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

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 : Q1079

ATTENTION : Nathan Fretz

Laboratory Certification ID # 20012

Table Of Contents for Q1079

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Cover Page

Order ID : Q1079

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

Client : Weston Solutions

Lab Sample Number	Client Sample Number
Q1079-01	TAPIAL3-SB04D-R-10-010925-00-T1

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: 1/22/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Weston Solutions
Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Project # N/A
Chemtech Project # Q1079
Test Name: pH,TOC

A. Number of Samples and Date of Receipt:
1 Solid sample was received on 01/14/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-TAL, METALS-TAL, pH and TOC. This data package contains results for pH,TOC.

C. Analytical Techniques:
The analysis of pH was based on method 9045D and The analysis of TOC was based on method 9060A.

D. QA/ QC Samples:
The Holding Times were met for all samples except for TAPIAL3-SB04D-R-10-010925-00-T1 of pH as sample was receive out of holding time.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Matrix Spike 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.

Signature_____

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

ALLIANCE 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1079 MATRIX: Solid

METHOD: 9045D,9060A

		NA	NO	YES
1.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
2.	Matrix Spike Duplicate Recoveries Met Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Blank Spike met requirements for all samples.			
3.	Sample Duplicate Analysis Met QC Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
4.	Digestion Holding Time Met		✓	
	If not met, list number of days exceeded for each sample:			
	The Holding Times were met for all samples except for TAPIAL3-SB04D-R-10-010925-00-T1 of pH as sample was receive out of holding time.			

ADDITIONAL COMMENTS:

_____ _____

QA REVIEW Date

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1079

	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: SOHIL JODHANI **Date:** 01/22/2025

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LAB CHRONICLE

OrderID:	Q1079	**OrderDate:**	1/14/2025 10:14:00 AM
Client:	Weston Solutions	**Project:**	Ft Meade Tipton Airfield Parcel RI - PO 0111169
Contact:	Nathan Fretz	**Location:**	N31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1079-01	**TAPIAL3-SB04D-R-10 -010925-00-T1**	**SOIL**			**01/09/25 15:30**			**01/14/25**
			pH	9045D			01/15/25 08:25	
			TOC	9060A			01/22/25 10:44	

SAMPLE DATA

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Report of Analysis

Client:	Weston Solutions	Date Collected:	01/09/25 15:30
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	01/14/25
Client Sample ID:	TAPIAL3-SB04D-R-10-010925-00-T1	SDG No.:	Q1079
Lab Sample ID:	Q1079-01	Matrix:	SOIL
		% Solid:	88.2

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
pH	4.16	H	1	0	0	0	pH		01/15/25 08:25	9045D
TOC	758		1	19.8	50.0	250	mg/Kg		01/22/25 10:44	9060A

Comments: pH result reported at temperature 20.7 °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

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Initial and Continuing Calibration Verification

Client:	Weston Solutions	**SDG No.:**	Q1079
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**RunNo.:**	LB134290

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**ICV**						
pH		pH	7.00	7	100	90-110	01/15/2025
Sample ID:	**CCV1**						
pH		pH	2.01	2.00	101	90-110	01/15/2025
Sample ID:	**CCV2**						
pH		pH	12.02	12.00	100	90-110	01/15/2025

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Initial and Continuing Calibration Verification

Client:	Weston Solutions	**SDG No.:**	Q1079
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**RunNo.:**	LB134316

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**CCV1**						
TOC		mg/L	1040	1000	104	90-110	01/22/2025
Sample ID:	**CCV2**						
TOC		mg/L	1050	1000	105	90-110	01/22/2025
Sample ID:	**ICV1**						
TOC		mg/L	934	1000	93	90-110	11/12/2024

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Initial and Continuing Calibration Blank Summary

Client:	Weston Solutions	**SDG No.:**	Q1079
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**RunNo.:**	LB134316

Analyte		Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	CCB1							
TOC		mg/L	< 125.0000	125.0000	U	22.3	250	01/22/2025
Sample ID:	CCB2							
TOC		mg/L	< 125.0000	125.0000	U	22.3	250	01/22/2025
Sample ID:	ICB1							
TOC		mg/L	< 125.0000	125.0000	U	22.3	250	11/12/2024

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Preparation Blank Summary

Client: Weston Solutions **SDG No.:** Q1079

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB134316BLS							
TOC	mg/Kg	< 125.0000	125.0000	U	19.8	250	01/22/2025

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Matrix Spike Summary

Client: Weston Solutions
SDG No.: Q1079
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1079-01
Client ID: TAPIAL3-SB04D-R-10-010925-00-T1MS
Percent Solids for Spike Sample: 88.2

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
TOC	mg/Kg	75-125	1670		758		1000	1	91		01/22/2025

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Matrix Spike Summary

Client: Weston Solutions
SDG No.: Q1079
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1079-01
Client ID: TAPIAL3-SB04D-R-10-010925-00-T1MSD
Percent Solids for Spike Sample: 88.2

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
TOC	mg/Kg	75-125	1670		758		1000	1	91		01/22/2025

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Duplicate Sample Summary

Client: Weston Solutions
SDG No.: Q1079
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1079-01
Client ID: TAPIAL3-SB04D-R-10-010925-00-T1DUP
Percent Solids for Spike Sample: 88.2

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
pH	pH	+/-20	4.16		4.17		1	0.24		01/15/2025

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Duplicate Sample Summary

Client: Weston Solutions
SDG No.: Q1079
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1079-01
Client ID: TAPIAL3-SB04D-R-10-010925-00-T1MSD
Percent Solids for Spike Sample: 88.2

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TOC	mg/Kg	+/-20	1670		1670		1	0		01/22/2025

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Laboratory Control Sample Summary

Client:	Weston Solutions	**SDG No.:**	Q1079
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**Run No.:**	LB134316

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB134316BSS								
TOC	mg/Kg	1000	1040		104	1	90-110	01/22/2025

RAW DATA

Reviewed By:Iwona
On:1/15/2025 9:42:48 AM
Inst Id :WC PH METER-1

Analytical Summary Report

Analysis Method: 9045D
Analyst By : jignesh
Parameter: pH
Supervisor Review By : Iwona
Run Number: LB134290
Slope : 98.5
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)	W3161
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	20.2	4.01	01/15/2025	08:05
2	CAL2	1	Water	NA	NA	20.2	7.00	01/15/2025	08:06
3	CAL3	1	Water	NA	NA	20.2	10.02	01/15/2025	08:10
4	ICV	1	Water	NA	NA	20.2	7.00	01/15/2025	08:15
5	CCV1	1	Water	NA	NA	20.2	2.01	01/15/2025	08:17
6	Q1079-01	1	Solid	20.02	20	20.7	4.16	01/15/2025	08:25
7	Q1079-01DUP	1	Solid	20.03	20	20.8	4.17	01/15/2025	08:26
8	CCV2	1	Water	NA	NA	20.2	12.02	01/15/2025	08:30

WORKLIST(Hardcopy Internal Chain)

WO 134290

WorkList Name : ph s q1079 **WorkList ID :** 186911 **Department :** Wet-Chemistry **Date :** 01-15-2025 07:48:54

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1079-01	TAPIAL3-SB04D-R-10-010925-(	Solid	pH	Cool 4 deg C	WEST04	N31	01/09/2025	9045D

Date/Time 01.15.25 07:55

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Date/Time 01.15.25 10:00

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Sample Results Report Print Date/Time: 2025/01/22 12:09:30

Sample ID	Result	Std. Dev.	RSD	Mode	ALT
CCV1	1037.5884			TOC	
CCV1	1033.2350			TOC	
CCV1	1034.4170			TOC	
CCV1	1035.7896	..	...	TOC	..
CCB1	15.4680			TOC	
CCB1	7.7553			TOC	
CCB1	32.1791	..	...	TOC	..
CCB1	5.6137			TOC	
LB134316BLS	4.1656			TOC	
LB134316BLS	3.3097	..	...	TOC	..
LB134316BLS	3.9300			TOC	
LB134316BLS	5.2917			TOC	
LB134316BSS	1017.2634	..	...	TOC	..
LB134316BSS	1049.6700			TOC	
LB134316BSS	1048.5825			TOC	
LB134316BSS	1057.9760	..	...	TOC	..
Q1079-01	716.7088			TOC	
Q1079-01	873.1593			TOC	
Q1079-01	592.5134	..	...	TOC	..
Q1079-01	849.9241			TOC	
Q1079-01MS	1792.3340			TOC	
Q1079-01MS	2007.8275	..	...	TOC	..
Q1079-01MS	1400.9258			TOC	
Q1079-01MS	1495.8866			TOC	
Q1079-01MSD	1223.5074	..	...	TOC	..
Q1079-01MSD	1807.6082			TOC	
Q1079-01MSD	1723.8792			TOC	
Q1079-01MSD	1920.4154	..	...	TOC	..
CCV2	1093.4238			TOC	
CCV2	1083.8333			TOC	
CCV2	1043.7572	..	...	TOC	..
CCV2	974.6683			TOC	
CCB2	7.6765			TOC	
CCB2	13.0817	..	...	TOC	..
CCB2	36.3979			TOC	
CCB2	5.3876			TOC	

Sample Results Report Print Date/Time: 2025/01/22 12:09:30

Method ID	Sample Type	Vial	Timestamp	Message
Boat Sampler	Sample		2025/01/22 09:28	
Boat Sampler	Sample		2025/01/22 09:31	
Boat Sampler	Sample		2025/01/22 09:33	
Boat Sampler	...Sample	..	..2025/01/22 09:36	..
Boat Sampler	Sample		2025/01/22 09:50	
Boat Sampler	Sample		2025/01/22 09:53	Low Sample Detected
Boat Sampler	...Sample	..	..2025/01/22 09:55	..
Boat Sampler	Sample		2025/01/22 09:59	Low Sample Detected
Boat Sampler	Sample		2025/01/22 10:03	Low Sample Detected
Boat Sampler	...Sample	..	..2025/01/22 10:06	..Low Sample Detected
Boat Sampler	Sample		2025/01/22 10:10	Low Sample Detected
Boat Sampler	Sample		2025/01/22 10:13	Low Sample Detected
Boat Sampler	...Sample	..	..2025/01/22 10:16	..
Boat Sampler	Sample		2025/01/22 10:18	
Boat Sampler	Sample		2025/01/22 10:21	
Boat Sampler	...Sample	..	..2025/01/22 10:27	..
Boat Sampler	Sample		2025/01/22 10:35	
Boat Sampler	Sample		2025/01/22 10:38	
Boat Sampler	...Sample	..	..2025/01/22 10:41	..
Boat Sampler	Sample		2025/01/22 10:44	
Boat Sampler	Sample		2025/01/22 10:47	
Boat Sampler	...Sample	..	..2025/01/22 10:54	..
Boat Sampler	Sample		2025/01/22 10:59	
Boat Sampler	Sample		2025/01/22 11:01	
Boat Sampler	...Sample	..	..2025/01/22 11:15	..
Boat Sampler	Sample		2025/01/22 11:22	
Boat Sampler	Sample		2025/01/22 11:25	
Boat Sampler	...Sample	..	..2025/01/22 11:30	..
Boat Sampler	Sample		2025/01/22 11:35	
Boat Sampler	Sample		2025/01/22 11:38	
Boat Sampler	...Sample	..	..2025/01/22 11:41	..
Boat Sampler	Sample		2025/01/22 11:44	
Boat Sampler	Sample		2025/01/22 11:47	Low Sample Detected
Boat Sampler	...Sample	..	..2025/01/22 11:51	..Low Sample Detected
Boat Sampler	Sample		2025/01/22 11:53	
Boat Sampler	Sample		2025/01/22 11:57	Low Sample Detected

Detailed Analysis Report Print Date/Time: 2025/01/22 12:09:46

Sample ID: CCV1 Mode: TOC
Method: Boat Sampler Filename: 01220927
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 09:28
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1037.5884	41.5035	2938923	-2.727	-1.731	71

Sample ID: CCV1 Mode: TOC
Method: Boat Sampler Filename: 01220929
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 09:31
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1033.2350	41.3294	2926593	-2.533	-1.539	67

Sample ID: CCV1 Mode: TOC
Method: Boat Sampler Filename: 01220932
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 09:33
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1034.4170	41.3767	2929941	-2.586	-1.591	68

Sample ID: CCV1 Mode: TOC
Method: Boat Sampler Filename: 01220934
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 09:36
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1035.7896	41.4316	2933828	-2.535	-1.542	70

Sample ID: CCB1 Mode: TOC
Method: Boat Sampler Filename: 01220948
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 09:50
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15.4680	0.6187	43812	-2.914	-1.919	39

Sample ID: CCB1 Mode: TOC
Method: Boat Sampler Filename: 01220951
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 09:53
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7.7553	0.3102	21967	-2.927	-2.964	120

Last Message: Low Sample Detected

Sample ID: CCB1 Mode: TOC
Method: Boat Sampler Filename: 01220954
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 09:55
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32.1791	1.2872	91146	-2.926	-1.930	48

Sample ID: CCB1 Mode: TOC
Method: Boat Sampler Filename: 01220956
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 09:59
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.6137	0.2245	15901	-2.937	-2.969	120

Last Message: Low Sample Detected

Sample ID: LB134316BLS Mode: TOC
Method: Boat Sampler Filename: 01221000
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:03
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.1656	0.1666	11799	-2.999	-3.002	120

Last Message: Low Sample Detected

Sample ID: LB134316BLS Mode: TOC
Method: Boat Sampler Filename: 01221003
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:06
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.3097	0.1324	9374	-3.008	-3.044	120

Last Message: Low Sample Detected

Sample ID: LB134316BLS Mode: TOC
Method: Boat Sampler Filename: 01221007
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:10
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.9300	0.1572	11131	-3.016	-3.053	120

Last Message: Low Sample Detected

Sample ID: LB134316BLS Mode: TOC
Method: Boat Sampler Filename: 01221010

Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:13
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.2917	0.2117	14988	-3.051	-3.046	120

Last Message: Low Sample Detected

Sample ID: LB134316BSS Mode: TOC
Method: Boat Sampler Filename: 01221014
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:16
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1017.2634	40.6905	2881354	-3.044	-2.050	70

Sample ID: LB134316BSS Mode: TOC
Method: Boat Sampler Filename: 01221017
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:18
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1049.6700	41.9868	2973144	-2.883	-1.889	71

Sample ID: LB134316BSS Mode: TOC
Method: Boat Sampler Filename: 01221019
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:21
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1048.5825	41.9433	2970064	-2.862	-1.865	71

Sample ID: LB134316BSS Mode: TOC
Method: Boat Sampler Filename: 01221025
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:27
Operator ID: NF IZ
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1057.9760	42.3190	2996670	-3.075	-2.076	75

Sample ID: Q1079-01 Mode: TOC
Method: Boat Sampler Filename: 01221033
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:35
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	716.7088	4.5869	324807	-3.034	-2.049	47

Sample ID: Q1079-01 Mode: TOC

Method: Boat Sampler Filename: 01221037
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:38
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	873.1593	6.1121	432807	-3.073	-2.076	50

Sample ID: Q1079-01 Mode: TOC
Method: Boat Sampler Filename: 01221040
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:41
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	592.5134	3.3181	234958	-3.075	-2.083	45

Sample ID: Q1079-01 Mode: TOC
Method: Boat Sampler Filename: 01221043
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:44
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	849.9241	5.4395	385180	-3.087	-2.089	49

Sample ID: Q1079-01MS Mode: TOC
Method: Boat Sampler Filename: 01221045
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:47
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1792.3340	12.0086	850348	-3.078	-2.083	53

Sample ID: Q1079-01MS Mode: TOC
Method: Boat Sampler Filename: 01221052
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:54
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2007.8275	11.2438	796192	-3.150	-2.152	56

Sample ID: Q1079-01MS Mode: TOC
Method: Boat Sampler Filename: 01221057
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 10:59
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1400.9258	8.6857	615049	-3.174	-2.180	52

Sample ID: Q1079-01MS Mode: TOC
Method: Boat Sampler Filename: 01221100
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:01

Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1495.8866	11.2191	794444	-3.038	-2.050	53

Sample ID: Q1079-01MSD Mode: TOC
Method: Boat Sampler Filename: 01221113
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:15
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1223.5074	7.7081	545821	3.312	4.227	37

Sample ID: Q1079-01MSD Mode: TOC
Method: Boat Sampler Filename: 01221120
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:22
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1807.6082	12.2917	870395	-3.183	-2.186	57

Sample ID: Q1079-01MSD Mode: TOC
Method: Boat Sampler Filename: 01221124
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:25
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1723.8792	13.4463	952148	-3.164	-2.173	57

Sample ID: Q1079-01MSD Mode: TOC
Method: Boat Sampler Filename: 01221129
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:30
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1920.4154	10.5623	747930	-3.234	-2.243	52

Sample ID: CCV2 Mode: TOC
Method: Boat Sampler Filename: 01221133
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:35
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1093.4238	43.7370	3097075	-3.223	-2.224	74

Sample ID: CCV2 Mode: TOC
Method: Boat Sampler Filename: 01221136
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:38
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1083.8333	43.3533	3069910	-3.171	-2.173	72

Sample ID: CCV2 Mode: TOC
Method: Boat Sampler Filename: 01221139
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:41
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1043.7572	41.7503	2956396	-2.942	-1.949	66

Sample ID: CCV2 Mode: TOC
Method: Boat Sampler Filename: 01221142
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:44
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	974.6683	38.9867	2760705	-3.120	-2.121	69

Sample ID: CCB2 Mode: TOC
Method: Boat Sampler Filename: 01221145
Cal. Curve: TOC S
OIL Timestamp: 2025/01/22 11:47
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7.6765	0.3071	21743	-3.114	-3.252	120

Last Message: Low Sample Detected

Sample ID: CCB2 Mode: TOC
Method: Boat Sampler Filename: 01221148
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:51
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13.0817	0.5233	37053	-3.278	-3.286	120

Last Message: Low Sample Detected

Sample ID: CCB2 Mode: TOC
Method: Boat Sampler Filename: 01221151
Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:53
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36.3979	1.4559	103096	-3.254	-2.266	42

Sample ID: CCB2 Mode: TOC
Method: Boat Sampler Filename: 01221154

Cal. Curve: TOC SOIL Timestamp: 2025/01/22 11:57
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.3876	0.2155	15260	-3.253	-3.294	120

Last Message: Low Sample Detected

Sample Results Report Print Date/Time: 2024/11/12 17:13:44

Sample ID	Result	Std. Dev.	RSD	Mode	ALT
BLANK	9263	5695	61.48	TOC	
250mg/l	813930	31881	3.92	TOC	
500mg/l	1580916	138813	8.78	TOC	
1000mg/l.....	2797885...	74757..	2.67...	TOC	..
2000mg/l	5752648	21216	0.37	TOC	
ICV	943.9813			TOC	
ICV.....	919.2893...	..	...	TOC	..
ICV	940.0988			TOC	
ICV	933.3373			TOC	
ICB.....	4.4514...	..	...	TOC	..
ICB	9.3085			TOC	
ICB	6.7305			TOC	
ICB.....	7.5078...	..	...	TOC	..

Sample Results Report Print Date/Time: 2024/11/12 17:13:44

Method ID	Sample Type	Vial	Timestamp	Message
Boat Sampler	TOC Standard		2024/11/12 11:01	Low Sample Detected
Boat Sampler	TOC Standard		2024/11/12 11:15	
Boat Sampler	TOC Standard		2024/11/12 11:27	
Boat Sampler	...TOC Standard	..	..2024/11/12 11:36	..
Boat Sampler	TOC Standard		2024/11/12 12:05	
Boat Sampler	Sample		2024/11/12 12:12	
Boat Sampler	...Sample	..	..2024/11/12 12:14	..
Boat Sampler	Sample		2024/11/12 12:16	
Boat Sampler	Sample		2024/11/12 12:18	
Boat Sampler	...Sample	..	..2024/11/12 12:23	..Low Sample Detected
Boat Sampler	Sample		2024/11/12 12:26	Low Sample Detected
Boat Sampler	Sample		2024/11/12 12:29	Low Sample Detected
Boat Sampler	...Sample	..	..2024/11/12 12:32	..Low Sample Detected

Detailed Analysis Report Print Date/Time: 2024/11/12 17:14:04

Sample ID: BLANK Mode: TOC
Method: Boat Sampler Filename: 11121049
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 11:01
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			15553	-2.075	-2.098	120
2			1727	-2.021	-2.147	120
3			9608	-2.149	-2.198	120
4			10164	-2.127	-2.213	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 9263 Std Dev: 5695 RSD: 61.48

Sample ID: 250mg/l Mode: TOC
Method: Boat Sampler Filename: 11121108
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 11:15
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			804219	-2.222	-1.226	44
2			860284	-2.138	-1.145	79
3			803824	-2.215	-1.219	58
4			787394	-2.222	-1.224	54

<<<Statistics>>> Mean: 813930 Std Dev: 31881 RSD: 3.92

Sample ID: 500mg/l Mode: TOC
Method: Boat Sampler Filename: 11121119
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 11:27
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1530483	-2.276	-1.281	53
2			1492472	-2.156	-1.157	95
3			1787829	-2.254	-1.256	63
4			1512882	-2.186	-1.194	55

<<<Statistics>>> Mean: 1580916 Std Dev: 138813 RSD: 8.78

Sample ID: 1000mg/l Mode: TOC
Method: Boat Sampler Filename: 11121128
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 11:36
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2717535	-2.380	-1.381	63
2			2887558	-2.069	-1.076	61
3			2826578	-1.987	-0.990	62
4			2759868	-2.106	-1.108	63

<<<Statistics>>> Mean: 2797885 Std Dev: 74757 RSD: 2.67

Sample ID: 2000mg/l Mode: TOC
Method: Boat Sampler Filename: 11121155
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:05
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5772363	-2.492	-1.493	116
2			5763448	-2.138	-1.139	91
3			5723617	-0.015	0.979	57
4			5751163	-0.355	0.644	62

<<<Statistics>>> Mean: 5752648 Std Dev: 21216 RSD: 0.37

Sample ID: ICV Mode: TOC
Method: Boat Sampler Filename: 11121210
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:12
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	943.9813	37.7593	2673786	-2.569	-1.574	83

Sample ID: ICV Mode: TOC
Method: Boat Sampler Filename: 11121212
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:14
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	919.2893	36.7716	2603846	-2.379	-1.380	64

Sample ID: ICV Mode: TOC
Method: Boat Sampler Filename: 11121214
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:16
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	940.0988	37.6040	2662788	-2.346	-1.346	61

Sample ID: ICV Mode: TOC
Method: Boat Sampler Filename: 11121217
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:18
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	933.3373	37.3335	2643637	-2.443	-1.445	63

Sample ID: ICB Mode: TOC
Method: Boat Sampler Filename: 11121220
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:23
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.4514	0.1781	12608	-2.598	-2.685	120

Last Message: Low Sample Detected
==========

Sample ID: ICB Mode: TOC
Method: Boat Sampler Filename: 11121223
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:26
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9.3085	0.3723	26366	-2.661	-2.693	120

Last Message: Low Sample Detected
==========

Sample ID: ICB Mode: TOC
Method: Boat Sampler Filename: 11121226
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:29
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6.7305	0.2692	19064	-2.649	-2.682	120

Last Message: Low Sample Detected
==========

Sample ID: ICB Mode: TOC
Method: Boat Sampler Filename: 11121230
Cal. Curve: TOC SOIL Timestamp: 2024/11/12 12:32
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7.5078	0.3003	2			
1266	-2.657	-2.679	120			

Last Message: Low Sample Detected
==========

Calibration Report Print Date/Time: 2024/11/12 12:05:31

Cal. Curve ID: TOC SOIL
Created: 2024/11/12 12:05
Calibration Factor (m): 7.081e+04
Y Intercept (b): 66586
r-squared: 0.99875

Re

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
BLANK	9263	0.000	-0.810		2024/11/12 11:01
250mg/l	813930	10.000	10.554	5.5	2024/11/12 11:15
500mg/l	1580917	20.000	21.385	6.9	2024/11/12 11:27
1000mg/l	2797884	40.000	38.571	-3.6	2024/11/12 11:36
2000mg/l	5752648	80.000	80.299	0.4	2024/11/12 12:05

12
11/12/24

LB134316

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TOC S-01172025 **WorkList ID :** 186986 **Department :** Wet-Chemistry **Date :** 01-17-2025 09:26:00

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1079-01	TAPIAL3-SB04D-R-10-010925-(	Solid	TOC	Cool 4 deg C	WEST04	N31	01/09/2025	9060A

Date/Time 01.22.2025, 08:55

Raw Sample Received by: NF(WC)

Raw Sample Relinquished by: MW(C)

Date/Time 01.22.2025, 11:00

Raw Sample Received by: MW(C)

Raw Sample Relinquished by: NF(WC)

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

Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134290

Review By	jignesh	Review On	1/15/2025 8:12:54 AM
Supervise By	Iwona	Supervise On	1/15/2025 9:42:48 AM
SubDirectory	LB134290	Test	pH

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,W3161,W3072

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	01/15/25 08:05		Jignesh	OK
2	CAL2	CAL2	CAL	01/15/25 08:06		Jignesh	OK
3	CAL3	CAL3	CAL	01/15/25 08:10		Jignesh	OK
4	ICV	ICV	ICV	01/15/25 08:15		Jignesh	OK
5	CCV1	CCV1	CCV	01/15/25 08:17		Jignesh	OK
6	Q1079-01	TAPIAL3-SB04D-R-10	SAM	01/15/25 08:25		Jignesh	OK
7	Q1079-01DUP	TAPIAL3-SB04D-R-10	DUP	01/15/25 08:26		Jignesh	OK
8	CCV2	CCV2	CCV	01/15/25 08:30		Jignesh	OK

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Fax : 908 789 8922

Instrument ID: TOC

Daily Analysis Runlog For Sequence/QCBatch ID # LB134316

Review By	Niha	Review On	1/22/2025 1:54:42 PM
Supervise By	Iwona	Supervise On	1/22/2025 4:38:05 PM
SubDirectory	LB134316	Test	TOC

STD. NAME	STD REF.#
ICAL Standard	WP110667,WP110662,WP110663,WP110664,WP110665
ICV Standard	WP110666
CCV Standard	WP111508
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP111509
Chk Standard	WP109225

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	BLANK	BLANK	CAL1	11/12/24 11:01		NF IZ	OK
2	250mg/l	250mg/l	CAL2	11/12/24 11:15		NF IZ	OK
3	500mg/l	500mg/l	CAL3	11/12/24 11:27		NF IZ	OK
4	1000mg/l	1000mg/l	CAL4	11/12/24 11:36		NF IZ	OK
5	2000mg/l	2000mg/l	CAL5	11/12/24 12:05		NF IZ	OK
6	ICV1	ICV1	ICV	11/12/24 12:18		NF IZ	OK
7	ICB1	ICB1	ICB	11/12/24 12:32		NF IZ	OK
8	CCV1	CCV1	CCV	01/22/25 09:36		NF IZ	OK
9	CCB1	CCB1	CCB	01/22/25 09:59		NF IZ	OK
10	LB134316BLS	LB134316BLS	MB	01/22/25 10:13		NF IZ	OK
11	LB134316BSS	LB134316BSS	LCS	01/22/25 10:27		NF IZ	OK
12	Q1079-01	TAPIAL3-SB04D-R-10	SAM	01/22/25 10:44		NF IZ	OK
13	Q1079-01MS	TAPIAL3-SB04D-R-10	MS	01/22/25 11:01	sample + 40ul of WP111508	NF IZ	OK
14	Q1079-01MSD	TAPIAL3-SB04D-R-10	MSD	01/22/25 11:30	sample + 40ul of WP111508	NF IZ	OK
15	CCV2	CCV2	CCV	01/22/25 11:44		NF IZ	OK
16	CCB2	CCB2	CCB	01/22/25 11:57		NF IZ	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q1079

Test : Percent Solids,pH,TOC

Prepbatch ID :

Sequence ID/Qc Batch ID: LB134290,LB134316,

Standard ID :
WP109217,WP109218,WP109225,WP110662,WP110663,WP110664,WP110665,WP110666,WP110667,WP111436,WP111437,WP111508,WP111509,

Chemical ID :
W2784,W2860,W3071,W3072,W3093,W3094,W3107,W3111,W3112,W3161,W3169,

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
2050	TOC STOCK STD, 4000PPM	WP109217	08/07/2024	01/18/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 08/16/2024

FROM 5.00000ml of W2860 + 8.51200gram of W3111 + 990.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2051	TOC STOCK STD-SS, 4000PPM	WP109218	08/07/2024	02/07/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 08/16/2024

FROM 5.00000ml of W2860 + 8.51200gram of W2784 + 990.00000ml of W3112 = Final Quantity: 1000.000 ml

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
2435	1:1 PHOSPHORIC ACID FOR TOC SOILS	WP109225	08/07/2024	02/07/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 08/16/2024

FROM 50.00000ml of W2860 + 50.00000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
712	TOC SOIL cal 250ppm	WP110662	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/14/2024

FROM 15.00000ml of W3112 + 1.00000ml of WP109217 = Final Quantity: 16.000 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
710	TOC SOIL cal 500ppm	WP110663	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/14/2024

FROM 14.00000ml of W3112 + 2.00000ml of WP109217 = Final Quantity: 16.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3544	TOC SOIL Cal- CCV 1000PPM	WP110664	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/14/2024

FROM 15.00000ml of W3112 + 5.00000ml of WP109217 = Final Quantity: 20.000 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
713	TOC SOIL cal 2000ppm	WP110665	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/14/2024

FROM 5.00000ml of W3112 + 5.00000ml of WP109217 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2819	TOC ICV-LCSS, 1000PPM	WP110666	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/14/2024

FROM 15.00000ml of W3112 + 5.00000ml of WP109218 = 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
304	TOC CAL 0.00ppm	WP110667	11/12/2024	11/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 11/14/2024

FROM 100.00000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2050	TOC STOCK STD, 4000PPM	WP111436	01/15/2025	07/15/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 5.00000ml of W2860 + 8.51200gram of W3169 + 990.00000ml of W3112 = 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
2051	TOC STOCK STD-SS, 4000PPM	WP111437	01/15/2025	06/30/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 5.00000ml of W2860 + 8.51200gram of W2784 + 990.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3544	TOC SOIL Cal- CCV 1000PPM	WP111508	01/22/2025	01/29/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/22/2025

FROM 15.00000ml of W3112 + 5.00000ml of WP111436 = Final Quantity: 20.000 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
2819	TOC ICV-LCSS, 1000PPM	WP111509	01/22/2025	01/29/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/22/2025

FROM 15.00000ml of W3112 + 5.00000ml of WP111437 = Final Quantity: 20.000 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.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	201089	06/30/2025	12/23/2020 / apatel	12/16/2020 / apatel	W2784

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0260-3 / Phosphoric Acid, 2.5 L	0000278313	01/31/2026	07/12/2021 / apatel	07/12/2021 / apatel	W2860

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 / lwona	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 / lwona	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.	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 #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	24A1956910	01/18/2025	06/26/2024 / Iwona	06/26/2024 / Iwona	W3111

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.	AL13850-1 / Buffer Solution, PH2 (500ml)	2411E26	10/31/2026	12/09/2024 / Iwona	12/09/2024 / Iwona	W3161

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	24H0956262	04/28/2026	01/03/2025 / Iwona	01/03/2025 / Iwona	W3169

Phosphoric Acid
BAKER ANALYZED® A.C.S. Reagent

(orthophosphoric acid)

Material No.: 0260-03
Batch No.: 0000278313
Manufactured Date: 2021/02/01
Retest Date: 2026/01/31
Revision No: 2

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay (H_3PO_4) (by acidimetry)	85.0 - 87.0 %	85.8
Calcium (Ca)	<= 0.002 %	< 0.001
Color (APHA)	<= 10	5
Insoluble Matter	<= 0.001 %	< 0.001
ACS - Magnesium (Mg)	<= 0.002 %	<0.002
Sulfate (SO_4)	<= 12 ppm	< 4
Volatile Acids (as CH_3COOH)	<= 0.001 %	0.001
Reducing Substances	Passes Test	PT
Chloride (Cl)	<= 3 ppm	< 1
Nitrate (NO_3)	<= 5 ppm	< 2
Trace Impurities - Antimony (Sb)	<= 20.000 ppm	0.007
Trace Impurities - Arsenic (As)	<= 0.500 ppm	< 0.001
Trace Impurities - Iron (Fe)	<= 10.000 ppm	< 1.000
Heavy Metals (as Pb)	<= 8 ppm	< 3
Trace Impurities - Manganese (Mn)	<= 0.500 ppm	0.005
Trace Impurities - Potassium (K)	<= 40.000 ppm	< 0.001
Trace Impurities - Sodium (Na)	<= 200.000 ppm	0.082

For Laboratory, Research or Manufacturing Use
Exceeds A.C.S. Specifications
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US
Packaging Site: Phillipsburg 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

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W3071
Rec 12/6/23

Certificate of Analysis

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

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W3072
rec. 12/01/23
12

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

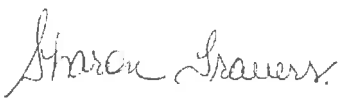
Test	Specification	Result	
Appearance	Colorless liquid	Passed	*Not a certified value.

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

ThermoFisher SCIENTIFIC

Certificate of Analysis

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

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

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

Catalog Number	P243	Quality Test / Release Date	06/19/2020
Lot Number	201089		
Description	POTASSIUM HYDROGEN PHTHALATE,ACIDIMETRIC STANDARD, A.C.S.		
Country of Origin	Spain	Suggested Retest Date	Jun/2025
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	WHITE CRYSTALS
ASSAY POTASSIUM HYDROGEN PHTHALATE	%	Inclusive Between 99.95 - 100.05	100.03
CHLORINE COMPOUNDS	%	<= 0.003	<0.003
HEAVY METALS (as Pb)	ppm	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5
PH OF 0.05M SOLUTION		Inclusive Between 4.00 - 4.02	4.00
SODIUM (Na)	%	<= 0.005	<0.005
SULFUR COMPOUNDS	%	<= 0.002	<0.002%
TRACEABLE TO NIST	SOD CARBONATE	= LOT 351a	351a
TRACEABLE TO NIST KHP STD	POT. ACID PHTHALATE	= LOT 84L	84L

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

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

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W3093 09412.. 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 78 opuc: 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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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

Certificate of Analysis

POTASSIUM HYDROGEN PHTHALATE

Material: **N983**

Grade: **ACS GRADE**

Batch Number: **24A1956910**

Chemical Formula: HOOCC6H4COOK
Molecular Weight: 204.22
CAS #: 877-24-7
Appearance:

White crystals.

Manufacture Date: 01/19/2022
Reassay Date: 01/18/2025

Storage: Room Temperature

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Assay (dried basis)	99.95 - 100.05 %	99.97 %	PASS
Chlorine Compounds	<= 0.003 %	<0.003 %	PASS
Heavy Metals (as Pb)	<= 5 ppm	<5 ppm	PASS
Insoluble Matter	<= 0.005 %	0.003 %	PASS
Iron	<= 5 ppm	<5 ppm	PASS
pH (0.05M, Water) @25C	4.00 - 4.02	4.00	PASS
Sodium	<= 0.005 %	<0.005 %	PASS
Sulfur Compounds	<= 0.002 %	<0.002 %	PASS

Spec Set: N983ACS

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.

RICCA CHEMICAL COMPANY®
W3161 Rec. on 12/09/24 by IZ

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

Certificate of Analysis

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

Lot Number: 2411E26 **Product Number:** 1493

Manufacture Date: NOV 11, 2024
Expiration Date: OCT 2026

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

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

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

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

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

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

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

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

Jose Pena (11/11/2024)
Operations Manager

This product was tested in an ISO 17025 Accredited Laboratory

Certificate of Analysis

Material	BDH9260-500G
Material Description	BDH POTASS HYDRGN PHTHLTE 500G
Grade	ACS GRADE
Batch	24H0956262
Reassay Date	04/28/2026
CAS Number	877-24-7
Molecular Formula	HOOCC6H4COOK
Molecular Mass	204.22
Date of Manufacture	04/29/2023
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	White crystals.	White crystals.
Assay (dried basis)	99.95 - 100.05 %	99.98 %
Chlorine Compounds	<= 0.003 %	<0.003 %
Heavy Metals (as Pb)	<= 5 ppm	<5 ppm
Insoluble Matter	<= 0.005 %	0.003 %
Iron	<= 5 ppm	<5 ppm
pH (0.05M, Water) @25C	4.00 - 4.02	4.00
Sodium	<= 0.005 %	<0.005 %
Sulfur Compounds	<= 0.002 %	<0.002 %

Internal ID #: 322

Signature

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

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

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

Additional Information

Analysis may have been rounded to significant digits in specification limits

Product meets analytical specifications of the grades listed.

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/15/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 16:30
In Date: 01/14/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:00
Out Date: 01/15/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB134282

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
Q1079-01	TAPIAL3-SB04D-R-10-010925-00-T1	1	1.17	8.58	9.75	8.74	88.2	

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

Q1079-GENCHEM

WORKLIST(Hardcopy Internal Chain)

UB 134282

WorkList Name : %1-011425 **WorkList ID :** 186907 **Department :** Wet-Chemistry **Date :** 01-14-2025 09:16:31

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1079-01	TAPIAL3-SB04D-R-10-010925-I	Solid	Percent Solids	Cool 4 deg C	WEST04	N31	01/09/2025	Chemtech -SO

Date/Time 01-14-25 15:00

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Date/Time 01-14-25 17:00

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

SHIPPING DOCUMENTS

Q1079

Weston COC ID
Weston_20250113_1346

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@westonsolutions.com		
Sampled By:	Cheyenne Harrington		

Project Name:	Fort Meade RI	Project POC:	Nathan Fretz
PO Number	0111169	Phone:	484-524-5665
W.O. #:		POC e-mail:	nathan.fretz@westonsolutions.com
Lab:	CHEMTECH	Lab POC:	Jordan Hedvat
TAT (days):	21	Lab Phone:	908-728-3144
Lab Address:	284 Sheffield Street Mountainside, NJ 07092		

Matrix Codes
SS - Soil
SE - Sediment
SO - Solid
SL - Sludge
GW - Groundwater
W - Water
SB - Soil Boring
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

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

Analyses Requested:	Metals w Hg by EPA 6020B and 7470A	pH by EPA 9045D	TOC by 9060A									
Container Type:	Glass	Glass	Glass									
Container Size:	8 oz	8 oz	8 oz									
Preservative:	Ice to 0-6 deg C	Ice to 0-6 deg C	Ice to 0-6 deg C									

#	Sample ID	G/C	Matrix	# Cont	MS/MSD	Date Collected	Time Collected											Special Instructions/Comments
1	TAPIAL3-SB04D-R-10-010925-00-T1	g	SB	2	no	1/9/2025	15:30	X	X	X								
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Shipping Airbill Number: 771397950517

Cooler Number: 1 of 1

	Relinquished By	Date	Time	Received By	Date	Time	Additional Comments
1.)	Catherington	1/13/25	1440				QSM 6.0 Compliant
2.)	Fed Ex	1/14/25	0920		1/14/25	0920	Deliverable Requirements: DoD Level IV report, EnviroData EDD, and ERIS-compatible EDD
3.)							

1.6° C

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