20		Jignesh	OK
10	P5026-02	SOIL-1-HAM	SAM	11/27/24 15:27		Jignesh	OK
11	P5026-06	SOIL-1-HAM	SAM	11/27/24 15:35		Jignesh	OK
12	P5048-04	MH-746-WC	SAM	11/27/24 15:44		Jignesh	OK
13	CCV2	CCV2	CCV	11/27/24 16:00		Jignesh	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB133685

Review By	Niha	Review On	12/3/2024 10:28:17 AM
Supervise By	Iwona	Supervise On	12/3/2024 1:21:24 PM
SubDirectory	LB133685	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP110906,WP110907,WP110908,WP110909,WP110910,WP110911,WP110912
ICV Standard	WP110904
CCV Standard	WP110907
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP109068,WP110103,WP110905

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	12/02/24 11:05		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	12/02/24 11:05		Niha	OK
3	10PPBCN	10PPBCN	CAL3	12/02/24 11:05		Niha	OK
4	50PPBCN	50PPBCN	CAL4	12/02/24 11:05		Niha	OK
5	100PPBCN	100PPBCN	CAL5	12/02/24 11:05		Niha	OK
6	250PPBCN	250PPBCN	CAL6	12/02/24 11:05		Niha	OK
7	500PPBCN	500PPBCN	CAL7	12/02/24 11:05		Niha	OK
8	ICV1	ICV1	ICV	12/02/24 12:20		Niha	OK
9	ICB1	ICB1	ICB	12/02/24 12:21		Niha	OK
10	CCV1	CCV1	CCV	12/02/24 12:21		Niha	OK
11	CCB1	CCB1	CCB	12/02/24 12:21		Niha	OK
12	PB165323BL	PB165323BL	MB	12/02/24 12:21		Niha	OK
13	P5000-04	MH-745	SAM	12/02/24 12:21		Niha	OK
14	P5000-04DUP	MH-745DUP	DUP	12/02/24 12:28		Niha	OK
15	P5000-08	MH-733	SAM	12/02/24 12:28		Niha	OK
16	P5005-02	STOCK-PILE	SAM	12/02/24 12:28		Niha	OK
17	P5025-02	SOIL-WEST	SAM	12/02/24 12:28		Niha	OK
18	P5025-06	SOIL-EAST	SAM	12/02/24 12:28		Niha	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB133685

Review By	Niha	Review On	12/3/2024 10:28:17 AM
Supervise By	Iwona	Supervise On	12/3/2024 1:21:24 PM
SubDirectory	LB133685	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP110906,WP110907,WP110908,WP110909,WP110910,WP110911,WP110912
ICV Standard	WP110904
CCV Standard	WP110907
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP109068,WP110103,WP110905

19	P5026-02	SOIL-1-HAM	SAM	12/02/24 12:28		Niha	OK
20	P5026-06	SOIL-1-HAM	SAM	12/02/24 12:28		Niha	OK
21	P5048-04	MH-746-WC	SAM	12/02/24 12:28		Niha	OK
22	CCV2	CCV2	CCV	12/02/24 12:28		Niha	OK
23	CCB2	CCB2	CCB	12/02/24 12:35		Niha	OK
24	PB165324BL	PB165324BL	MB	12/02/24 12:35		Niha	OK
25	P4995-02	001	SAM	12/02/24 12:35		Niha	OK
26	P4995-02DUP	001DUP	DUP	12/02/24 12:35		Niha	OK
27	CCV3	CCV3	CCV	12/02/24 12:35		Niha	OK
28	CCB3	CCB3	CCB	12/02/24 12:35		Niha	OK

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Instrument ID: TITRAMETRIC

Daily Analysis Runlog For Sequence/QCBatch ID # LB133694

Review By	rubina	Review On	12/2/2024 4:28:42 PM
Supervise By	Iwona	Supervise On	12/2/2024 4:30:32 PM
SubDirectory	LB133694	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	PB165317BL	PB165317BL	MB	12/02/24 14:55		rubina	OK
2	P5005-02	STOCK-PILE	SAM	12/02/24 14:58		rubina	OK
3	P5005-02DUP	STOCK-PILEDUP	DUP	12/02/24 15:00		rubina	OK
4	P5025-02	SOIL-WEST	SAM	12/02/24 15:03		rubina	OK
5	P5025-06	SOIL-EAST	SAM	12/02/24 15:06		rubina	OK
6	P5026-02	SOIL-1-HAM	SAM	12/02/24 15:09		rubina	OK
7	P5026-06	SOIL-1-HAM	SAM	12/02/24 15:12		rubina	OK
8	P5048-04	MH-746-WC	SAM	12/02/24 15:15		rubina	OK

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Instrument ID: FLAME

Daily Analysis Runlog For Sequence/QCBatch ID # LB133704

Review By	rubina	Review On	12/3/2024 2:18:38 PM
Supervise By	Iwona	Supervise On	12/3/2024 2:39:34 PM
SubDirectory	LB133704	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

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	P5025-02	SOIL-WEST	SAM	12/03/24 12:15		rubina	OK
2	P5025-02DUP	SOIL-WESTDUP	DUP	12/03/24 12:22		rubina	OK
3	P5025-06	SOIL-EAST	SAM	12/03/24 12:30		rubina	OK
4	P5026-02	SOIL-1-HAM	SAM	12/03/24 12:37		rubina	OK
5	P5026-06	SOIL-1-HAM	SAM	12/03/24 12:45		rubina	OK
6	P5048-01	MH-746-WC	SAM	12/03/24 12:52		rubina	OK
7	P5048-04	MH-746-WC	SAM	12/03/24 13:00		rubina	OK
8	P5052-01	OR-640-COMP-50	SAM	12/03/24 13:08		rubina	OK
9	P5052-02	OR-640-COMP-50	SAM	12/03/24 13:15		rubina	OK
10	P5052-07	OR-640-COMP-51	SAM	12/03/24 13:22		rubina	OK
11	P5052-08	OR-640-COMP-51	SAM	12/03/24 13:30		rubina	OK
12	P5052-13	OR-640-COMP-62	SAM	12/03/24 13:38		rubina	OK
13	P5052-14	OR-640-COMP-62	SAM	12/03/24 13:45		rubina	OK
14	P5052-19	OR-640-COMP-63	SAM	12/03/24 13:52		rubina	OK
15	P5052-20	OR-640-COMP-63	SAM	12/03/24 14:00		rubina	OK

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

Prep Standard - Chemical Standard Summary

Order ID : P5026

Test : Corrosivity,Ignitability,Percent Solids,Reactive Cyanide,Reactive Sulfide

Prepbatch ID : PB165317,PB165323,

Sequence ID/Qc Batch ID: LB133666,LB133685,LB133694,LB133704,

Standard ID :
WP108640,WP108780,WP109068,WP109549,WP110103,WP110903,WP110904,WP110905,WP110906,WP110907,WP110908,WP110909,WP110910,WP110911,WP110912,

Chemical ID :
E3657,M5929,W2668,W2725,W2882,W2926,W3005,W3019,W3071,W3072,W3093,W3094,W3105,W3107,W3112,W3114,W3138,W3139,W3149,W3154,

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

Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
11	Sodium hydroxide absorbing solution 0.25 N	WP108640	07/05/2024	01/05/2025	Rubina Mughal	WETCHEM_SCALE_4 (WCSC-4)	None	Iwona Zarych 07/08/2024

FROM 21.00000L of W3112 + 210.00000gram of E3657 = Final Quantity: 21.000 L

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
160	0.5M ZINC ACETATE	WP108780	07/22/2024	12/08/2024	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/23/2024

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

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
607	PYRIDINE-BARBITURIC ACID	WP109068	08/06/2024	12/08/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 08/07/2024

FROM 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	01/05/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 09/06/2024

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

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Fax : 908 789 8922

Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
539	CN BUFFER	WP110103	10/08/2024	04/08/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 10/08/2024

FROM 138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3456	Cyanide Intermediate Working Std, 5PPM	WP110903	12/02/2024	12/03/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/02/2024

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

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2168	RCN ICV STD, 100 PPB	WP110904	12/02/2024	12/03/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/02/2024

FROM 1.00000ml of WP109549 + 49.00000ml of WP108640 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1582	Chloramine T solution, 0.014M	WP110905	12/02/2024	12/03/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 12/02/2024

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

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4	Calibation standard 500 ppb	WP110906	12/02/2024	12/03/2024	Niha Farheen Shaik	None	None	Iwona Zarych 12/02/2024

FROM 45.00000ml of WP108640 + 5.00000ml of WP110903 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3761	Calibration-CCV CN Standard 250 ppb	WP110907	12/02/2024	12/03/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/02/2024

FROM 2.50000ml of WP110903 + 47.50000ml of WP108640 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
6	Calibration Standard 100 ppb	WP110908	12/02/2024	12/03/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/02/2024

FROM 1.00000ml of WP110903 + 49.00000ml of WP108640 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
7	Calibration Standard 50 ppb	WP110909	12/02/2024	12/03/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/02/2024

FROM 0.50000ml of WP110903 + 49.50000ml of WP108640 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
8	Calibration Standard 10 ppb	WP110910	12/02/2024	12/03/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/02/2024

FROM 1.00000ml of WP110906 + 49.00000ml of WP108640 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
9	Calibration Standard 5 ppb	WP110911	12/02/2024	12/03/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/02/2024

FROM 0.50000ml of WP110906 + 49.50000ml of WP108640 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
167	0 ppb CN calibration std	WP110912	12/02/2024	12/03/2024	Niha Farheen Shaik	None	None	Iwona Zarych 12/02/2024

FROM 50.00000ml of WP108640 = Final Quantity: 50.000 ml

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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.	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 /	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,ACS,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 #
PCI Scientific Supply, Inc.	AL13850-1 / Buffer Solution, PH2 (500ml)	4212E45	12/31/2024	01/31/2023 / Iwona	01/31/2023 / Iwona	W3005

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.	AL14455-3 / buffer solution pH 7 yellow	4308H30	07/31/2025	01/02/2024 / JIGNESH	12/06/2023 / Iwona	W3071

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14940-1 / Buffer Solution, PH12 (500ml)	2310P21	04/30/2025	01/02/2024 / JIGNESH	12/07/2023 / Iwona	W3072

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 #
PCI Scientific Supply, Inc.	1601-1 / PH 10.01 BUFFER,COLOR CD 475ML	4310g83	03/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3094

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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.	AL69870-8 / SODIUM THIOSULFATE,0.025N,4LITRE	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 #
PCI Scientific Supply, Inc.	AL14055-3 / PH 4 BUFFER SOLUTION	AL14055-3	02/27/2026	09/05/2024 / jignesh	05/13/2024 / jignesh	W3107

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 / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	LC135457 / Cyanide Standard, 1000 PPM, Second Source	44080060	01/30/2025	09/06/2024 / Iwona	08/28/2024 / Iwona	W3138

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

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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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customerservice@riccachemical.com

W3071
Rec 12/6/23

Certificate of Analysis 12

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

Lot Number: 4308H30 **Product Number:** 1551

Manufacture Date: AUG 09, 2023
Expiration Date: JUL 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	Reagent

Test	Specification	Result	
Appearance	Yellow liquid	Passed	*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	7.002	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)
1551-2.5	10 L Cubitainer®	24 months
1551-5	20 L Cubitainer®	24 months

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

Paul Brandon (08/09/2023)
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

Sigma-Aldrich.

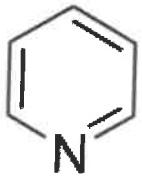
W3019
Rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

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:	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 %
Water (by Karl Fischer)	≤ 0.003 %	0.002 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %

Larry Coers, Director
Quality Control
Sheboygan Falls, WI US

RICCA CHEMICAL COMPANY®

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Pocomoke City, MD 21851
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W3072
Rec. 12/01/23
, 2

Certificate of Analysis

Buffer, Reference Standard, pH 12.00 ± 0.01 at 25°C

Lot Number: 2310P21 **Product Number:** 1615

Manufacture Date: OCT 24, 2023
Expiration Date: APR 2025

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

Test	Specification	Result	
Appearance	Colorless liquid	Passed	*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	12.005	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
1615-32	1 L natural poly	18 months
1615-5	20 L Cubitainer®	18 months

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

Sharon Travers (10/24/2023)
Operations 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

W2723, W2724, W2725, W2726 Received on 6/22/20 by AP

Certificate of Analysis

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	Requirement		Results	Units
	Min.	Max.		
Assay	36.5	38.0	36.71	%
Chloride (Cl)		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
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EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
290 Concord Road
Billerica, MA 01821
U.S.A

VWR®

Certificate of Analysis

Sodium Hydroxide (Pellets)

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

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

Pellets

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

Storage: Room Temperature

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

Internal ID #: 710

Signature

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.

E 3657	E 3659
E 3654	E 3660

Certificate of Analysis

1.00132.0000 Barbituric acid for analysis EMSURE®
Batch N020065932

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

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

Ioannis Chartomatsidis
Responsible laboratory manager quality control

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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 ($NaH_2PO_4 \cdot H_2O$)	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 (Cl)	<= 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

Jamie Ethier
Vice President Global Quality

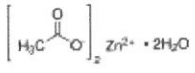
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

W2926
open 7/5/22
received
on
7/5/22

Certificate of Analysis

Product Name:
Zinc acetate dihydrate - ACS reagent, ≥98%



Product Number:	**383058**
Batch Number:	**MKCQ9159**
Brand:	SIGALD
CAS Number:	5970-45-6
MDL Number:	MFCD00066961
Formula:	C4H6O4Zn · 2H2O
Formula Weight:	219.51 g/mol
Quality Release Date:	06 JAN 2022

Test	Specification	Result
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

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W 3005 REC. 1/31/23 12

Certificate of Analysis

Buffer, Reference Standard, pH 2.00 ± 0.01 at 25°C

Lot Number: 4212E45 **Product Number:** 1493

Manufacture Date: DEC 20, 2022
Expiration Date: DEC 2024

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)	2.000	0.02	185i, 186-I-g, 186-II-g

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)
1493-1	4 L natural poly	24 months
1493-16	500 mL natural poly	24 months
1493-32	1 L natural poly	24 months
1493-5	20 L Cubitainer®	24 months

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

Paul Brandon (12/20/2022)
Production Manager
This Certificate of Analysis 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

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W3093 0941.. 04/03/2024 LG

Certificate of Analysis

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

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W3094 JB opened: 04/03/2025

Certificate of Analysis

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

Lot Number: 4310G83 **Product Number:** 1601 **Manufacture Date:** OCT 09, 2023

Expiration Date: MAR 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	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	*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	10.003	0.02	186-I-g, 186-II-g, 191d

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer C	ASTM (D 5464)
Buffer C	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)
1601-16	500 mL natural poly	18 months
1601-5	20 L Cubitainer®	18 months

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

Paul Brandon (10/09/2023)
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

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W3105 Received on 4/22/24 by IZ

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)

Paul Brandon (03/29/2024)
Production Manager
This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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W3107 38

Certificate of Analysis

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

Lot Number: 4403F90 **Product Number:** 1501

Manufacture Date: MAR 09, 2024
Expiration Date: FEB 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)	4.000	0.02	185i, 186-I-g, 186-II-g

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer B	ASTM (D 5464)
Buffer B	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)
1501-2.5	10 L Cubitainer®	24 months
1501-32	1 L natural poly	24 months
1501-5	20 L Cubitainer®	24 months

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

Paul Brandon (03/09/2024)
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

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Certificate of Analysis

Iodine (Iodine-Iodide), 0.0250 Normal (N/40), 1 mL = 0.4008 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#
Appearance	Dark brown liquid	Passed	
Assay (vs. Sodium Thiosulfate/Starch)	0.02498-0.02502 N at 20°C	0.02502 N at 20°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

LabChem
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 Monteleone

Michael Monteleone
Chemistry Supervisor - Quality Control

ISO9001:2015 Registration #0306-01

2024080113:32:16bsturges-0-0

ThermoFisher SCIENTIFIC

Certificate of Analysis

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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W3149 Received on 10/16/24 by IZ

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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-Cl 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-Cl 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 (08/28/2024)
Production Manager

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/2/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 11/27/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:15
Out Date: 11/28/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB133667

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
P5022-01	TAPIAL2-SB02D-13-112424-00-T1	1	1.15	8.70	9.85	9.23	92.9	
P5025-01	SOIL-WEST	2	1.18	8.43	9.61	8.41	85.8	
P5025-03	SOIL-WEST-TPH2	3	1.17	8.60	9.77	8.54	85.7	
P5025-04	SOIL-WEST-GRAB	4	1.16	8.49	9.65	8.43	85.6	
P5025-05	SOIL-EAST	5	1.15	8.73	9.88	7.85	76.7	
P5025-07	SOIL-EAST-TPH2	6	1.11	8.70	9.81	7.76	76.4	
P5025-08	SOIL-EAST-GRAB	7	1.15	8.82	9.97	9.39	93.4	
P5026-01	SOIL-1-HAM	8	1.13	8.65	9.78	8.00	79.4	
P5026-03	SOIL-1-HAM-TPH2	9	1.17	8.50	9.67	8.72	88.8	
P5026-04	SOIL-1-HAM-GRAB	10	1.18	8.42	9.6	8.66	88.8	
P5026-05	SOIL-1-HAM	11	1.15	8.81	9.96	8.00	77.8	
P5026-07	SOIL-1-HAM-TPH2	12	1.19	8.50	9.69	7.51	74.4	
P5026-08	SOIL-1-HAM-GRAB	13	1.14	8.75	9.89	7.7	75.0	
P5045-01	SU-04-11222024	14	1.19	8.50	9.69	8.96	91.4	
P5045-02	SU-04-11222024-E2	15	1.13	8.74	9.87	8.49	84.2	
P5046-01	HD-01-11272024	16	1.17	8.57	9.74	8.8	89.0	
P5046-02	HD-01-11272024-E2	17	1.16	8.83	9.99	9.00	88.8	
P5048-01	MH-746-WC	18	1.17	8.65	9.82	9.18	92.6	
P5048-02	MH-746-EPH	19	1.15	8.80	9.95	8.91	88.2	
P5048-03	MH-746--VOC	20	1.15	8.36	9.51	8.48	87.7	

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

WORKLIST(Hardcopy Internal Chain)

JB 133667

WorkList Name : %1-112724 **WorkList ID :** 185820 **Department :** Wet-Chemistry **Date :** 11-27-2024 08:06:01

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5022-01	TAPIAL2-SB02D-13-112424-00-	Solid	Percent Solids	Cool 4 deg C	WEST04	L41	11/24/2024	Chemtech -SO
P5025-01	SOIL-WEST	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5025-03	SOIL-WEST-TPH2	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5025-04	SOIL-WEST-GRAB	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5025-05	SOIL-EAST	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5025-07	SOIL-EAST-TPH2	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5025-08	SOIL-EAST-GRAB	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5026-01	SOIL-1-HAM	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5026-03	SOIL-1-HAM-TPH2	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5026-04	SOIL-1-HAM-GRAB	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5026-05	SOIL-1-HAM	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5026-07	SOIL-1-HAM-TPH2	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5026-08	SOIL-1-HAM-GRAB	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5045-01	SU-04-11222024	Solid	Percent Solids	Cool 4 deg C	TULL02	L61	11/27/2024	Chemtech -SO
P5045-02	SU-04-11222024-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	11/27/2024	Chemtech -SO
P5046-01	HD-01-11272024	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	11/27/2024	Chemtech -SO
P5046-02	HD-01-11272024-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	11/27/2024	Chemtech -SO
P5048-01	MH-746-WC	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	11/27/2024	Chemtech -SO
P5048-02	MH-746-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	11/27/2024	Chemtech -SO
P5048-03	MH-746--VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	11/27/2024	Chemtech -SO
					PSEG03	L61	11/27/2024	Chemtech -SO

Date/Time 11/27/24 16:10

Raw Sample Received by: JB WDC

Raw Sample Relinquished by: [signature]

Date/Time 11/27/24 17:20

Raw Sample Received by: [signature]

Raw Sample Relinquished by: JB WDC

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. / QUOTE NO. P5026
COC Number 2042079

CLIENT INFORMATION
REPORT TO BE SENT TO:
COMPANY: Tully Construction Co. Inc
ADDRESS: 104th St & 164th Drive
CITY Queens STATE: NY ZIP:
ATTENTION: Dean Devoe
PHONE: FAX:

CLIENT PROJECT INFORMATION
PROJECT NAME:
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION
BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

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

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

ANALYSIS
1 VOCs 2 SVOC & PCB 3 TCLP Extraction 4 Corrosivity 5 Ignitability 6 Reactive Cyn 7 Reactive Sulfide 8 Mercury Met & 1 9 TPH

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
								E/F	E	E	E	E	E	E	E	E	← Specify Preservatives A-HCl D-NaOH B-HN03 E-ICE C-H2SO4 F-OTHER
1.	SOIL-1-HAM	SOL	X		112724	1042	7		X	X	X	X	X	X	X	X	
2.	SOIL-1-HAM			X		1045	4	X									0.0 ppm
3.	SOIL-1-HAM-TPH2		X			1050	1									X	
4.	SOIL-2-HAM		X			1110	7		X	X	X	X	X	X	X	X	
5.	SOIL-2-HAM			X		1112	4	X									0.0 ppm
6.	SOIL-2-HAM-TPH2		X			1115	1									X	
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	1130 11-27-24	1.
2.		2.
3.	1400 11-27-24	3.

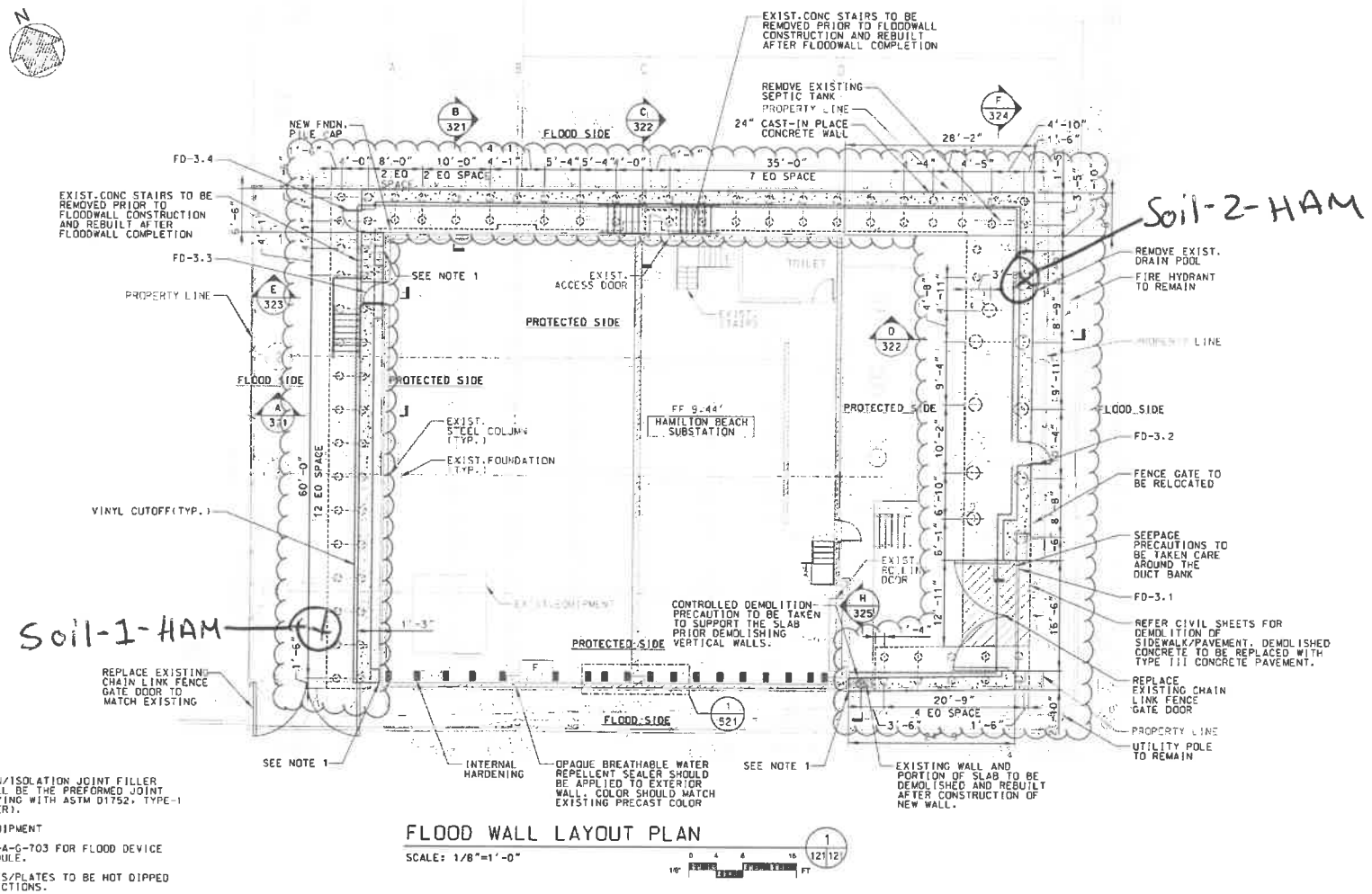
Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP _____ °C
Comments: Collected 8:1 composite Sample + (2) 5:1 Composite Sample for sampling protocol
PID calibration 11-27-24

Page 1 of 1

CLIENT: ☐ Hand Delivered ☐ Other _____
CHEMTECH: ☐ Picked Up ☑ Field Sampling

Shipment Complete ☐ YES ☐ NO

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY



NOTES:

1. THE EXPANSION/ISOLATION JOINT FILLER MATERIAL SHALL BE THE PREFORMED JOINT FILLER COMPLYING WITH ASTM D1752, TYPE-1 (SPONGE RUBBER).
2. F - FIXED EQUIPMENT
3. REFER P36343-4-G-703 FOR FLOOD DEVICE OPENING SCHEDULE.
4. ALL HSS/ANGLES/PLATES TO BE HOT DIPPED GALVANIZED SECTIONS.

FLOOD WALL LAYOUT PLAN

SCALE: 1/8"=1'-0"

REVISION	DESCRIPTION	DATE	APPROVED

REVISIONS

CONSTRUCTION & DEVELOPMENT

CONTRACT P-36343
FLOOD MITIGATION AT TWENTY-SIX (26) SUBSTATIONS IN THE BOROUGH OF BROOKLYN, MANHATTAN AND QUEENS

HAMILTON BEACH SUBSTATION FLOOD WALL PLAN

STATE OF NEW YORK — R. J. NUTHAN — PROFESSIONAL ENGINEER
04-15-2024

DRAWN BY	R. NUTHAN	Nuthan R	DATE 04/15/2024
DESIGNED BY	K.UDAY	Uday. K	DISCIPLINE STRUCTURAL
CHECKED BY	DINAKAR KN	Dinakar	P36343-HAM-CS-121
APPROVED BY	C.JEDRICH, PE		REVISION

$DESIGN$FILESEXPANDED$SPECS

PRINT AS OF $DATE$OFSPLOTTINGS

USER$NAME

CHEMTECH
Environmental Laboratory
www.chemtech.net | EMAIL: PM@chemtech.net

Project Name: _____
Service Order #: _____
Work Order #: _____
Labor WBS #: _____
Facility/Site: Hamilton Beach Sub
Site Address: 164th Street & 64th Drive, Queens NY

Chemtech Order ID: _____
Sampler Name: Jeremy M
Client Project Coordinator & Phone: Dean D
Page #: 1 of 1
Date: 11-27-24
Arrive Time: 1030
Depart Time: 1130

Waste Stream (circle one): drum / roll-off / (soil pile) / in-situ / linear construction / frac-tank
Sample Matrices (circle all that apply): Water / (Solid) / NAPL / Concrete / Wipe

Collection Depths: _____ **Dimensions/CY**: _____
Temp (range): 2.3 °C **PID Readings (range)**: 0.0 PPM **Odor**: Y (N) **Color**: Y (N)
Sample Description: Wet Sand, Rocks.
Field Observations: Very wet Sand, (2) unique locations

Grid/Area Composite Map:

QA Control # A3041134

See Attached Map

Sampler Signature: JM
Client Signature: _____

Supervisor Review/Date: _____
Date/Time Arrived at Lab: _____

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

Laboratory Certification

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

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P5026 TULL02
Client Name : Tully Construction Co., Inc.
Client Contact : Dean Devoe
Invoice Name : Tully Construction Co., Inc.
Invoice Contact : Dean Devoe

Order Date : 11/27/2024 11:24:00 AM
Project Name : Hamilton
Receive DateTime : 11/27/2024 2:00:00 PM
Purchase Order :

Project Mgr :
Report Type : Level 1
EDD Type : Excel NY 375
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD		FAX DATE	DUE DATES
P5026-04	SOIL-1-HAM-GRAB	Solid	11/27/2024	10:45						
					VOC-TCLVOA-10		8260D	5 Bus. Days		
P5026-08	SOIL-1-HAM-GRAB	Solid	11/27/2024	11:12						
					VOC-TCLVOA-10		8260D	5 Bus. Days		

Relinquished By : [signature]
Date / Time : 11-27-24 1435

Received By : [signature]
Date / Time : 11/27/24 14:35 R f 4.6 P27

Storage Area : VOA Refridgerator Room