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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LAB CHRONICLE

OrderID:	P4103	**OrderDate:**	9/18/2024 3:16:00 PM
Client:	ENTACT	**Project:**	North Point
Contact:	Chris Lawrence	**Location:**	J11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4103-01	**WC-22A**	**SOIL**			**09/17/24 11:40**			**09/18/24**
			Cyanide	9012B		09/24/24	09/24/24 17:25	
			Hexavalent Chromium	7196A		09/20/24	09/20/24 17:14	
			Paint Filter	9095B			09/23/24 09:20	
P4103-02	**WC-22A**	**SOIL**			**09/17/24 11:40**			**09/18/24**
			Corrosivity	9045D			09/19/24 16:33	
			Ignitability	1030			09/24/24 09:25	
			Reactive Cyanide	9012B		09/18/24	09/19/24 11:26	
			Reactive Sulfide	9034		09/23/24	09/23/24 11:13	
P4103-03	**WC-22A**	**SOIL**			**09/17/24 11:40**			**09/18/24**
			TS	SM2540 B			09/19/24 11:00	
			TVS	160.4			09/19/24 16:00	
			ASTM Ammonia	SM4500-NH3		09/23/24	09/24/24 10:40	
			ASTM COD	SM5220 D			09/24/24 14:02	
			ASTM Oil and Grease	1664A			09/24/24 11:45	

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LAB CHRONICLE

			ASTM TS	SM2540 B			09/23/24 11:00	
P4103-04	**WC-14-5-7.5A**	**SOIL**			**09/17/24 11:50**			**09/18/24**
			Cyanide	9012B		09/24/24	09/24/24 17:32	
			Hexavalent Chromium	7196A		09/20/24	09/20/24 17:15	
			Paint Filter	9095B			09/23/24 09:27	
P4103-05	**WC-14-5-7.5A**	**SOIL**			**09/17/24 11:50**			**09/18/24**
			Corrosivity	9045D			09/19/24 16:40	
			Ignitability	1030			09/24/24 09:40	
			Reactive Cyanide	9012B		09/18/24	09/19/24 11:26	
			Reactive Sulfide	9034		09/23/24	09/23/24 11:18	
P4103-06	**WC-14-5-7.5A**	**SOIL**			**09/17/24 11:50**			**09/18/24**
			TS	SM2540 B			09/19/24 11:00	
			TVS	160.4			09/19/24 16:00	
			ASTM Ammonia	SM4500-NH3		09/23/24	09/24/24 10:40	
			ASTM COD	SM5220 D			09/24/24 14:04	
			ASTM Oil and Grease	1664A			09/24/24 11:45	
			ASTM TS	SM2540 B			09/23/24 11:00	
P4103-07	**WC-14-5-7.5B**	**SOIL**			**09/17/24 13:30**			**09/18/24**
			Cyanide	9012B		09/24/24	09/24/24 17:32	

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			Hexavalent Chromium	7196A		09/20/24	09/20/24 17:16	
			Paint Filter	9095B			09/23/24 09:35	
P4103-08	**WC-14-5-7.5B**	**SOIL**			**09/17/24 13:30**			**09/18/24**
			Corrosivity	9045D			09/19/24 16:47	
			Ignitability	1030			09/24/24 09:48	
			Reactive Cyanide	9012B		09/18/24	09/19/24 11:26	
			Reactive Sulfide	9034		09/23/24	09/23/24 11:20	
P4103-09	**WC-14-5-7.5B**	**SOIL**			**09/17/24 13:30**			**09/18/24**
			TS	SM2540 B			09/19/24 11:00	
			TVS	160.4			09/19/24 16:00	
			ASTM Ammonia	SM4500-NH3		09/23/24	09/24/24 10:40	
			ASTM COD	SM5220 D			09/24/24 14:04	
			ASTM Oil and Grease	1664A			09/24/24 11:45	
			ASTM TS	SM2540 B			09/23/24 11:00	
P4103-10	**WC-14-7.5-10A**	**SOIL**			**09/17/24 12:35**			**09/18/24**
			Cyanide	9012B		09/24/24	09/24/24 17:40	
			Hexavalent Chromium	7196A		09/20/24	09/20/24 17:17	
			Paint Filter	9095B			09/23/24 09:42	
P4103-11	**WC-14-7.5-10A**	**SOIL**			**09/17/24 12:35**			**09/18/24**

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			Corrosivity	9045D		09/19/24 16:50	
			Ignitability	1030		09/24/24 09:55	
			Reactive Cyanide	9012B	09/18/24	09/19/24 11:26	
			Reactive Sulfide	9034	09/23/24	09/23/24 11:22	
P4103-12	**WC-14-7.5-10A**	**SOIL**			**09/17/24 12:35**		**09/18/24**
			TS	SM2540 B		09/19/24 11:00	
			TVS	160.4		09/19/24 16:00	
			ASTM Ammonia	SM4500-NH3	09/23/24	09/24/24 10:50	
			ASTM COD	SM5220 D		09/24/24 14:05	
			ASTM Oil and Grease	1664A		09/24/24 11:45	
			ASTM TS	SM2540 B		09/23/24 11:00	
P4103-13	**WC-14-7.5-10B**	**SOIL**			**09/17/24 14:20**		**09/18/24**
			Cyanide	9012B	09/24/24	09/24/24 17:40	
			Hexavalent Chromium	7196A	09/20/24	09/20/24 17:18	
			Paint Filter	9095B		09/23/24 09:50	
P4103-14	**WC-14-7.5-10B**	**SOIL**			**09/17/24 14:20**		**09/18/24**
			Corrosivity	9045D		09/19/24 16:55	
			Ignitability	1030		09/24/24 10:15	
			Reactive Cyanide	9012B	09/18/24	09/19/24 11:26	

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			Reactive Sulfide	9034		09/23/24	09/23/24 11:25	
P4103-15	**WC-14-7.5-10B**	**SOIL**			**09/17/24 14:20**			**09/18/24**
			TS	SM2540 B			09/19/24 11:00	
			TVS	160.4			09/19/24 16:00	
			ASTM Ammonia	SM4500-NH3		09/23/24	09/24/24 10:50	
			ASTM COD	SM5220 D			09/24/24 14:05	
			ASTM Oil and Grease	1664A			09/24/24 11:45	
			ASTM TS	SM2540 B			09/23/24 11:00	
P4103-16	**WC-23**	**SOIL**			**09/17/24 14:45**			**09/18/24**
			Cyanide	9012B		09/24/24	09/24/24 17:47	
			Hexavalent Chromium	7196A		09/20/24	09/20/24 17:19	
			Paint Filter	9095B			09/23/24 09:58	
P4103-17	**WC-23**	**SOIL**			**09/17/24 14:45**			**09/18/24**
			Corrosivity	9045D			09/19/24 17:00	
			Ignitability	1030			09/24/24 10:22	
			Reactive Cyanide	9012B		09/18/24	09/19/24 11:32	
			Reactive Sulfide	9034		09/23/24	09/23/24 11:28	
P4103-18	**WC-23**	**SOIL**			**09/17/24 14:45**			**09/18/24**
			TS	SM2540 B			09/19/24 11:00	

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TVS	160.4		09/19/24 16:00
ASTM Ammonia	SM4500-NH3	09/23/24	09/24/24 10:50
ASTM COD	SM5220 D		09/24/24 14:07
ASTM Oil and Grease	1664A		09/24/24 11:45
ASTM TS	SM2540 B		09/23/24 11:00

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SAMPLE DATA

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 11:40
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-22A	SDG No.:	P4103
Lab Sample ID:	P4103-01	Matrix:	SOIL
		% Solid:	92.7

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.047	U	1	0.047	0.26	mg/Kg	09/24/24 09:00	09/24/24 17:25	9012B
Hexavalent Chromium	0.085	U	1	0.085	0.43	mg/Kg	09/20/24 13:30	09/20/24 17:14	7196A
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		09/23/24 09:20	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 11:40
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-22A	SDG No.:	P4103
Lab Sample ID:	P4103-02	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	7.22	H	1	0	0	pH		09/19/24 16:33	9045D
Ignitability	NO		1	0	0	oC		09/24/24 09:25	1030
Reactive Cyanide	0.0088	U	1	0.0088	0.050	mg/Kg	09/18/24 14:45	09/19/24 11:26	9012B
Reactive Sulfide	1.59	J	1	0.19	10.0	mg/Kg	09/23/24 08:50	09/23/24 11:13	9034

Comments: pH result reported at temperature 25.4 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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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.
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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 11:40
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-22A	SDG No.:	P4103
Lab Sample ID:	P4103-03	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ASTM Ammonia	0.045	U	1	0.045	0.10	mg/L	09/23/24 14:35	09/24/24 10:40	SM 4500-NH3 B plus NH3 G-11
ASTM COD	54.1		1	2.35	10.0	mg/L		09/24/24 14:02	SM 5220 D-11
ASTM Oil and Grease	0.40	J	1	0.40	5.00	mg/L		09/24/24 11:45	SW1664A
ASTM TS	213		1	1.00	5.00	mg/L		09/23/24 11:00	SM 2540 B-15

Comments:

U = Not Detected
LOQ = Limit of Quantitation
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LOD = Limit of Detection
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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.
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N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 11:40
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-22A	SDG No.:	P4103
Lab Sample ID:	P4103-03	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TS	93.5		1	1.00	5.00	%		09/19/24 11:00	SM 2540 B-15
TVS	2.20	J	1	1.00	10.0	%		09/19/24 16:00	160.4

Comments:

U = Not Detected
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LOD = Limit of Detection
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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.
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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 11:50
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-5-7.5A	SDG No.:	P4103
Lab Sample ID:	P4103-04	Matrix:	SOIL
		% Solid:	89.8

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.40		1	0.047	0.27	mg/Kg	09/24/24 09:00	09/24/24 17:32	9012B
Hexavalent Chromium	0.087	U	1	0.087	0.44	mg/Kg	09/20/24 13:30	09/20/24 17:15	7196A
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		09/23/24 09:27	9095B

Comments:

U = Not Detected
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MDL = Method Detection Limit
LOD = Limit of Detection
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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
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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:	ENTACT	Date Collected:	09/17/24 11:50
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-5-7.5A	SDG No.:	P4103
Lab Sample ID:	P4103-05	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	10.1	H	1	0	0	pH		09/19/24 16:40	9045D
Ignitability	NO		1	0	0	oC		09/24/24 09:40	1030
Reactive Cyanide	0.0087	U	1	0.0087	0.050	mg/Kg	09/18/24 14:45	09/19/24 11:26	9012B
Reactive Sulfide	4.73	J	1	0.19	10.0	mg/Kg	09/23/24 08:50	09/23/24 11:18	9034

Comments: pH result reported at temperature 25.1 °C

U = Not Detected
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LOD = Limit of Detection
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H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
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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:	ENTACT	Date Collected:	09/17/24 11:50
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-5-7.5A	SDG No.:	P4103
Lab Sample ID:	P4103-06	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ASTM Ammonia	0.045	U	1	0.045	0.10	mg/L	09/23/24 14:35	09/24/24 10:40	SM 4500-NH3 B plus NH3 G-11
ASTM COD	54.1		1	2.35	10.0	mg/L		09/24/24 14:04	SM 5220 D-11
ASTM Oil and Grease	0.70	J	1	0.40	5.00	mg/L		09/24/24 11:45	SW1664A
ASTM TS	205		1	1.00	5.00	mg/L		09/23/24 11:00	SM 2540 B-15

Comments:

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J = Estimated Value
B = Analyte Found in Associated Method Blank
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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 11:50
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-5-7.5A	SDG No.:	P4103
Lab Sample ID:	P4103-06	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TS	90.4		1	1.00	5.00	%		09/19/24 11:00	SM 2540 B-15
TVS	3.50	J	1	1.00	10.0	%		09/19/24 16:00	160.4

Comments:

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 13:30
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-5-7.5B	SDG No.:	P4103
Lab Sample ID:	P4103-07	Matrix:	SOIL
		% Solid:	90.1

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.14	J	1	0.049	0.28	mg/Kg	09/24/24 09:00	09/24/24 17:32	9012B
Hexavalent Chromium	0.087	U	1	0.087	0.44	mg/Kg	09/20/24 13:30	09/20/24 17:16	7196A
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		09/23/24 09:35	9095B

Comments:

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 13:30
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-5-7.5B	SDG No.:	P4103
Lab Sample ID:	P4103-08	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	9.33	H	1	0	0	pH		09/19/24 16:47	9045D
Ignitability	NO		1	0	0	oC		09/24/24 09:48	1030
Reactive Cyanide	0.0087	U	1	0.0087	0.050	mg/Kg	09/18/24 14:45	09/19/24 11:26	9012B
Reactive Sulfide	6.35	J	1	0.19	10.0	mg/Kg	09/23/24 08:50	09/23/24 11:20	9034

Comments: pH result reported at temperature 25.1 °C

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 13:30
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-5-7.5B	SDG No.:	P4103
Lab Sample ID:	P4103-09	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ASTM Ammonia	0.045	U	1	0.045	0.10	mg/L	09/23/24 14:35	09/24/24 10:40	SM 4500-NH3 B plus NH3 G-11
ASTM COD	59.1		1	2.35	10.0	mg/L		09/24/24 14:04	SM 5220 D-11
ASTM Oil and Grease	0.60	J	1	0.40	5.00	mg/L		09/24/24 11:45	SW1664A
ASTM TS	256		1	1.00	5.00	mg/L		09/23/24 11:00	SM 2540 B-15

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 13:30
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-5-7.5B	SDG No.:	P4103
Lab Sample ID:	P4103-09	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TS	90.3		1	1.00	5.00	%		09/19/24 11:00	SM 2540 B-15
TVS	2.50	J	1	1.00	10.0	%		09/19/24 16:00	160.4

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 12:35
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-7.5-10A	SDG No.:	P4103
Lab Sample ID:	P4103-10	Matrix:	SOIL
		% Solid:	85.5

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.17	J	1	0.050	0.28	mg/Kg	09/24/24 09:00	09/24/24 17:40	9012B
Hexavalent Chromium	0.091	U	1	0.091	0.46	mg/Kg	09/20/24 13:30	09/20/24 17:17	7196A
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		09/23/24 09:42	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 12:35
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-7.5-10A	SDG No.:	P4103
Lab Sample ID:	P4103-11	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	7.39	H	1	0	0	pH		09/19/24 16:50	9045D
Ignitability	NO		1	0	0	oC		09/24/24 09:55	1030
Reactive Cyanide	0.0088	U	1	0.0088	0.050	mg/Kg	09/18/24 14:45	09/19/24 11:26	9012B
Reactive Sulfide	3.18	J	1	0.19	10.0	mg/Kg	09/23/24 08:50	09/23/24 11:22	9034

Comments: pH result reported at temperature 25.4 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 12:35
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-7.5-10A	SDG No.:	P4103
Lab Sample ID:	P4103-12	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ASTM Ammonia	0.82		1	0.045	0.10	mg/L	09/23/24 14:35	09/24/24 10:50	SM 4500-NH3 B plus NH3 G-11
ASTM COD	61.0		1	2.35	10.0	mg/L		09/24/24 14:05	SM 5220 D-11
ASTM Oil and Grease	0.80	J	1	0.40	5.00	mg/L		09/24/24 11:45	SW1664A
ASTM TS	566		1	1.00	5.00	mg/L		09/23/24 11:00	SM 2540 B-15

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 12:35
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-7.5-10A	SDG No.:	P4103
Lab Sample ID:	P4103-12	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TS	85.6		1	1.00	5.00	%		09/19/24 11:00	SM 2540 B-15
TVS	3.70	J	1	1.00	10.0	%		09/19/24 16:00	160.4

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 14:20
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-7.5-10B	SDG No.:	P4103
Lab Sample ID:	P4103-13	Matrix:	SOIL
		% Solid:	88.1

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.050	J	1	0.049	0.28	mg/Kg	09/24/24 09:00	09/24/24 17:40	9012B
Hexavalent Chromium	0.088	U	1	0.088	0.45	mg/Kg	09/20/24 13:30	09/20/24 17:18	7196A
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		09/23/24 09:50	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 14:20
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-7.5-10B	SDG No.:	P4103
Lab Sample ID:	P4103-14	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	7.93	H	1	0	0	pH		09/19/24 16:55	9045D
Ignitability	NO		1	0	0	oC		09/24/24 10:15	1030
Reactive Cyanide	0.0087	U	1	0.0087	0.050	mg/Kg	09/18/24 14:45	09/19/24 11:26	9012B
Reactive Sulfide	1.58	J	1	0.19	10.0	mg/Kg	09/23/24 08:50	09/23/24 11:25	9034

Comments: pH result reported at temperature 25.3 °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:	ENTACT	Date Collected:	09/17/24 14:20
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-7.5-10B	SDG No.:	P4103
Lab Sample ID:	P4103-15	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ASTM Ammonia	0.076	J	1	0.045	0.10	mg/L	09/23/24 14:35	09/24/24 10:50	SM 4500-NH3 B plus NH3 G-11
ASTM COD	118		1	2.35	10.0	mg/L		09/24/24 14:05	SM 5220 D-11
ASTM Oil and Grease	0.70	J	1	0.40	5.00	mg/L		09/24/24 11:45	SW1664A
ASTM TS	271		1	1.00	5.00	mg/L		09/23/24 11:00	SM 2540 B-15

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 14:20
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-14-7.5-10B	SDG No.:	P4103
Lab Sample ID:	P4103-15	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TS	88.8		1	1.00	5.00	%		09/19/24 11:00	SM 2540 B-15
TVS	2.90	J	1	1.00	10.0	%		09/19/24 16:00	160.4

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 14:45
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-23	SDG No.:	P4103
Lab Sample ID:	P4103-16	Matrix:	SOIL
		% Solid:	86

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.094	J	1	0.049	0.28	mg/Kg	09/24/24 09:00	09/24/24 17:47	9012B
Hexavalent Chromium	0.091	U	1	0.091	0.46	mg/Kg	09/20/24 13:30	09/20/24 17:19	7196A
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		09/23/24 09:58	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 14:45
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-23	SDG No.:	P4103
Lab Sample ID:	P4103-17	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.31	H	1	0	0	pH		09/19/24 17:00	9045D
Ignitability	NO		1	0	0	oC		09/24/24 10:22	1030
Reactive Cyanide	0.0088	U	1	0.0088	0.050	mg/Kg	09/18/24 14:45	09/19/24 11:32	9012B
Reactive Sulfide	3.19	J	1	0.19	10.0	mg/Kg	09/23/24 08:50	09/23/24 11:28	9034

Comments: pH result reported at temperature 25.2 °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:	ENTACT	Date Collected:	09/17/24 14:45
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-23	SDG No.:	P4103
Lab Sample ID:	P4103-18	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ASTM Ammonia	0.045	U	1	0.045	0.10	mg/L	09/23/24 14:35	09/24/24 10:50	SM 4500-NH3 B plus NH3 G-11
ASTM COD	132		1	2.35	10.0	mg/L		09/24/24 14:07	SM 5220 D-11
ASTM Oil and Grease	0.80	J	1	0.40	5.00	mg/L		09/24/24 11:45	SW1664A
ASTM TS	304		1	1.00	5.00	mg/L		09/23/24 11:00	SM 2540 B-15

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	ENTACT	Date Collected:	09/17/24 14:45
Project:	North Point	Date Received:	09/18/24
Client Sample ID:	WC-23	SDG No.:	P4103
Lab Sample ID:	P4103-18	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TS	86.6		1	1.00	5.00	%		09/19/24 11:00	SM 2540 B-15
TVS	2.40	J	1	1.00	10.0	%		09/19/24 16:00	160.4

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

QC RESULT SUMMARY

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Initial and Continuing Calibration Verification

Client: ENTACT **SDG No.:** P4103

Project: North Point **RunNo.:** LB132516

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Reactive Cyanide	mg/L	0.095	0.099	96	85-115	09/19/2024
Sample ID: CCV1						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	09/19/2024
Sample ID: CCV2						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	09/19/2024
Sample ID: CCV3						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	09/19/2024
Sample ID: CCV4						
Reactive Cyanide	mg/L	0.25	0.25	100	90-110	09/19/2024

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Initial and Continuing Calibration Verification

Client: ENTACT **SDG No.:** P4103

Project: North Point **RunNo.:** LB132518

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**ICV**						
Corrosivity		pH	7.02	7	100	90-110	09/19/2024
Sample ID:	**CCV1**						
Corrosivity		pH	2.01	2.00	101	90-110	09/19/2024
Sample ID:	**CCV2**						
Corrosivity		pH	12.02	12.00	100	90-110	09/19/2024
Sample ID:	**CCV3**						
Corrosivity		pH	2.01	2.00	101	90-110	09/19/2024

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Initial and Continuing Calibration Verification

Client: ENTACT **SDG No.:** P4103

Project: North Point **RunNo.:** LB132537

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Hexavalent Chromium	mg/L	0.500	0.5	100	90-110	09/20/2024
Sample ID: CCV1						
Hexavalent Chromium	mg/L	0.501	0.5	100	90-110	09/20/2024
Sample ID: CCV2						
Hexavalent Chromium	mg/L	0.499	0.5	100	90-110	09/20/2024
Sample ID: CCV3						
Hexavalent Chromium	mg/L	0.503	0.5	101	90-110	09/20/2024

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Initial and Continuing Calibration Verification

Client: ENTACT **SDG No.:** P4103

Project: North Point **RunNo.:** LB132565

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV1						
ASTM Ammonia		mg/L	1	1	100	90-110	09/24/2024
Sample ID:	CCV1						
ASTM Ammonia		mg/L	0.99	1	99	90-110	09/24/2024
Sample ID:	CCV2						
ASTM Ammonia		mg/L	1.1	1	110	90-110	09/24/2024
Sample ID:	CCV3						
ASTM Ammonia		mg/L	1	1	100	90-110	09/24/2024

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Initial and Continuing Calibration Verification

Client:	ENTACT	**SDG No.:**	P4103
Project:	North Point	**RunNo.:**	LB132579

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**ICV**						
ASTM COD		mg/L	49.231	50	98	95-105	07/09/2024
Sample ID:	**CCV1**						
ASTM COD		mg/L	48.249	50	96	95-105	09/24/2024
Sample ID:	**CCV2**						
ASTM COD		mg/L	49.231	50	98	95-105	09/24/2024
Sample ID:	**CCV3**						
ASTM COD		mg/L	49.231	50	98	95-105	09/24/2024

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Initial and Continuing Calibration Verification

Client: ENTACT **SDG No.:** P4103

Project: North Point **RunNo.:** LB132584

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**ICV1**						
Cyanide		mg/L	0.098	0.099	99	90-110	09/24/2024
Sample ID:	**CCV1**						
Cyanide		mg/L	0.25	0.25	100	90-110	09/24/2024
Sample ID:	**CCV2**						
Cyanide		mg/L	0.25	0.25	100	90-110	09/24/2024
Sample ID:	**CCV3**						
Cyanide		mg/L	0.26	0.25	104	90-110	09/24/2024

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Initial and Continuing Calibration Blank Summary

Client: ENTACT **SDG No.:** P4103

Project: North Point **RunNo.:** LB132516

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	09/19/2024
Sample ID: CCB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	09/19/2024
Sample ID: CCB2							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	09/19/2024
Sample ID: CCB3							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	09/19/2024
Sample ID: CCB4							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	09/19/2024

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Initial and Continuing Calibration Blank Summary

Client: ENTACT **SDG No.:** P4103

Project: North Point **RunNo.:** LB132537

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	09/20/2024
Sample ID: CCB1							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	09/20/2024
Sample ID: CCB2							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	09/20/2024
Sample ID: CCB3							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	09/20/2024

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Initial and Continuing Calibration Blank Summary

Client: ENTACT **SDG No.:** P4103

Project: North Point **RunNo.:** LB132565

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
ASTM Ammonia	mg/L	< 0.0500	0.0500	U	0.045	0.1	09/24/2024
Sample ID: CCB1							
ASTM Ammonia	mg/L	< 0.0500	0.0500	U	0.045	0.1	09/24/2024
Sample ID: CCB2							
ASTM Ammonia	mg/L	< 0.0500	0.0500	U	0.045	0.1	09/24/2024
Sample ID: CCB3							
ASTM Ammonia	mg/L	< 0.0500	0.0500	U	0.045	0.1	09/24/2024

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Initial and Continuing Calibration Blank Summary

Client:	ENTACT	**SDG No.:**	P4103
Project:	North Point	**RunNo.:**	LB132579

Analyte		Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	ICB							
ASTM COD		mg/L	< 5.0000	5.0000	U	2.35	10	07/09/2024
Sample ID:	CCB1							
ASTM COD		mg/L	< 5.0000	5.0000	U	2.35	10	09/24/2024
Sample ID:	CCB2							
ASTM COD		mg/L	< 5.0000	5.0000	U	2.35	10	09/24/2024
Sample ID:	CCB3							
ASTM COD		mg/L	< 5.0000	5.0000	U	2.35	10	09/24/2024

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Initial and Continuing Calibration Blank Summary

Client: ENTACT **SDG No.:** P4103

Project: North Point **RunNo.:** LB132584

Analyte		Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	ICB1							
Cyanide		mg/L	< 0.0025	0.0025	U	0.00099	0.005	09/24/2024
Sample ID:	CCB1							
Cyanide		mg/L	< 0.0025	0.0025	U	0.00099	0.005	09/24/2024
Sample ID:	CCB2							
Cyanide		mg/L	< 0.0025	0.0025	U	0.00099	0.005	09/24/2024
Sample ID:	CCB3							
Cyanide		mg/L	< 0.0025	0.0025	U	0.00099	0.005	09/24/2024

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Preparation Blank Summary

Client: ENTACT **SDG No.:** P4103

Project: North Point

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: **LB132520BL**							
TS	%	< 2.5000	2.5000	U	1	5	09/19/2024
Sample ID: **LB132521BL**							
TVS	%	< 5.0000	5.0000	U	1	10	09/19/2024
Sample ID: **LB132556BL**							
ASTM TS	mg/L	< 2.5000	2.5000	U	1	5	09/23/2024
Sample ID: **LB132564BL**							
ASTM Oil and Grease	mg/L	< 2.5000	2.5000	U	0.4	5.0	09/24/2024
Sample ID: **LB132579BL**							
ASTM COD	mg/L	< 5.0000	5.0000	U	2.35	10.0	09/24/2024
Sample ID: **PB163518BL**							
Reactive Cyanide	mg/Kg	< 0.0250	0.0250	U	0.0088	0.05	09/19/2024
Sample ID: **PB163530BL**							
Hexavalent Chromium	mg/Kg	< 0.2000	0.2000	U	0.079	0.4	09/20/2024
Sample ID: **PB163550BL**							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.186	10	09/23/2024
Sample ID: **PB163619BL**							
Cyanide	mg/Kg	< 0.1250	0.1250	U	0.044	0.25	09/24/2024
Sample ID: **PB163633BL**							
ASTM Ammonia	mg/L	< 0.0500	0.0500	U	0.045	0.1	09/24/2024

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Matrix Spike Summary

Client: ENTACT
Project: North Point
Client ID: WC-22AMS

SDG No.: P4103
Sample ID: P4103-01
Percent Solids for Spike Sample: 92.7

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	2.10		0.047	U	2.1	1	100		09/24/2024

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Matrix Spike Summary

Client: ENTACT
Project: North Point
Client ID: WC-22AMSD

SDG No.: P4103
Sample ID: P4103-01
Percent Solids for Spike Sample: 92.7

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	1.90		0.047	U	2.1	1	90		09/24/2024

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Matrix Spike Summary

Client: ENTACT
Project: North Point
Client ID: WC-22AMS

SDG No.: P4103
Sample ID: P4103-03
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
ASTM COD	mg/L	75-125	101		54.1		50.0	1	94		09/24/2024
ASTM Oil and Grease	mg/L	78-114	20.2		0.40	J	20.0	1	99		09/24/2024
ASTM Ammonia	mg/L	75-125	1.10		0.045	U	1	1	110		09/24/2024

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Matrix Spike Summary

Client: ENTACT
Project: North Point
Client ID: WC-22AMSD

SDG No.: P4103
Sample ID: P4103-03
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
ASTM Ammonia	mg/L	75-125	1.10		0.045	U	1	1	110		09/24/2024
ASTM COD	mg/L	75-125	102		54.1		50.0	1	96		09/24/2024
ASTM Oil and Grease	mg/L	78-114	20.1		0.40	J	20.0	1	98		09/24/2024

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Matrix Spike Summary

Client: ENTACT
Project: North Point
Client ID: WC-23MS

SDG No.: P4103
Sample ID: P4103-16
Percent Solids for Spike Sample: 86

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	1450		0.091	U	1490	40	97		09/20/2024

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Matrix Spike Summary

Client: ENTACT
Project: North Point
Client ID: WC-23MS

SDG No.: P4103
Sample ID: P4103-16
Percent Solids for Spike Sample: 86

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	85-115	44.5		0.091	U	46.5	2	96		09/20/2024

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Matrix Spike Summary

Client: ENTACT
Project: North Point
Client ID: WC-23MS

SDG No.: P4103
Sample ID: P4103-16
Percent Solids for Spike Sample: 86

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	36.2		0.091	U	46.5	2	78		09/20/2024

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Duplicate Sample Summary

Client: ENTACT
Project: North Point
Client ID: COMP-1DUP

SDG No.: P4103
Sample ID: P4085-02
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	0.0088	U	0.0087	U	1	0		09/19/2024

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Duplicate Sample Summary

Client: ENTACT
Project: North Point
Client ID: WC-22ADUP

SDG No.: P4103
Sample ID: P4103-01
Percent Solids for Spike Sample: 92.7

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.047	U	0.046	U	1	0		09/24/2024

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Duplicate Sample Summary

Client: ENTACT
Project: North Point
Client ID: WC-22AMSD

SDG No.: P4103
Sample ID: P4103-01
Percent Solids for Spike Sample: 92.7

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	2.10		1.90		1	10		09/24/2024

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Duplicate Sample Summary

Client: ENTACT
Project: North Point
Client ID: WC-22ADUP

SDG No.: P4103
Sample ID: P4103-02
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	7.22		7.23		1	0.14		09/19/2024
Ignitability	oC	+/-20	NO		NO		1	0		09/24/2024
Reactive Sulfide	mg/Kg	+/-20	1.59	J	1.59	J	1	0		09/23/2024

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Duplicate Sample Summary

Client: ENTACT
Project: North Point
Client ID: WC-22ADUP

SDG No.: P4103
Sample ID: P4103-03
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
TS	%	+/-5	93.5		94.1		1	0.64		09/19/2024
TVS	%	+/-5	2.20	J	2.20	J	1	0		09/19/2024

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Duplicate Sample Summary

Client: ENTACT
Project: North Point
Client ID: WC-22ADUP

SDG No.: P4103
Sample ID: P4103-03
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
ASTM TS	mg/L	+/-5	213		216		1	1.4		09/23/2024
ASTM Oil and Grease	mg/L	+/-18	0.40	J	0.40	J	1	0		09/24/2024
ASTM Ammonia	mg/L	+/-20	0.045	U	0.045	U	1	0		09/24/2024
ASTM COD	mg/L	+/-20	54.1		54.1		1	0		09/24/2024

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Duplicate Sample Summary

Client: ENTACT
Project: North Point
Client ID: WC-22AMSD

SDG No.: P4103
Sample ID: P4103-03
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
ASTM Oil and Grease	mg/L	+/-18	20.2		20.1		1	0.5		09/24/2024
ASTM Ammonia	mg/L	+/-20	1.10		1.10		1	0		09/24/2024
ASTM COD	mg/L	+/-20	101		102		1	0.99		09/24/2024

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Duplicate Sample Summary

Client: ENTACT
Project: North Point
Client ID: WC-23DUP

SDG No.: P4103
Sample ID: P4103-16
Percent Solids for Spike Sample: 86

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.091	U	0.091	U	1	0		09/20/2024

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Duplicate Sample Summary

Client: ENTACT
Project: North Point
Client ID: OR-02-09202024DUP
SDG No.: P4103
Sample ID: P4142-01
Percent Solids for Spike Sample: 94.5

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Paint Filter	ml/100gm	+/-20	1.00	U	1.00	U	1	0		09/23/2024

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Laboratory Control Sample Summary

Client:	ENTACT	**SDG No.:**	P4103
Project:	North Point	**Run No.:**	LB132564

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB132564BS								
ASTM Oil and Grease	**mg/L**	**20.0**	**16.6**		**83**	**1**	**78-114**	**09/24/2024**

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Laboratory Control Sample Summary

Client:	ENTACT	**SDG No.:**	P4103
Project:	North Point	**Run No.:**	LB132579

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID **LB132579BS**								
ASTM COD	**mg/L**	**50**	**50.2**		**100**	**1**	**90-110**	**09/24/2024**

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Laboratory Control Sample Summary

Client:	ENTACT	**SDG No.:**	P4103
Project:	North Point	**Run No.:**	LB132537

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID PB163530BS								
Hexavalent Chromium	**mg/Kg**	**20**	**20.0**		**100**	**1**	**84-110**	**09/20/2024**

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Laboratory Control Sample Summary

Client: ENTACT **SDG No.:** P4103

Project: North Point **Run No.:** LB132584

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID **PB163619BS**								
Cyanide	mg/Kg	4.9	5.00		102	1	85-115	09/24/2024

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Laboratory Control Sample Summary

Client: ENTACT **SDG No.:** P4103

Project: North Point **Run No.:** LB132565

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID PB163633BS								
ASTM Ammonia	mg/L	1	1.00		100	1	90-110	09/24/2024

RAW DATA

LB132

Calibration results Aquakem 7.2AQ1 Page: 1

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

Reviewed by : NF Instrument ID : Konelab

9/19/2024 10:27

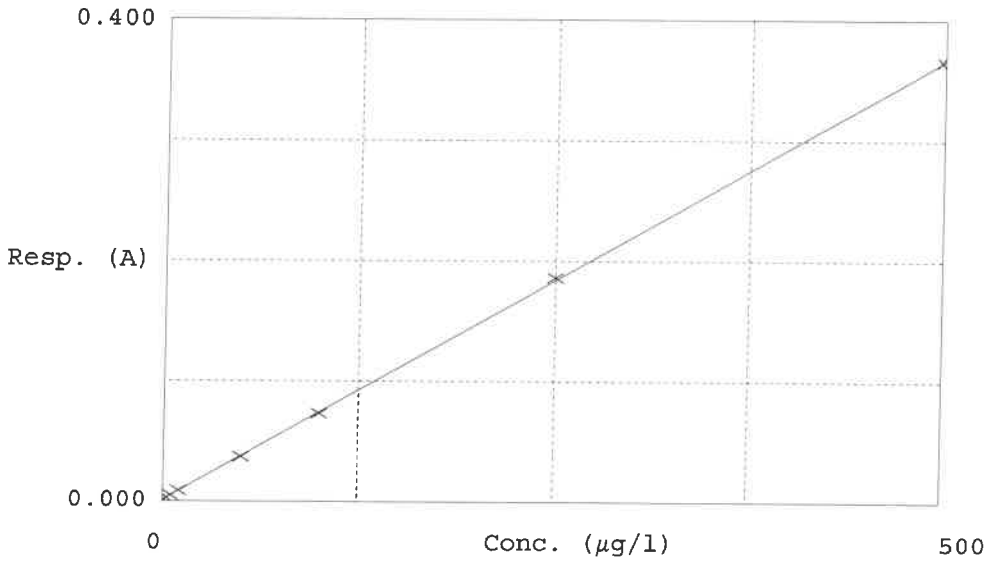
Test Total CN

Accepted 9/19/2024 10:27

Factor 1369
Bias 0.001

Coeff. of det. 0.999933

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.0PPBCN	0.001	0.1723	0.0000	
2	5.0PPBCN	0.005	5.0742	5.0000	1.5
3	10PPBCN	0.009	10.5115	10.0000	5.1
4	50PPBCN	0.037	49.1634	50.0000	-1.7
5	100PPBCN	0.073	98.1899	100.0000	-1.8
6	250PPBCN	0.186	252.9081	250.0000	1.2
7	500PPBCN	0.366	498.9807	500.0000	-0.2

Re

NF

09.19.2024

Aquakem v. 7.2AQ1
Results from time period:
Thu Sep 19 10:20:02 2024
Thu Sep 19 12:31:27 2024

Sample Id	Sam/Ctr/c/	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	0.1723	µg/l	9/19/2024 10:20:02	
5.0PPBCN	A	Total CN	P	5.0742	µg/l	9/19/2024 10:20:03	
10PPBCN	A	Total CN	P	10.5115	µg/l	9/19/2024 10:20:04	
50PPBCN	A	Total CN	P	49.1634	µg/l	9/19/2024 10:20:05	
100PPBCN	A	Total CN	P	98.1899	µg/l	9/19/2024 10:20:06	
250PPBCN	A	Total CN	P	252.9081	µg/l	9/19/2024 10:20:07	
500PPBCN	A	Total CN	P	498.9807	µg/l	9/19/2024 10:20:08	
ICV1	S	Total CN	P	94.574	µg/l	9/19/2024 11:10:59	
ICB1	S	Total CN	P	0.6361	µg/l	9/19/2024 11:11:00	
CCV1	S	Total CN	P	244.4022	µg/l	9/19/2024 11:11:02	
CCB1	S	Total CN	P	0.5877	µg/l	9/19/2024 11:11:05	
PB163518BL	S	Total CN	P	0.6969	µg/l	9/19/2024 11:11:07	
P4085-02	S	Total CN	P	0.7326	µg/l	9/19/2024 11:11:08	
P4085-02DUP	S	Total CN	P	0.4427	µg/l	9/19/2024 11:18:30	
P4085-04	S	Total CN	P	0.4367	µg/l	9/19/2024 11:18:31	
P4087-02	S	Total CN	P	0.5597	µg/l	9/19/2024 11:18:32	
P4087-08	S	Total CN	P	0.5471	µg/l	9/19/2024 11:18:33	
P4087-14	S	Total CN	P	0.5221	µg/l	9/19/2024 11:18:34	
P4087-20	S	Total CN	P	0.6034	µg/l	9/19/2024 11:18:35	
P4087-26	S	Total CN	P	0.507	µg/l	9/19/2024 11:18:36	
P4087-32	S	Total CN	P	0.672	µg/l	9/19/2024 11:18:37	
CCV2	S	Total CN	P	243.7138	µg/l	9/19/2024 11:18:38	
CCB2	S	Total CN	P	0.7468	µg/l	9/19/2024 11:18:39	
P4088-02	S	Total CN	P	0.7257	µg/l	9/19/2024 11:18:40	
P4088-08	S	Total CN	P	0.2483	µg/l	9/19/2024 11:26:05	
P4088-14	S	Total CN	P	0.2075	µg/l	9/19/2024 11:26:06	
P4089-02	S	Total CN	P	0.3725	µg/l	9/19/2024 11:26:07	
P4097-02	S	Total CN	P	0.4946	µg/l	9/19/2024 11:26:08	
P4103-02	S	Total CN	P	0.4013	µg/l	9/19/2024 11:26:09	
P4103-05	S	Total CN	P	0.4693	µg/l	9/19/2024 11:26:10	
P4103-08	S	Total CN	P	0.4057	µg/l	9/19/2024 11:26:11	
P4103-11	S	Total CN	P	0.8476	µg/l	9/19/2024 11:26:12	
P4103-14	S	Total CN	P	0.576	µg/l	9/19/2024 11:26:13	
CCV3	S	Total CN	P	242.1571	µg/l	9/19/2024 11:26:14	
CCB3	S	Total CN	P	0.6134	µg/l	9/19/2024 11:26:15	
P4103-17	S	Total CN	P	0.3956	µg/l	9/19/2024 11:32:16	
PB163520BL	S	Total CN	P	0.6369	µg/l	9/19/2024 12:18:11	
P4085-05	S	Total CN	P	0.7173	µg/l	9/19/2024 12:18:12	
P4085-05DUP	S	Total CN	P	0.824	µg/l	9/19/2024 12:18:13	
CCV4	S	Total CN	P	252.8492	µg/l	9/19/2024 12:31:23	
CCB4	S	Total CN	P	0.608	µg/l	9/19/2024 12:31:24	

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284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : NF Instrument ID : Konelab

9/19/2024 12:36

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	94.574	0.0	0.070	
ICB1	0.636	0.0	0.002	
CCV1	244.402	0.0	0.180	
CCB1	0.588	0.0	0.002	
PB163518BL	0.697	0.0	0.002	
P4085-02	0.733	0.0	0.002	
P4085-02DUP	0.443	0.0	0.002	
P4085-04	0.437	0.0	0.002	
P4087-02	0.560	0.0	0.002	
P4087-08	0.547	0.0	0.002	
P4087-14	0.522	0.0	0.002	
P4087-20	0.603	0.0	0.002	
P4087-26	0.507	0.0	0.002	
P4087-32	0.672	0.0	0.002	
CCV2	243.714	0.0	0.179	
CCB2	0.747	0.0	0.002	
P4088-02	0.726	0.0	0.002	
P4088-08	0.248	0.0	0.002	
P4088-14	0.208	0.0	0.001	
P4089-02	0.372	0.0	0.002	
P4097-02	0.495	0.0	0.002	
P4103-02	0.401	0.0	0.002	
P4103-05	0.469	0.0	0.002	
P4103-08	0.406	0.0	0.002	
P4103-11	0.848	0.0	0.002	
P4103-14	0.576	0.0	0.002	
CCV3	242.157	0.0	0.178	
CCB3	0.613	0.0	0.002	
P4103-17	0.396	0.0	0.002	
PB163520BL	0.637	0.0	0.002	
P4085-05	0.717	0.0	0.002	
P4085-05DUP	0.824	0.0	0.002	
CCV4	252.849	0.0	0.186	
CCB4	0.608	0.0	0.002	

N	34
Mean	32.174
SD	80.8026
CV%	251.14

Analytical Summary Report

Analysis Method: 9045D
Analyst By : jignesh
Parameter: Corrosivity
Supervisor Review By : Iwona
Run Number: LB132518
Slope : 98.5
BalanceID: WC SC-4
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].

True Value of CCV3 = 2.00 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	09/19/2024	16:20
2	CAL2	1	Water	NA	NA	20.3	7.00	09/19/2024	16:21
3	CAL3	1	Water	NA	NA	20.3	10.02	09/19/2024	16:22
4	ICV	1	Water	NA	NA	20.3	7.02	09/19/2024	16:25
5	CCV1	1	Water	NA	NA	20.2	2.01	09/19/2024	16:30
6	P4103-02	1	Solid	20.02	20	25.4	7.22	09/19/2024	16:33
7	P4103-02DUP	1	Solid	20.03	20	25.5	7.23	09/19/2024	16:34
8	P4103-05	1	Solid	20.04	20	25.1	10.09	09/19/2024	16:40
9	P4103-08	1	Solid	20.02	20	25.1	9.33	09/19/2024	16:47
10	P4103-11	1	Solid	20.03	20	25.4	7.39	09/19/2024	16:50
11	P4103-14	1	Solid	20.01	20	25.3	7.93	09/19/2024	16:55
12	P4103-17	1	Solid	20.03	20	25.2	8.31	09/19/2024	17:00
13	P4119-01	1	Solid	20.01	20	23.3	5.06	09/19/2024	17:02
14	P4119-03	1	Solid	20.03	20	24.3	6.13	09/19/2024	17:05
15	P4120-14	1	Solid	20.04	20	25.6	8.55	09/19/2024	17:11
16	CCV2	1	Water	NA	NA	20.3	12.02	09/19/2024	17:15
17	P4121-01	1	Solid	20.02	20	25.3	6.25	09/19/2024	17:22
18	P4121-02	1	Solid	20.03	20	24.2	7.23	09/19/2024	17:25
19	CCV3	1	Water	NA	NA	20.2	2.01	09/19/2024	17:28

WORKLIST(Hardcopy Internal Chain)

VB 132518

WorkList Name : corrosivity p4103 **WorkList ID :** 183646 **Department :** Wet-Chemistry **Date :** 09-19-2024 11:39:42

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-02	WC-22A	Solid	Corrosivity	Cool 4 deg C	ENTA05	J11	09/17/2024	9045D
P4103-05	WC-14-5-7.5A	Solid	Corrosivity	Cool 4 deg C	ENTA05	J11	09/17/2024	9045D
P4103-08	WC-14-5-7.5B	Solid	Corrosivity	Cool 4 deg C	ENTA05	J11	09/17/2024	9045D
P4103-11	WC-14-7.5-10A	Solid	Corrosivity	Cool 4 deg C	ENTA05	J11	09/17/2024	9045D
P4103-14	WC-14-7.5-10B	Solid	Corrosivity	Cool 4 deg C	ENTA05	J11	09/17/2024	9045D
P4103-17	WC-23	Solid	Corrosivity	Cool 4 deg C	ENTA05	J11	09/17/2024	9045D
P4119-01	TRANSFOMER-OIL	Solid	Corrosivity	Cool 4 deg C	PSEG03	J12	09/19/2024	9045D
P4119-03	OILY-DEBRIS	Solid	Corrosivity	Cool 4 deg C	PSEG03	J12	09/19/2024	9045D
P4120-14	RB24085	Solid	Corrosivity	Cool 4 deg C	PSEG03	J13	09/19/2024	9045D
P4121-01	COMP-1	Solid	Corrosivity	Cool 4 deg C	PSEG03	J13	09/19/2024	9045D
P4121-02	COMP-2	Solid	Corrosivity	Cool 4 deg C	PSEG03	J13	09/19/2024	9045D

Date/Time 09-19-24 16:15

Raw Sample Received by: JD GDC

Raw Sample Relinquished by: [signature]

Date/Time 09-19-24 18:30

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature]

TOTAL SOLIDS - SM2540B

SUPERVISOR: Iwona
ANALYST: Niha
Date: 09/19/2024
Run Number: LB132520
BalanceID: WC SC-6
OvenID: WC OVEN-1
ThermometerID: WET OVEN#1

TEMP1 IN:	103 °C	09/19/2024 11:00	**TEMP1 OUT:**	104 °C	09/19/2024 12:00
TEMP2 IN:	103 °C	09/19/2024 12:30	**TEMP2 OUT:**	104 °C	09/19/2024 13:30
TEMP3 IN:	104 °C	09/19/2024 16:00	**TEMP3 OUT:**	103 °C	09/20/2024 07:30
TEMP4 IN:	104 °C	09/20/2024 08:00	**TEMP4 OUT:**	103 °C	09/20/2024 09:30

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Dish + Sample Weight (g)	Orignal weight 1st Dish+Sample weight after Drying @103-@105°C (g)	Constant weight 2nd Dish+Sample weight after Drying @103-@105°C (g)	Final Constant weight Final Dish+Sample weight after Drying @103-@105°C (g)	Weight (g)	Result %
1	LB132520BL	LB132520BL	60.4732	60.4732	60.4732	60.4732	60.4732	60.4732	0.0000	0
2	P4103-03	WC-22A	58.3229	58.3229	78.3751	77.0657	77.0657	77.0657	18.7428	93.5
3	P4103-03DUP	WC-22ADUP	59.5632	59.5632	79.5802	78.3934	78.3934	78.3934	18.8302	94.1
4	P4103-06	WC-14-5-7.5A	53.5572	53.5572	73.6184	71.6939	71.6939	71.6939	18.1367	90.4
5	P4103-09	WC-14-5-7.5B	78.4602	78.4602	98.9921	97.0058	97.0058	97.0058	18.5456	90.3
6	P4103-12	WC-14-7.5-10A	59.4008	59.4008	77.1210	74.5664	74.5664	74.5664	15.1656	85.6
7	P4103-15	WC-14-7.5-10B	82.3491	82.3491	102.2205	99.9992	99.9992	99.9992	17.6501	88.8
8	P4103-18	WC-23	78.4007	78.4007	98.3124	95.6357	95.6357	95.6357	17.2350	86.6

A = Final Empty Dish Weight (g)
B = Dish + Sample Weight (g)
C = Final Dish+Sample weight after Drying @103-@105°C (g)

Result % = (C - A) * 100 / (B - A)

LB132520

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TS-09192024 **WorkList ID :** 183665 **Department :** Wet-Chemistry **Date :** 09-19-2024 10:19:15

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-03	WC-22A	Solid	TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B
P4103-06	WC-14-5-7.5A	Solid	TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B
P4103-09	WC-14-5-7.5B	Solid	TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B
P4103-12	WC-14-7.5-10A	Solid	TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B
P4103-15	WC-14-7.5-10B	Solid	TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B
P4103-18	WC-23	Solid	TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B

Date/Time 09.19.2024, 15:00
Raw Sample Received by: NF(WC)
Raw Sample Relinquished by: [illegible]

Date/Time 09.19.2024, 16:30
Raw Sample Received by: [illegible]
Raw Sample Relinquished by: NF(WC)

TOTAL VOLATILE SOLIDS 160.4

TEMP1 IN:	104 °C 09/19/2024 16:00	**TEMP1 OUT:**	103 °C 09/20/2024 07:30	**Run Number:**	LB132521
TEMP2 IN:	104 °C 09/20/2024 08:00	**TEMP2 OUT:**	104 °C 09/20/2024 09:30	**SUPERVISOR:**	Iwona
TEMP3 IN:	540 °C 09/20/2024 10:00	**TEMP3 OUT:**	540 °C 09/20/2024 12:10	**ANALYST:**	Niha
TEMP4 IN:	560 °C 09/20/2024 12:30	**TEMP4 OUT:**	560 °C 09/20/2024 14:40	**BalanceID:**	WC SC-6
				OvenID:	WC OVEN-1

Dish #	Lab ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Empty Dish + Sample Weight (g)	1st Dish + SampleWt Drying @103-@105°C (g)	Final Dish + SampleWt Drying @103-@105°C (g)	Dish + Samplewt Drying @550(±50)°C (g)	Final Dish + Samplewt Drying @550(±50)°C (g)	Weight Diff (g)	Result (%)
1	LB132521BL	60.4732	60.4732	60.4732	60.4732	60.4732	60.4732	60.4732	0.0000	0
2	P4103-03	58.3229	58.3229	78.3751	77.0657	77.0657	76.6465	76.6465	0.4192	2.2
3	P4103-03DUP	59.5632	59.5632	79.5802	78.3934	78.3934	77.9750	77.9750	0.4184	2.2
4	P4103-06	53.5572	53.5572	73.6184	71.6939	71.6939	71.0605	71.0605	0.6334	3.5
5	P4103-09	78.4602	78.4602	98.9921	97.0058	97.0058	96.5329	96.5329	0.4729	2.5
6	P4103-12	59.4008	59.4008	77.121	74.5664	74.5664	73.9992	73.9992	0.5672	3.7
7	P4103-15	82.3491	82.3491	102.2205	99.9992	99.9992	99.4942	99.4942	0.5050	2.9
8	P4103-18	78.4007	78.4007	98.3124	95.6357	95.6357	95.2233	95.2233	0.4124	2.4

A = Sample Weight (g)
B = Final Dish + Samplewt Drying @550(±50)°C (g)
C = Final Dish + SampleWt Drying @103-@105°C (g)
D = Weight (g)
E = Final Empty Dish Weight (g)
F = Final Dish + SampleWt Drying @103-@105°C (g)

Weight D = C - B

Result % = $\frac{D}{F - E} * 100$

LB132521

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TVS-09192024 **WorkList ID :** 183666 **Department :** Wet-Chemistry **Date :** 09-19-2024 10:19:18

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-03	WC-22A	Solid	TVS	Cool 4 deg C	ENTA05	J11	09/17/2024	160.4
P4103-06	WC-14-5-7.5A	Solid	TVS	Cool 4 deg C	ENTA05	J11	09/17/2024	160.4
P4103-09	WC-14-5-7.5B	Solid	TVS	Cool 4 deg C	ENTA05	J11	09/17/2024	160.4
P4103-12	WC-14-7.5-10A	Solid	TVS	Cool 4 deg C	ENTA05	J11	09/17/2024	160.4
P4103-15	WC-14-7.5-10B	Solid	TVS	Cool 4 deg C	ENTA05	J11	09/17/2024	160.4
P4103-18	WC-23	Solid	TVS	Cool 4 deg C	ENTA05	J11	09/17/2024	160.4

Date/Time 09.19.2024, 15:00
Raw Sample Received by: NF(WC)
Raw Sample Relinquished by: [signature]

Date/Time 09.19.2024, 16:30
Raw Sample Received by: [signature]
Raw Sample Relinquished by: NF(WC)

Reviewed By:Iwona
On:9/23/2024 9:57:15 AM
Inst Id :SPECTROPHOTOME

Analytical Summary Report

Analysis Method: ~~7196A~~

Parameter: ~~Hexavalent Chromium~~

Run Number: ~~LB132537~~

ANALYST: rubina

SUPERVISOR REVIEW BY: Iwona

pH Meter ID: WC pH Meter-1

Reagent/Standard	Lot/Log #
hexavalent chromium color reagent	WP109756
5N sulfuric acid	WP107791
HNO3 Hex-Chrome, 5M	WP107796
Hexchrome Cleaning Solution	WP108645

Intercept: 0.0015 **Slope:** 0.7648 **Regression:** 0.999992

Seq	Lab ID	True Value (mg/l)	DF	Initial Vol (ml)	Final Vol (ml)	pH HN03	pH H2SO4	Absorb.at 540nm		Absorbance Difference	Result (mg/L)	%D	Anal Date	Anal Time
								Backgrnd	Color					
1	CAL1	0	1	100	100	7.25	1.89	0.000	0.000	0.000	-0.00		09/20/2024	17:15
2	CAL2	0.01	1	100	100	7.37	1.88	0.000	0.008	0.008	0.008	-20	09/20/2024	17:16
3	CAL3	0.025	1	100	100	7.35	1.84	0.000	0.021	0.021	0.025	0	09/20/2024	17:17
4	CAL4	0.05	1	100	100	7.39	1.88	0.000	0.040	0.040	0.050	0	09/20/2024	17:18
5	CAL5	0.1	1	100	100	7.36	1.84	0.000	0.080	0.080	0.102	2	09/20/2024	17:19
6	CAL6	0.5	1	100	100	7.34	1.90	0.001	0.385	0.384	0.500	0	09/20/2024	17:20
7	CAL7	1	1	100	100	7.38	1.85	0.000	0.766	0.766	0.999	-0.1	09/20/2024	17:21

Reviewed By:Iwona
On:9/23/2024 9:57:15 AM
Inst Id :SPECTROPHOTOME

CHEMTECH

Analytical Summary Report

Analysis Method: 7196A
ANALYST: rubina

Parameter: Hexavalent Chromium
SUPERVISOR REVIEW BY: Iwona

Run Number: LB132537
pH Meter ID: WC pH Meter-1

Seq	Lab ID	True Value	DF	Initial Vol (ml/gm)	Final Vol (ml)	pH HN03	pH H2SO4	Absorb.at540nm		Absorbance Difference	Intermediate Result (mg/L)	Anal Date	Anal Time
								Backgrnd	Color				
1	ICV	0.5	1	100	100	7.43	1.92	0.000	0.384	0.384	0.500	09/20/2024	17:22
2	ICB		1	100	100	7.29	1.80	0.000	0.000	0.000	-0.002	09/20/2024	17:23
3	CCV1	0.5	1	100	100	7.42	1.96	0.000	0.385	0.385	0.501	09/20/2024	17:24
4	CCB1		1	100	100	7.24	1.87	0.000	0.001	0.001	-0.001	09/20/2024	17:25
5	RL Check	0.01	1	100	100	7.41	1.91	0.000	0.009	0.009	0.010	09/20/2024	17:26
6	PB163530BL		1	2.50	100	7.29	1.79	0.000	0.001	0.001	-0.001	09/20/2024	17:27
7	PB163530BS	20	1	2.50	100	7.43	1.92	0.000	0.383	0.383	0.499	09/20/2024	17:28
8	P4103-01		1	2.51	100	7.52	2.06	0.006	0.007	0.001	-0.001	09/20/2024	17:29
9	P4103-04		1	2.54	100	7.60	2.10	0.005	0.005	0.000	-0.002	09/20/2024	17:30
10	P4103-07		1	2.52	100	7.66	2.20	0.001	0.002	0.001	-0.001	09/20/2024	17:31
11	P4103-10		1	2.53	100	7.58	2.06	0.024	0.025	0.001	-0.001	09/20/2024	17:32
12	P4103-13		1	2.54	100	7.60	2.10	0.002	0.003	0.001	-0.001	09/20/2024	17:33
13	P4103-16		1	2.51	100	7.59	2.18	0.003	0.003	0.000	-0.002	09/20/2024	17:34
14	P4103-16DU		1	2.51	100	7.60	2.10	0.003	0.003	0.000	-0.002	09/20/2024	17:35
15	P4103-16MS	40	2	2.52	100	7.52	2.18	0.000	0.301	0.301	0.392	09/20/2024	17:36
16	CCV2	0.5	1	100	100	7.64	2.10	0.000	0.383	0.383	0.499	09/20/2024	17:37
17	CCB2		1	100	100	7.26	1.76	0.000	0.001	0.001	-0.001	09/20/2024	17:38
18	P4103-16MS	1284	40	2.51	100	7.60	2.10	0.000	0.602	0.602	0.785	09/20/2024	17:39
19	P4103-16MS	40	2	2.52	100	7.56	2.14	0.000	0.370	0.370	0.482	09/20/2024	17:40
20	P4120-13		1	2.51	100	7.70	2.10	0.005	0.006	0.001	-0.001	09/20/2024	17:41
21	P4125-01		1	2.52	100	7.60	2.22	0.006	0.007	0.001	-0.001	09/20/2024	17:42
22	P4126-01		1	2.55	100	7.64	2.06	0.007	0.007	0.000	-0.002	09/20/2024	17:43
23	CCV3	0.5	1	100	100	7.36	1.90	0.000	0.386	0.386	0.503	09/20/2024	17:44
24	CCB3		1	100	100	7.30	1.78	0.000	0.001	0.001	-0.001	09/20/2024	17:45

Reviewed By:Iwona
On:9/24/2024 4:13:19 PM
Inst Id :FLAME
LB :LB132545

Analytical Summary Report

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

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

Run Number: LB132545

Seq	LabID	ClientID	DF	matrix	Result Status	Burning Rate	Anal Date	Anal Time
1	P4103-02	WC-22A	1	Solid	NO	0.00	09/24/2024	09:25
2	P4103-02DUP	WC-22ADUP	1	Solid	NO	0.00	09/24/2024	09:32
3	P4103-05	WC-14-5-7.5A	1	Solid	NO	0.00	09/24/2024	09:40
4	P4103-08	WC-14-5-7.5B	1	Solid	NO	0.00	09/24/2024	09:48
5	P4103-11	WC-14-7.5-10A	1	Solid	NO	0.00	09/24/2024	09:55
6	P4103-14	WC-14-7.5-10B	1	Solid	NO	0.00	09/24/2024	10:15
7	P4103-17	WC-23	1	Solid	NO	0.00	09/24/2024	10:22
8	P4119-03	OILY-DEBRIS	1	Solid	NO	0.00	09/24/2024	10:30
9	P4120-13	RB24085	1	Solid	NO	0.00	09/24/2024	10:38
10	P4121-01	COMP-1	1	Solid	NO	0.00	09/24/2024	10:45
11	P4121-02	COMP-2	1	Solid	NO	0.00	09/24/2024	10:52
12	P4123-02	613-D	1	Solid	NO	0.00	09/24/2024	11:00
13	P4138-02	LIBERTY-AVE-TP-COMP	1	Solid	NO	0.00	09/24/2024	11:08
14	P4140-01	MOO-23-00305	1	Solid	NO	0.00	09/24/2024	11:15
15	P4144-02	1-3-SBG	1	Solid	NO	0.00	09/24/2024	11:22
16	P4144-04	4-6-SBG	1	Solid	NO	0.00	09/24/2024	11:30
17	P4148-01	STOCK-PILE	1	Solid	NO	0.00	09/24/2024	11:37
18	P4148-02	STOCK-PILE	1	Solid	NO	0.00	09/24/2024	11:45
19	P4153-01	1577	1	Solid	NO	0.00	09/24/2024	11:52

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

WORKLIST(Hardcopy Internal Chain)

LB132545

WorkList Name : ign-9-23 **WorkList ID :** 183720 **Department :** Wet-Chemistry **Date :** 09-23-2024 08:25:48

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-02	WC-22A	Solid	Ignitability	Cool 4 deg C	ENTA05	J11	09/17/2024	1030
P4103-05	WC-14-5-7.5A	Solid	Ignitability	Cool 4 deg C	ENTA05	J11	09/17/2024	1030
P4103-08	WC-14-5-7.5B	Solid	Ignitability	Cool 4 deg C	ENTA05	J11	09/17/2024	1030
P4103-11	WC-14-7.5-10A	Solid	Ignitability	Cool 4 deg C	ENTA05	J11	09/17/2024	1030
P4103-14	WC-14-7.5-10B	Solid	Ignitability	Cool 4 deg C	ENTA05	J11	09/17/2024	1030
P4103-17	WC-23	Solid	Ignitability	Cool 4 deg C	ENTA05	J11	09/17/2024	1030
P4119-03	OILY-DEBRIS	Solid	Ignitability	Cool 4 deg C	PSEG03	J12	09/19/2024	1030
P4120-13	RB24085	Solid	Ignitability	Cool 4 deg C	PSEG03	J13	09/19/2024	1030
P4121-01	COMP-1	Solid	Ignitability	Cool 4 deg C	PSEG03	J13	09/19/2024	1030
P4121-02	COMP-2	Solid	Ignitability	Cool 4 deg C	PSEG03	J13	09/19/2024	1030
P4123-02	613-D	Solid	Ignitability	Cool 4 deg C	PSEG03	J21	09/19/2024	1030
P4138-02	LIBERTY-AVE-TP-COMP	Solid	Ignitability	Cool 4 deg C	TULL02	J31	09/20/2024	1030
P4140-01	MOO-23-00305	Solid	Ignitability	Cool 4 deg C	PSEG03	J31	09/20/2024	1030
P4144-02	1-3-SBG	Solid	Ignitability	Cool 4 deg C	PSEG03	J31	09/20/2024	1030
P4144-04	4-6-SBG	Solid	Ignitability	Cool 4 deg C	PSEG03	J31	09/20/2024	1030
P4148-01	STOCK-PILE	Solid	Ignitability	Cool 4 deg C	PSEG03	J22	09/23/2024	1030
P4148-02	STOCK-PILE	Solid	Ignitability	Cool 4 deg C	PSEG03	J22	09/23/2024	1030
P4153-01	1577	Solid	Ignitability	Cool 4 deg C	PSEG03	J33	09/23/2024	1030

Date/Time 09/24/2024 09:15
Raw Sample Received by: RM CWC
Raw Sample Relinquished by: Mwley

Date/Time 09/24/2024 12:10
Raw Sample Received by: MCWC
Raw Sample Relinquished by: RM CWC

Reviewed By:Iwona
On:9/23/2024 2:24:28 PM
Inst Id :Filter/Gravimetric

Analytical Summary Report

Analysis Method: 9095B
Reviewed By: rubina
Parameter: Paint Filter
Supervisor Review By: Iwona
Run Number: LB132546
BalanceID: WC SC-4

Seq	LabID	ClientID	Dilution	Weight(g)	Inst.Conc (ml/100g)	Anal Date	Anal Time
1	P4103-01	WC-22A	1	100.05	0.00	09/23/2024	09:20
2	P4103-04	WC-14-5-7.5A	1	100.02	0.00	09/23/2024	09:27
3	P4103-07	WC-14-5-7.5B	1	100.06	0.00	09/23/2024	09:35
4	P4103-10	WC-14-7.5-10A	1	100.02	0.00	09/23/2024	09:42
5	P4103-13	WC-14-7.5-10B	1	100.06	0.00	09/23/2024	09:50
6	P4103-16	WC-23	1	100.02	0.00	09/23/2024	09:58
7	P4142-01	OR-02-09202024	1	100.07	0.00	09/23/2024	10:05
8	P4142-01DUP	OR-02-09202024DUP	1	100.07	0.00	09/23/2024	10:12

WORKLIST(Hardcopy Internal Chain)

L6132546

WorkList Name : pf-9-23 **WorkList ID :** 183719 **Department :** Wet-Chemistry **Date :** 09-23-2024 08:25:42

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-01	WC-22A	Solid	Paint Filter	Cool 4 deg C	ENTA05	J11	09/17/2024	9095B
P4103-04	WC-14-5-7.5A	Solid	Paint Filter	Cool 4 deg C	ENTA05	J11	09/17/2024	9095B
P4103-07	WC-14-5-7.5B	Solid	Paint Filter	Cool 4 deg C	ENTA05	J11	09/17/2024	9095B
P4103-10	WC-14-7.5-10A	Solid	Paint Filter	Cool 4 deg C	ENTA05	J11	09/17/2024	9095B
P4103-13	WC-14-7.5-10B	Solid	Paint Filter	Cool 4 deg C	ENTA05	J11	09/17/2024	9095B
P4103-16	WC-23	Solid	Paint Filter	Cool 4 deg C	ENTA05	J11	09/17/2024	9095B
P4142-01	OR-02-09202024	Solid	Paint Filter	Cool 4 deg C	PSEG05	J21	09/20/2024	9095B

Date/Time 09/23/2024 09:10
Raw Sample Received by: RM (WC)
Raw Sample Relinquished by: Muel

Date/Time 09/23/2024 10:30
Raw Sample Received by: Muel
Raw Sample Relinquished by: RM (WC)

CHEMTECH

Analytical Summary Report

Analysis Method: 9034

Parameter: Reactive Sulfide

Run Number: LB132552

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	W2977

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	PB163550BL		1	5.00	50	2.00	0.00	1.92	1.92	0.08	0.00	0.00	09/23/2024	11:10
2	P4103-02		1	5.03	50	2.00	0.00	1.90	1.90	0.10	0.02	1.59	09/23/2024	11:13
3	P4103-02DUP		1	5.03	50	2.00	0.00	1.90	1.90	0.10	0.02	1.59	09/23/2024	11:15
4	P4103-05		1	5.07	50	2.00	0.00	1.86	1.86	0.14	0.06	4.73	09/23/2024	11:18
5	P4103-08		1	5.04	50	2.00	0.00	1.84	1.84	0.16	0.08	6.35	09/23/2024	11:20
6	P4103-11		1	5.03	50	2.00	0.00	1.88	1.88	0.12	0.04	3.18	09/23/2024	11:22
7	P4103-14		1	5.07	50	2.00	0.00	1.90	1.90	0.10	0.02	1.58	09/23/2024	11:25
8	P4103-17		1	5.01	50	2.00	0.00	1.88	1.88	0.12	0.04	3.19	09/23/2024	11:28
9	P4119-01		1	5.07	50	2.00	0.00	1.84	1.84	0.16	0.08	6.31	09/23/2024	11:30
10	P4119-03		1	5.05	50	2.00	0.00	1.86	1.86	0.14	0.06	4.75	09/23/2024	11:33
11	P4120-14		1	5.03	50	2.00	0.00	1.90	1.90	0.10	0.02	1.59	09/23/2024	11:35
12	P4121-01		1	5.05	50	2.00	0.00	1.84	1.84	0.16	0.08	6.34	09/23/2024	11:38

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

CHEMTECH

Analytical Summary Report

Analysis Method: 9034
Parameter: Reactive Sulfide
Run Number: LB132552

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	W2977

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
13	P4121-02		1	5.02	50	2.00	0.00	1.86	1.86	0.14	0.06	4.78	09/23/2024	11:40
14	P4138-02		1	5.04	50	2.00	0.00	1.86	1.86	0.14	0.06	4.76	09/23/2024	11:43
15	P4140-01		1	5.01	50	2.00	0.00	1.88	1.88	0.12	0.04	3.19	09/23/2024	11:45

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

TOTAL SOLIDS - SM2540B

SUPERVISOR: Iwona
ANALYST: jignesh
Date: 09/23/2024
Run Number: LB132556
BalanceID: WC SC-6
OvenID: WC OVEN-1
ThermometerID: WET OVEN#1

TEMP1 IN:	103 °C	09/23/2024 11:00	**TEMP1 OUT:**	103 °C	09/23/2024 12:00
TEMP2 IN:	104 °C	09/23/2024 12:30	**TEMP2 OUT:**	104 °C	09/23/2024 13:30
TEMP3 IN:	104 °C	09/23/2024 16:00	**TEMP3 OUT:**	104 °C	09/24/2024 08:00
TEMP4 IN:	103 °C	09/24/2024 08:30	**TEMP4 OUT:**	103 °C	09/24/2024 10:05

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Vol (ml)	Orignal weight 1st Dish+Sample weight after Drying @103-@105°C (g)	Constant weight 2nd Dish+Sample weight after Drying @103-@105°C (g)	Final Constant weight Final Dish+Sample weight after Drying @103-@105°C (g)	Weight (g)	Result (mg/L)
1	LB132556BL	LB132556BL	65.0963	65.0963	100	65.0963	65.0963	65.0963	0.0000	0
2	P4103-03	WC-22A	91.6321	91.6321	100	91.6534	91.6534	91.6534	0.0213	213
3	P4103-03DUP	WC-22ADUP	57.6339	57.6339	100	57.6555	57.6555	57.6555	0.0216	216
4	P4103-06	WC-14-5-7.5A	63.8532	63.8532	100	63.8737	63.8737	63.8737	0.0205	205
5	P4103-09	WC-14-5-7.5B	90.3190	90.3190	100	90.3446	90.3446	90.3446	0.0256	256
6	P4103-12	WC-14-7.5-10A	90.5303	90.5303	100	90.5869	90.5869	90.5869	0.0566	566
7	P4103-15	WC-14-7.5-10B	85.0783	85.0783	100	85.1054	85.1054	85.1054	0.0271	271
8	P4103-18	WC-23	85.4669	85.4669	100	85.4973	85.4973	85.4973	0.0304	304

A = Sample Volume (ml)
B = Final Empty Dish Weight (g)
C = Final Dish+Sample weight after Drying @103-@105°C (g)

Result mg/L = ((C - B) / A) * 1000 * 1000

WORKLIST(Hardcopy Internal Chain)

VB 132556

WorkList Name : astm ts p4103 **WorkList ID :** 183741 **Department :** Wet-Chemistry **Date :** 09-23-2024 14:25:09

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-03	WC-22A	Solid	ASTM TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B
P4103-06	WC-14-5-7.5A	Solid	ASTM TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B
P4103-09	WC-14-5-7.5B	Solid	ASTM TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B
P4103-12	WC-14-7.5-10A	Solid	ASTM TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B
P4103-15	WC-14-7.5-10B	Solid	ASTM TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B
P4103-18	WC-23	Solid	ASTM TS	Cool 4 deg C	ENTA05	J11	09/17/2024	SM2540 B

Date/Time 09/23/24 14:35
Raw Sample Received by: JB (WC)
Raw Sample Relinquished by: JB (WC)

Date/Time 09/23/24 16:30
Raw Sample Received by: JB WC
Raw Sample Relinquished by: JB WC

Extraction and Analytical Summary Report

Analysis Method: 1664A
Test: ASTM Oil and Grease
Run Number: LB132564
Analysis Date: 09/24/2024
BalanceID: WC SC-6
OvenID: EXT OVEN-3

ANALYST: jignesh
REVIEWED BY: Iwona
Extraction Date: 09/24/2024
Extration IN Time: 10:15
Extration OUT Time: 11:00
Thermometer ID: EXT OVEN#3

Dish #	Lab ID	Client ID	Matrix	pH	Sample Weight (g)	Final Volume (ml)	Empty Dish Weight (g)	Final Empty Dish Weight(g)	Silica Gel Weight(g)	Weight After Drying(g)	Final Weight After Drying(g)	Change Weight (g)	Result in ppm
1	LB132564BL	LB132564BL	WATER	1.3	1000	100	2.5634	2.5634	0	2.5635	2.5635	0.0001	0.1
2	LB132564BS	LB132564BS	WATER	1.3	1000	100	3.0529	3.0529	0	3.0695	3.0695	0.0166	16.6
3	P4103-03	WC-22A	WATER	1.3	1000	100	3.1408	3.1408	0	3.1412	3.1412	0.0004	0.4
4	P4103-03DUP	WC-22ADUP	WATER	1.3	1000	100	2.8057	2.8057	0	2.8061	2.8061	0.0004	0.4
5	P4103-03MS	WC-22A	WATER	1.3	1000	100	2.9188	2.9188	0	2.9390	2.9390	0.0202	20.2
6	P4103-03MSD	WC-22A	WATER	1.3	1000	100	3.1503	3.1503	0	3.1704	3.1704	0.0201	20.1
7	P4103-06	WC-14-5-7.5A	WATER	1.3	1000	100	2.7401	2.7401	0	2.7408	2.7408	0.0007	0.7
8	P4103-09	WC-14-5-7.5B	WATER	1.3	1000	100	2.9786	2.9786	0	2.9792	2.9792	0.0006	0.6
9	P4103-12	WC-14-7.5-10A	WATER	1.6	1000	100	3.1988	3.1988	0	3.1996	3.1996	0.0008	0.8
10	P4103-15	WC-14-7.5-10B	WATER	1.6	1000	100	2.7533	2.7533	0	2.7540	2.7540	0.0007	0.7
11	P4103-18	WC-23	WATER	1.6	1000	100	2.9344	2.9344	0	2.9352	2.9352	0.0008	0.8

CHEMTECH

QC Batch# LB132564 **Test:** ASTM Oil and Grease **Analysis Date:** 09/24/2024

Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3110
pH Paper 0-14	M6069
Sodium Sulfate	EP2540
1:1 HCL	WP108566
Silica Gel	NA
Sand	NA

Standards Used:

Standard Name	Amount Used	Standard Lot #
LCSW	2.5 ML	WP108567
LCSWD	NA	NA
MS/MSD	2.5 ML	WP108568

BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

Before Analysis

0.0020 gram Balance: 0.0018 **(0.0018-0.0022)**
1.0000 gram Balance: 1.0004 **(0.9950-1.0050)**
Bal Check Time: 10:25

In OVEN TEMP1 : 70 °C **Dessicator Time In1 :** 12:26
In Time1: 11:45
Out OVEN TEMP1: 71 °C **Dessicator Time Out1:** 13:00
Out Time1: 12:25

After Analysis

0.0020 gram Balance: 0.0019 **(0.0018-0.0022)**
1.0000 gram Balance: 1.0005 **(0.9950-1.0050)**
Bal Check Time: 14:19

In OVEN TEMP2 : 70 °C **Dessicator Time In2 :** 13:41
In Time2: 13:30
Out OVEN TEMP2: 70 °C **Dessicator Time Out2:** 14:15
Out Time2: 13:40

WORKLIST(Hardcopy Internal Chain)

LB 132564

WorkList Name : ASTM P4103 OIL & GRE **WorkList ID :** 183762 **Department :** Wet-Chemistry **Date :** 09-24-2024 10:01:10

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-03	WC-22A	Solid	ASTM Oil and Grease	Cool 4 deg C	ENTA05	J11	09/17/2024	1664A
P4103-06	WC-14-5-7.5A	Solid	ASTM Oil and Grease	Cool 4 deg C	ENTA05	J11	09/17/2024	1664A
P4103-09	WC-14-5-7.5B	Solid	ASTM Oil and Grease	Cool 4 deg C	ENTA05	J11	09/17/2024	1664A
P4103-12	WC-14-7.5-10A	Solid	ASTM Oil and Grease	Cool 4 deg C	ENTA05	J11	09/17/2024	1664A
P4103-15	WC-14-7.5-10B	Solid	ASTM Oil and Grease	Cool 4 deg C	ENTA05	J11	09/17/2024	1664A
P4103-18	WC-23	Solid	ASTM Oil and Grease	Cool 4 deg C	ENTA05	J11	09/17/2024	1664A

Date/Time 09/24/24 10:10

Raw Sample Received by: (WC)

Raw Sample Relinquished by: (WC)

Date/Time 09/24/24 13:20

Raw Sample Received by: (WC)

Raw Sample Relinquished by:

LB132565

Test results | Aquakem 7.2AQ1 | Page: 1

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

9/24/2024 10:52 | Reviewed by : RM | Instrument ID : Konelab

Test: Ammonia-N

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	1.031	0.0	0.138	
ICB1	0.005	0.0	0.021	
CCV1	0.988	0.0	0.133	
CCB1	0.001	0.0	0.021	
RL CHECK	0.093	0.0	0.031	93% (50-150) 09/24/2024 RM
PB163633BL	-0.005	0.0	0.020	
PB163633BS	1.045	0.0	0.139	
P4103-03	-0.001	0.0	0.021	
P4103-03DUP	0.001	0.0	0.021	
P4103-03MS	1.106	0.0	0.146	
P4103-03MSD	1.058	0.0	0.141	
P4103-06	-0.003	0.0	0.020	
P4103-09	-0.002	0.0	0.021	
P4103-12	0.818	0.0	0.114	
CCV2	1.052	0.0	0.140	
CCB2	0.007	0.0	0.022	
P4103-15	0.076	0.0	0.029	
P4103-18	0.017	0.0	0.023	
CCV3	0.999	0.0	0.134	
CCB3	0.006	0.0	0.021	

N	20
Mean	0.415
SD	0.5039
CV%	121.55

Aquakem v. 7.2AQ1
Results from time period:
Tue Sep 24 09:40:52 2024
Tue Sep 24 10:50:27 2024

Sample Id	Sam/Ctr/cA	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	Ammonia-N	P	-0.0101	mg/l	9/24/2024 9:40:52	
0.1PPM	A	Ammonia-N	P	0.0873	mg/l	9/24/2024 9:40:53	
0.2PPM	A	Ammonia-N	P	0.1988	mg/l	9/24/2024 9:40:54	
0.4PPM	A	Ammonia-N	P	0.4017	mg/l	9/24/2024 9:40:55	
1.0PPM	A	Ammonia-N	P	1.0691	mg/l	9/24/2024 9:40:56	
1.3PPM	A	Ammonia-N	P	1.2952	mg/l	9/24/2024 9:40:57	
2.0PPM	A	Ammonia-N	P	1.9913	mg/l	9/24/2024 9:40:58	
ICV1	S	Ammonia-N	P	1.0309	mg/l	9/24/2024 10:29:28	
ICB1	S	Ammonia-N	P	0.0046	mg/l	9/24/2024 10:29:30	
CCV1	S	Ammonia-N	P	0.9881	mg/l	9/24/2024 10:29:31	
CCB1	S	Ammonia-N	P	0.0014	mg/l	9/24/2024 10:29:34	
RL CHECK	S	Ammonia-N	P	0.0927	mg/l	9/24/2024 10:29:35	
PB163633BL	S	Ammonia-N	P	-0.0055	mg/l	9/24/2024 10:29:38	
PB163633BS	S	Ammonia-N	P	1.0446	mg/l	9/24/2024 10:40:11	
P4103-03	S	Ammonia-N	P	-0.0012	mg/l	9/24/2024 10:40:14	
P4103-03DUP	S	Ammonia-N	P	0.0008	mg/l	9/24/2024 10:40:15	
P4103-03MS	S	Ammonia-N	P	1.1059	mg/l	9/24/2024 10:40:17	
P4103-03MSD	S	Ammonia-N	P	1.0578	mg/l	9/24/2024 10:40:18	
P4103-06	S	Ammonia-N	P	-0.0026	mg/l	9/24/2024 10:40:21	
P4103-09	S	Ammonia-N	P	-0.0016	mg/l	9/24/2024 10:40:22	
P4103-12	S	Ammonia-N	P	0.8184	mg/l	9/24/2024 10:50:17	
CCV2	S	Ammonia-N	P	1.0516	mg/l	9/24/2024 10:50:18	
CCB2	S	Ammonia-N	P	0.0073	mg/l	9/24/2024 10:50:20	
P4103-15	S	Ammonia-N	P	0.0757	mg/l	9/24/2024 10:50:22	
P4103-18	S	Ammonia-N	P	0.0172	mg/l	9/24/2024 10:50:23	
CCV3	S	Ammonia-N	P	0.9989	mg/l	9/24/2024 10:50:24	
CCB3	S	Ammonia-N	P	0.0057	mg/l	9/24/2024 10:50:27	

Calibration results Aquakem 7.2AQ1 Page: 1

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

Reviewed by : RM Instrument ID : Konelab

9/24/2024 9:48

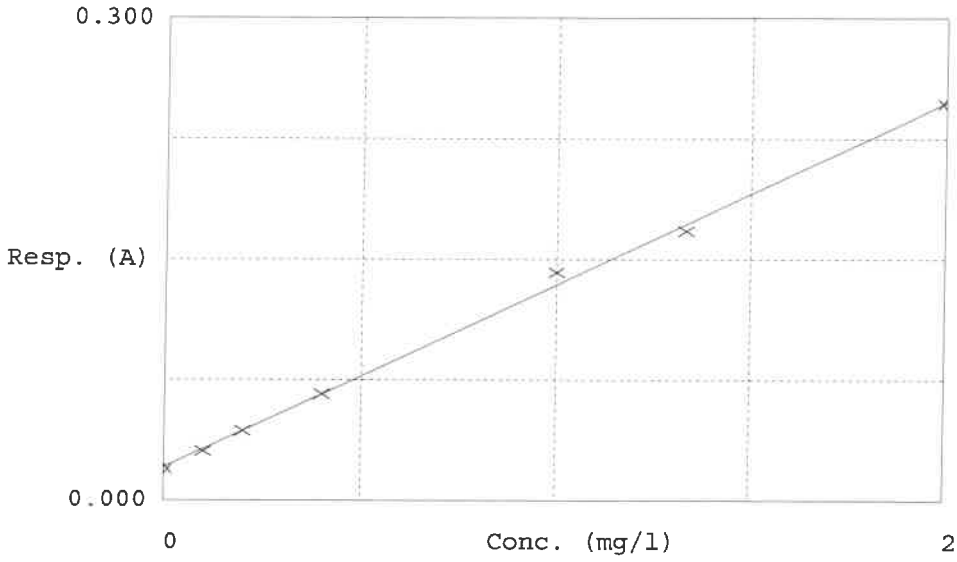
Test Ammonia-N

Accepted 9/24/2024 9:48

Factor 8.817
Bias 0.021

Coeff. of det. 0.998053

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.020	-0.0101	0.0000	-12.7
2	NH3-2PPM	0.031	0.0873	0.1000	-6.6
3	NH3-2PPM	0.043	0.1988	0.2000	0.4
4	NH3-2PPM	0.066	0.4017	0.4000	6.9
5	NH3-2PPM	0.142	1.0691	1.0000	-0.4
6	NH3-2PPM	0.168	1.2952	1.3333	-0.4
7	NH3-2PPM	0.247	1.9913	2.0000	

09/24/2024
RM

Reviewed By:Iwona
On:9/25/2024 10:36:52 AM
Inst Id :SPECTROPHOTOME

Analytical Summary Report

Analysis Method: SM5220 D
Parameter: ASTM COD
Run Number: LB132579

ANALYST: Niha
SUPERVISOR REVIEW BY: Iwona

Reagent/Standard	Lot/Log #
COD Digestion Vials Low Level 0-150Mg/L	W3068
COD ICV-LCS std, 50ppm	WP108671
COD calibration std. 100 ppm	WP108668
COD calibration std. 10 ppm	WP108666
COD calibration std. 150 ppm	WP108669
COD calibration std. 50 ppm	WP108667
COD calibration std. 0 ppm	WP108665
COD ICV-LCS std, 50ppm	WP109777
COD CCV std, 50ppm	WP109776

Temp In(C): 148	**Date In:** 09/24/2024	**Time In:** 09:15
Temp Out(C): 150	**Date Out:** 09/24/2024	**Time Out:** 11:15

Intercept: -0.1322 **Slope:** 1.0183 **Regression:** 1

Seq	Lab ID	TrueValue (mg/l)	DF	MATRIX	Reading	Result (mg/l)	%D	Anal Date	Anal Time
1	CAL1	0	1	Water	0.000	0.13		07/09/2024	14:20
2	CAL2	10	1	Water	10.000	9.95	-0.5	07/09/2024	14:20
3	CAL3	50	1	Water	51.000	50.213	0.4	07/09/2024	14:21
4	CAL4	100	1	Water	101.000	99.315	-0.7	07/09/2024	14:21
5	CAL5	150	1	Water	153.000	150.38	0.3	07/09/2024	14:22

Reviewed By:Iwona
On:9/25/2024 10:36:52 AM
Inst Id :SPECTROPHOTOME

CHEMTECH

Analytical Summary Report

Analysis Method: SM5220 D
ANALYST: Niha
Parameter: ASTM COD
SUPERVISOR REVIEW BY: Iwona
Run Number: LB132579

Seq	Lab ID	True Value (mg/l)	Initial Weight (g)	Final Vol (ml)	DF	MATRIX	Reading	Result	AnalDate	AnalTime
1	ICV	50	NA	NA	1	Water	50.000	49.231	07/09/2024	14:22
2	ICB		NA	NA	1	Water	0.000	0.130	07/09/2024	14:23
3	CCV1	50	NA	NA	1	Water	49.000	48.249	09/24/2024	14:00
4	CCB1		NA	NA	1	Water	0.000	0.130	09/24/2024	14:00
5	LB132579BL		NA	NA	1	Water	0.000	0.130	09/24/2024	14:01
6	LB132579BS	50	NA	NA	1	Water	51.000	50.213	09/24/2024	14:01
7	P4103-03		NA	NA	1	Water	55.000	54.141	09/24/2024	14:02
8	P4103-03DUP		NA	NA	1	Water	55.000	54.141	09/24/2024	14:02
9	P4103-03MS	50	NA	NA	1	Water	103.000	101.279	09/24/2024	14:03
10	P4103-03MSD	50	NA	NA	1	Water	104.000	102.261	09/24/2024	14:03
11	P4103-06		NA	NA	1	Water	55.000	54.141	09/24/2024	14:04
12	P4103-09		NA	NA	1	Water	60.000	59.052	09/24/2024	14:04
13	P4103-12		NA	NA	1	Water	62.000	61.016	09/24/2024	14:05
14	P4103-15		NA	NA	1	Water	120.000	117.973	09/24/2024	14:05
15	CCV2	50	NA	NA	1	Water	50.000	49.231	09/24/2024	14:06
16	CCB2		NA	NA	1	Water	0.000	0.130	09/24/2024	14:06
17	P4103-18		NA	NA	1	Water	134.000	131.722	09/24/2024	14:07
18	CCV3	50	NA	NA	1	Water	50.000	49.231	09/24/2024	14:07
19	CCB3		NA	NA	1	Water	0.000	0.130	09/24/2024	14:08

LB132579

WORKLIST(Hardcopy Internal Chain)

WorkList Name : ASTM COD-09232024 **WorkList ID :** 183738 **Department :** Wet-Chemistry **Date :** 09-23-2024 14:14:34

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-03	WC-22A	Solid	ASTM COD	Cool 4 deg C	ENTA05	J11	09/17/2024	SM5220 D
P4103-06	WC-14-5-7.5A	Solid	ASTM COD	Cool 4 deg C	ENTA05	J11	09/17/2024	SM5220 D
P4103-09	WC-14-5-7.5B	Solid	ASTM COD	Cool 4 deg C	ENTA05	J11	09/17/2024	SM5220 D
P4103-12	WC-14-7.5-10A	Solid	ASTM COD	Cool 4 deg C	ENTA05	J11	09/17/2024	SM5220 D
P4103-15	WC-14-7.5-10B	Solid	ASTM COD	Cool 4 deg C	ENTA05	J11	09/17/2024	SM5220 D
P4103-18	WC-23	Solid	ASTM COD	Cool 4 deg C	ENTA05	J11	09/17/2024	SM5220 D

Date/Time 09.25.2024, 09:00

Raw Sample Received by: NF (WC)

Raw Sample Relinquished by: NF (WC)

Date/Time NA

Raw Sample Received by:

Raw Sample Relinquished by:

LB132584

Test results | Aquakem 7.2AQ1 | Page:

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

Reviewed by : NF | Instrument ID : Konelab

9/25/2024 9:27

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	98.198	0.0	0.078	
ICB1	-0.234	0.0	0.001	
CCV1	248.772	0.0	0.195	
CCB1	0.066	0.0	0.002	
PB163619BL	0.277	0.0	0.002	
PB163619BS	101.253	0.0	0.080	
LOWPB163619	9.899	0.0	0.009	98% (90-110)
HIGHPB163619	500.862	0.0	0.391	100% (90-110)
P4103-01	0.731	0.0	0.002	
P4103-01DUP	-0.007	0.0	0.001	
P4103-01MS	38.910	0.0	0.032	
P4103-01MD	36.284	0.0	0.030	
P4103-04	7.506	0.0	0.007	
P4103-07	2.576	0.0	0.003	
CCV2	248.935	0.0	0.195	
CCB2	0.512	0.0	0.002	
P4103-10	3.070	0.0	0.004	
P4103-13	0.901	0.0	0.002	
P4103-16	1.683	0.0	0.003	
CCV3	261.980	0.0	0.205	
CCB3	0.595	0.0	0.002	

NF 09.25.2024

N	21
Mean	74.417
SD	132.2792
CV%	177.75

Aquakem v. 7.2AQ1
Results from time period:
Tue Sep 24 16:33:13 2024
Tue Sep 24 17:52:34 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	0.1081	µg/l	9/24/2024 13:48:54	
5.0PPBCN	A	Total CN	P	4.8175	µg/l	9/24/2024 13:48:55	
10PPBCN	A	Total CN	P	9.933	µg/l	9/24/2024 13:48:56	
50PPBCN	A	Total CN	P	48.345	µg/l	9/24/2024 13:48:57	
100PPBCN	A	Total CN	P	101.9011	µg/l	9/24/2024 13:48:58	
250PPBCN	A	Total CN	P	250.2137	µg/l	9/24/2024 13:48:59	
500PPBCN	A	Total CN	P	499.6816	µg/l	9/24/2024 13:49:00	
ICV1	S	Total CN	P	98.1981	µg/l	9/24/2024 17:17:26	
ICB1	S	Total CN	P	-0.2343	µg/l	9/24/2024 17:17:29	
CCV1	S	Total CN	P	248.7715	µg/l	9/24/2024 17:17:30	
CCB1	S	Total CN	P	0.0659	µg/l	9/24/2024 17:17:32	
PB163619BL	S	Total CN	P	0.2774	µg/l	9/24/2024 17:17:34	
PB163619BS	S	Total CN	P	101.2527	µg/l	9/24/2024 17:25:01	
LOWPB163619	S	Total CN	P	9.8992	µg/l	9/24/2024 17:25:02	
HIGHPB163619	S	Total CN	P	500.8621	µg/l	9/24/2024 17:25:04	
P4103-01	S	Total CN	P	0.7314	µg/l	9/24/2024 17:25:06	
P4103-01DUP	S	Total CN	P	-0.0073	µg/l	9/24/2024 17:25:08	
P4103-01MS	S	Total CN	P	38.9098	µg/l	9/24/2024 17:25:10	
P4103-01MD	S	Total CN	P	36.2842	µg/l	9/24/2024 17:32:36	
P4103-04	S	Total CN	P	7.506	µg/l	9/24/2024 17:32:38	
P4103-07	S	Total CN	P	2.5756	µg/l	9/24/2024 17:32:40	
CCV2	S	Total CN	P	248.9346	µg/l	9/24/2024 17:40:11	
CCB2	S	Total CN	P	0.5115	µg/l	9/24/2024 17:40:13	
P4103-10	S	Total CN	P	3.0699	µg/l	9/24/2024 17:40:15	
P4103-13	S	Total CN	P	0.9007	µg/l	9/24/2024 17:40:18	
P4103-16	S	Total CN	P	1.6829	µg/l	9/24/2024 17:47:43	
CCV3	S	Total CN	P	261.9804	µg/l	9/24/2024 17:52:31	
CCB3	S	Total CN	P	0.5948	µg/l	9/24/2024 17:52:34	

Calibration results | Aquakem 7.2AQ1 | Page: 1

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

Reviewed by : NF | Instrument ID : Konelab

9/24/2024 13:51

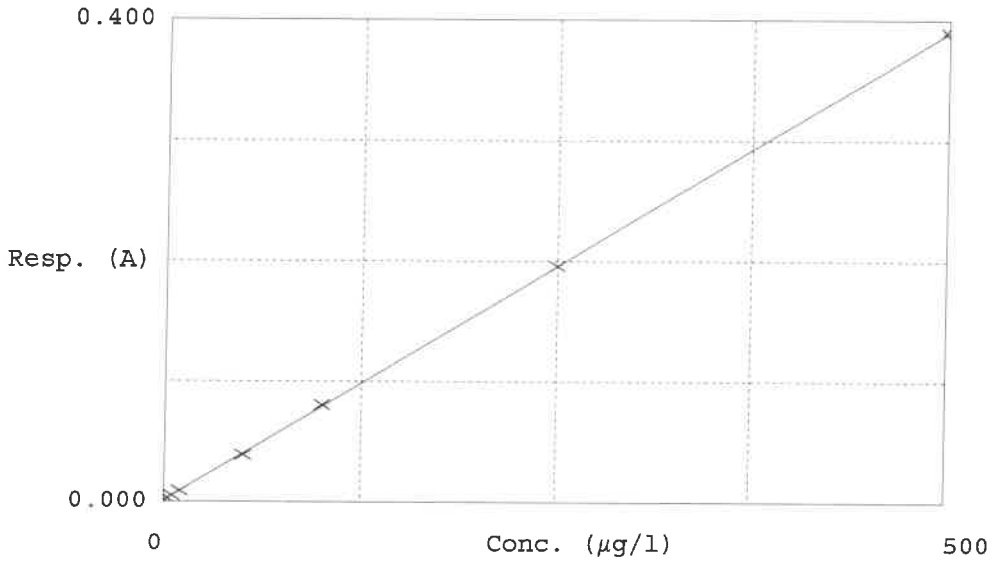
Test Total CN

Accepted 9/24/2024 13:51

Factor 1287
Bias 0.001

Coeff. of det. 0.999968

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.0PPBCN	0.002	0.1081	0.0000	
2	5.0PPBCN	0.005	4.8175	5.0000	-3.7
3	10PPBCN	0.009	9.9330	10.0000	-0.7
4	50PPBCN	0.039	48.3450	50.0000	-3.3
5	100PPBCN	0.081	101.9011	100.0000	1.9
6	250PPBCN	0.196	250.2137	250.0000	0.1
7	500PPBCN	0.390	499.6816	500.0000	-0.1

Rc

NF
09.25.2024

Alliance TECHNICAL GROUP

Soil/Sludge Hexavalent Chromium Preparation Sheet

PB163530

SOP ID : M3060A,7196A-Hex.Chromium-26

SDG No : N/A

Matrix : SOIL

Pippete ID : WC

Balance ID : WC SC-4

Hood ID : HOOD#3

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

Weigh By : RM

Start Digest Date: 09/20/2024 **Time :** 13:30 **Temp :** 90 °C

End Digest Date: 09/20/2024 **Time :** 14:30 **Temp :** 95 °C

11 batch
09/20/2024 14:45 90c RM
09/20/2024 15:45 94c

Digestion tube ID : M6054

Filter paper ID : 400213

pH Meter ID : WC pH meter-1

Block Thermometer ID : WC-Block#1

Prep Technician Signature: RM

Supervisor Signature: 12

Standared Name	MLS USED	STD REF. # FROM LOG
PRE-DIGESTION SPIKE	2.0ML	WP108658
INSOLUBLE SPIKE	0.02GM	W2202
POST-DIGESTION SPIKE	2.0ML	WP108658
LCSS	1.0ML	WP108659
PBS003	50ML	W3112

Chemical Used	ML/SAMPLE USED	Lot Number
MAGNESIUM CHLORIDE	0.4GM	W3001
PHOSPHATE BUFFER	0.5ML	WP108008
HEX. DIGESTION SOLN.	50ML	WP109630
5M HNO3	5-7ML	WP107796
5N H2SO4	1-3ML	WP107791
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Vol(ml)	Comment
CAL1	CAL1	2.5ML	W3112
CAL2	CAL2	0.2ML	WP109832
CAL3	CAL3	0.5ML	WP109832
CAL4	CAL4	1ML	WP109832
CAL5	CAL5	0.2ML	WP108658
CAL6	CAL6	1ML	WP108658
CAL7	CAL7	2.0ML	WP108658
ICV	ICV	1ML	WP108659
ICB	ICB	2.5ML	W3112
CCV	CCV	1ML	WP108658
CCB	CCB	2.5ML	W3112

Extraction Conformance/Non-Conformance Comments:

09/20/2024 RM

N/A

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

Alliance TECHNICAL GROUP

Soil/Sludge Hexavalent Chromium Preparation Sheet

PB163530

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P4103-01	WC-22A	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
P4103-04	WC-14-5-7.5A	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
P4103-07	WC-14-5-7.5B	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
P4103-10	WC-14-7.5-10A	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A
P4103-13	WC-14-7.5-10B	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
P4103-16	WC-23	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
P4103-16DUP	WC-23DUP	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
P4103-16MSPre	WC-23MSPRE	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
P4103-16MS2Ins	WC-23MS2INS	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
P4103-16MS3Post	WC-23MS3POST	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
P4120-13	RB24085	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
P4125-01	PL-01-09192024	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
P4126-01	NB-08-09192024	2.55	100	N/A	N/A	N/A	N/A	N/A	N/A
PB163530BL	PBS530	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
PB163530BS	LCS530	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : hex-9-20 **WorkList ID :** 183678 **Department :** Distillation **Date :** 09-20-2024 08:20:25

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-01	WC-22A	Solid	Hexavalent Chromium	Cool 4 deg C	ENTA05	J11	09/17/2024	7196A
P4103-04	WC-14-5-7.5A	Solid	Hexavalent Chromium	Cool 4 deg C	ENTA05	J11	09/17/2024	7196A
P4103-07	WC-14-5-7.5B	Solid	Hexavalent Chromium	Cool 4 deg C	ENTA05	J11	09/17/2024	7196A
P4103-10	WC-14-7.5-10A	Solid	Hexavalent Chromium	Cool 4 deg C	ENTA05	J11	09/17/2024	7196A
P4103-13	WC-14-7.5-10B	Solid	Hexavalent Chromium	Cool 4 deg C	ENTA05	J11	09/17/2024	7196A
P4103-16	WC-23	Solid	Hexavalent Chromium	Cool 4 deg C	ENTA05	J11	09/17/2024	7196A
P4120-13	RB24085	Solid	Hexavalent Chromium	Cool 4 deg C	ENTA05	J11	09/17/2024	7196A
P4125-01	PL-01-09192024	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	J13	09/19/2024	7196A
P4126-01	NB-08-09192024	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	J21	09/19/2024	7196A
P4126-01	NB-08-09192024	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	J21	09/19/2024	7196A

Date/Time 09/20/2024 12.45

Raw Sample Received by: RM (WC)

Raw Sample Relinquished by: [signature]

Date/Time 09/2024 15.00

Raw Sample Received by: [signature]

Raw Sample Relinquished by: RM (WC)

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Sulfide Preparation Sheet

PB163550

SOP ID : M9030B-Sulfide-12

SDG No : N/A

Start Digest Date: 09/23/2024 **Time :** 08:50 **Temp :** N/A

Matrix : SOIL

End Digest Date: 09/23/2024 **Time :** 10:20 **Temp :** N/A

Pippete ID : WC

Balance ID : WC SC-4

Hood ID : HOOD#1 **Digestion tube ID :** M5595 **Block Thermometer ID :** N/A

Block ID : MC-1,MC-2 **Filter paper ID :** N/A **Prep Technician Signature:** RM

Weigh By : RM **pH Meter ID :** N/A **Supervisor Signature:** 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:

09/23/2024 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

PB163550

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P4103-02	WC-22A	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-02DUP	WC-22ADUP	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-05	WC-14-5-7.5A	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-08	WC-14-5-7.5B	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-11	WC-14-7.5-10A	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-14	WC-14-7.5-10B	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-17	WC-23	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
P4119-01	TRANSFOMER-OIL	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
P4119-03	OILY-DEBRIS	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
P4120-14	RB24085	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
P4121-01	COMP-1	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
P4121-02	COMP-2	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
P4138-02	LIBERTY-AVE-TP-COMP	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
P4140-01	MOO-23-00305	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
PB163550BL	PBS550	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : rsul-9-20 **WorkList ID :** 183676 **Department :** Distillation **Date :** 09-20-2024 08:20:13

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4138-02	LIBERTY-AVE-TP-COMP	Solid	Reactive Sulfide	Cool 4 deg C	TULL02	J31	09/20/2024	9034
P4119-01	TRANSFOMER-OIL	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	J12	09/19/2024	9034
P4119-03	OILY-DEBRIS	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	J12	09/19/2024	9034
P4120-14	RB24085	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	J13	09/19/2024	9034
P4121-01	COMP-1	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	J13	09/19/2024	9034
P4121-02	COMP-2	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	J13	09/19/2024	9034
P4140-01	MOO-23-00305	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	J31	09/20/2024	9034
P4103-02	WC-22A	Solid	Reactive Sulfide	Cool 4 deg C	ENTA05	J11	09/17/2024	9034
P4103-05	WC-14-5-7.5A	Solid	Reactive Sulfide	Cool 4 deg C	ENTA05	J11	09/17/2024	9034
P4103-08	WC-14-5-7.5B	Solid	Reactive Sulfide	Cool 4 deg C	ENTA05	J11	09/17/2024	9034
P4103-11	WC-14-7.5-10A	Solid	Reactive Sulfide	Cool 4 deg C	ENTA05	J11	09/17/2024	9034
P4103-14	WC-14-7.5-10B	Solid	Reactive Sulfide	Cool 4 deg C	ENTA05	J11	09/17/2024	9034
P4103-17	WC-23	Solid	Reactive Sulfide	Cool 4 deg C	ENTA05	J11	09/17/2024	9034

Date/Time 09/23/2024 08.20
Raw Sample Received by: RM (WC)
Raw Sample Relinquished by: FEDEX

Date/Time 09/23/2024 09.00
Raw Sample Received by: FEDEX
Raw Sample Relinquished by: RM (WC)

Alliance TECHNICAL GROUP

Soil/Sludge Cyanide Preparation Sheet

PB163619

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

SDG No : N/A **Start Digest Date:** 09/24/2024 **Time :** 09:00 **Temp :** 124 °C

Matrix : SOLID **End Digest Date:** 09/24/2024 **Time :** 10:30 **Temp :** 126 °C

Pippete ID : WC

Balance ID : WC SC-4

Hood ID : HOOD#1 **Digestion tube ID :** M5595 **Block Thermometer ID :** WC CYANIDE

Block ID : MC-1, MC-2 **Filter paper ID :** N/A **Prep Technician Signature:** JP

Weigh By : JP **pH Meter ID :** N/A **Supervisor Signature:** IC

Standared Name	MLS USED	STD REF. # FROM LOG
LCSS	1ML	WP109549
MS/MSD SPIKE SOL.	0.40ML	WP108641
PBS003	50ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50ML	WP108640
50% v/v H2SO4	5ML	WP108076
51% w/v MgCL2	2ML	WP108075
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
S0	S0	N/A	N/A
S5.0	S5.0	N/A	N/A
S10.0	S10.0	N/A	N/A
S100.0	S100.0	N/A	N/A
S250.0	S250.0	N/A	N/A
S500.0	S500.0	N/A	N/A
ICV	ICV	0.5ML	W3011
ICB	ICB	N/A	N/A
CCV	CCV	N/A	N/A
CCB	CCB	N/A	N/A
Midrange	Midrange	N/A	N/A
HIGHSTD	HIGHSTD	5.0ML	WP108641
LOWSTD	LOWSTD	0.1ML	WP108641

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
09.24.2024, 10:45	JP (GC)	NF(WC)
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Cyanide Preparation Sheet

PB163619

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P4103-01	WC-22A	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-01DUP	WC-22ADUP	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-01MS	WC-22AMS	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-01MSD	WC-22AMSD	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-04	WC-14-5-7.5A	1.05	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-07	WC-14-5-7.5B	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-10	WC-14-7.5-10A	1.03	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-13	WC-14-7.5-10B	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
P4103-16	WC-23	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
PB163619BL	PB163619BL	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
PB163619BS	LCS619	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : cn p4103 **WorkList ID :** 183701 **Department :** Distillation **Date :** 09-20-2024 13:11:04

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-01	WC-22A	Solid	Cyanide	Cool 4 deg C	ENTA05	J11	09/17/2024	9012B
P4103-04	WC-14-5-7.5A	Solid	Cyanide	Cool 4 deg C	ENTA05	J11	09/17/2024	9012B
P4103-07	WC-14-5-7.5B	Solid	Cyanide	Cool 4 deg C	ENTA05	J11	09/17/2024	9012B
P4103-10	WC-14-7.5-10A	Solid	Cyanide	Cool 4 deg C	ENTA05	J11	09/17/2024	9012B
P4103-13	WC-14-7.5-10B	Solid	Cyanide	Cool 4 deg C	ENTA05	J11	09/17/2024	9012B
P4103-16	WC-23	Solid	Cyanide	Cool 4 deg C	ENTA05	J11	09/17/2024	9012B

Date/Time 09.24.2024, 08:00
Raw Sample Received by: M (6°C)
Raw Sample Relinquished by: IT (SM)

Date/Time 09.24.2024, 10:00
Raw Sample Received by: IT (SM)
Raw Sample Relinquished by: M (6°C)

Alliance TECHNICAL GROUP

Water ASTM Ammonia Preparation Sheet

PB163633

SOP ID : MSM4500-NH3 B,G-Ammonia-17

SDG No : N/A

Start Digest Date: 09/23/2024 **Time :** 14:35 **Temp :** 150 °C

Matrix : WATER

End Digest Date: 09/23/2024 **Time :** 15:35 **Temp :** 160 °C

IT bath 09/23/2024 16.00 150 c] RM
09/23/2024 17.00 150 c

Pippete ID : WC

Balance ID : N/A

Hood ID : HOOD#2 **Digestion tube ID :** M5595 **Block Thermometer ID :** WC CYANIDE

Block ID : WC-DIST-BLOCK-1 **Filter paper ID :** N/A **Prep Technician Signature:** RM

Weigh By : N/A **pH Meter ID :** N/A **Supervisor Signature:** 12

Standared Name	MLS USED	STD REF. # FROM LOG
LCSW	1.0ML	WP109834
MS/MSD SPIKE SOL.	1.0ML	WP109833
PBW	50.0ML	W3112
RL CHECK	0.1ML	WP109833
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP108708
NAOH 6N	0.5-2.0ML	WP108660
H2SO4 0.04N	5.0ML	WP107527
pH strip-Ammonia	N/A	W3133
KI-starch paper	N/A	W2965
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:

ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT
WP108814

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
09/23/2024 17:15	RM CWC	RM CWC
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Water ASTM Ammonia Preparation Sheet

PB163633

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P4103-03	WC-22A	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4103-03DUP	WC-22ADUP	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4103-03MS	WC-22AMS	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4103-03MSD	WC-22AMSD	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4103-06	WC-14-5-7.5A	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4103-09	WC-14-5-7.5B	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4103-12	WC-14-7.5-10A	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4103-15	WC-14-7.5-10B	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4103-18	WC-23	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB163633BL	PBW633	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB163633BS	LCS633	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : astm ammonia-9-23 **WorkList ID :** 183725 **Department :** Distillation **Date :** 09-23-2024 10:24:10

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4103-03	WC-22A	Solid	ASTM Ammonia	Cool 4 deg C	ENTA05	J11	09/17/2024	SM4500-NH3
P4103-06	WC-14-5-7.5A	Solid	ASTM Ammonia	Cool 4 deg C	ENTA05	J11	09/17/2024	SM4500-NH3
P4103-09	WC-14-5-7.5B	Solid	ASTM Ammonia	Cool 4 deg C	ENTA05	J11	09/17/2024	SM4500-NH3
P4103-12	WC-14-7.5-10A	Solid	ASTM Ammonia	Cool 4 deg C	ENTA05	J11	09/17/2024	SM4500-NH3
P4103-15	WC-14-7.5-10B	Solid	ASTM Ammonia	Cool 4 deg C	ENTA05	J11	09/17/2024	SM4500-NH3
P4103-18	WC-23	Solid	ASTM Ammonia	Cool 4 deg C	ENTA05	J11	09/17/2024	SM4500-NH3

Date/Time 09/23/2024 14:00

Raw Sample Received by: RM (WC)

Raw Sample Relinquished by: [illegible] (WC)

Date/Time [illegible]

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

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Fax : 908 789 8922

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB132516

Review By	Niha	Review On	9/20/2024 7:32:27 AM
Supervise By	Iwona	Supervise On	9/20/2024 10:14:08 AM
SubDirectory	LB132516	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP109797,WP109798,WP109799,WP109800,WP109801,WP109802,WP109803
ICV Standard	WP109805
CCV Standard	WP109798
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP109068,WP107283,WP109804

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	09/19/24 10:20		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	09/19/24 10:20		Niha	OK
3	10PPBCN	10PPBCN	CAL3	09/19/24 10:20		Niha	OK
4	50PPBCN	50PPBCN	CAL4	09/19/24 10:20		Niha	OK
5	100PPBCN	100PPBCN	CAL5	09/19/24 10:20		Niha	OK
6	250PPBCN	250PPBCN	CAL6	09/19/24 10:20		Niha	OK
7	500PPBCN	500PPBCN	CAL7	09/19/24 10:20		Niha	OK
8	ICV1	ICV1	ICV	09/19/24 11:10		Niha	OK
9	ICB1	ICB1	ICB	09/19/24 11:11		Niha	OK
10	CCV1	CCV1	CCV	09/19/24 11:11		Niha	OK
11	CCB1	CCB1	CCB	09/19/24 11:11		Niha	OK
12	PB163518BL	PB163518BL	MB	09/19/24 11:11		Niha	OK
13	P4085-02	COMP-1	SAM	09/19/24 11:11		Niha	OK
14	P4085-02DUP	COMP-1DUP	DUP	09/19/24 11:18		Niha	OK
15	P4085-04	COMP-2	SAM	09/19/24 11:18		Niha	OK
16	P4087-02	NB-614-COMP-01	SAM	09/19/24 11:18		Niha	OK
17	P4087-08	NB-614-COMP-02	SAM	09/19/24 11:18		Niha	OK
18	P4087-14	NB-614-COMP-03	SAM	09/19/24 11:18		Niha	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB132516

Review By	Niha	Review On	9/20/2024 7:32:27 AM
Supervise By	Iwona	Supervise On	9/20/2024 10:14:08 AM
SubDirectory	LB132516	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP109797,WP109798,WP109799,WP109800,WP109801,WP109802,WP109803
ICV Standard	WP109805
CCV Standard	WP109798
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP109068,WP107283,WP109804

19	P4087-20	NB-614-COMP-04	SAM	09/19/24 11:18		Niha	OK
20	P4087-26	NB-614-COMP-05	SAM	09/19/24 11:18		Niha	OK
21	P4087-32	NB-614-COMP-06	SAM	09/19/24 11:18		Niha	OK
22	CCV2	CCV2	CCV	09/19/24 11:18		Niha	OK
23	CCB2	CCB2	CCB	09/19/24 11:18		Niha	OK
24	P4088-02	NB-614-COMP-07	SAM	09/19/24 11:18		Niha	OK
25	P4088-08	NB-614-COMP-08	SAM	09/19/24 11:26		Niha	OK
26	P4088-14	NB-614-COMP-09	SAM	09/19/24 11:26		Niha	OK
27	P4089-02	365-351-294	SAM	09/19/24 11:26		Niha	OK
28	P4097-02	RT2299	SAM	09/19/24 11:26		Niha	OK
29	P4103-02	WC-22A	SAM	09/19/24 11:26		Niha	OK
30	P4103-05	WC-14-5-7.5A	SAM	09/19/24 11:26		Niha	OK
31	P4103-08	WC-14-5-7.5B	SAM	09/19/24 11:26		Niha	OK
32	P4103-11	WC-14-7.5-10A	SAM	09/19/24 11:26		Niha	OK
33	P4103-14	WC-14-7.5-10B	SAM	09/19/24 11:26		Niha	OK
34	CCV3	CCV3	CCV	09/19/24 11:26		Niha	OK
35	CCB3	CCB3	CCB	09/19/24 11:26		Niha	OK
36	P4103-17	WC-23	SAM	09/19/24 11:32		Niha	OK
37	PB163520BL	PB163520BL	MB	09/19/24 12:18		Niha	OK
38	P4085-05	PURGE-WATER	SAM	09/19/24 12:18		Niha	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB132516

Review By	Niha	Review On	9/20/2024 7:32:27 AM
Supervise By	Iwona	Supervise On	9/20/2024 10:14:08 AM
SubDirectory	LB132516	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP109797,WP109798,WP109799,WP109800,WP109801,WP109802,WP109803
ICV Standard	WP109805
CCV Standard	WP109798
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP109068,WP107283,WP109804

39	P4085-05DUP	PURGE-WATERDUP	DUP	09/19/24 12:18		Niha	OK
40	CCV4	CCV4	CCV	09/19/24 12:31		Niha	OK
41	CCB4	CCB4	CCB	09/19/24 12:31		Niha	OK

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Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB132518

Review By	jignesh	Review On	9/20/2024 8:32:23 AM
Supervise By	Iwona	Supervise On	9/20/2024 9:25:54 AM
SubDirectory	LB132518	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	09/19/24 16:20		Jignesh	OK
2	CAL2	CAL2	CAL	09/19/24 16:21		Jignesh	OK
3	CAL3	CAL3	CAL	09/19/24 16:22		Jignesh	OK
4	ICV	ICV	ICV	09/19/24 16:25		Jignesh	OK
5	CCV1	CCV1	CCV	09/19/24 16:30		Jignesh	OK
6	P4103-02	WC-22A	SAM	09/19/24 16:33		Jignesh	OK
7	P4103-02DUP	WC-22ADUP	DUP	09/19/24 16:34		Jignesh	OK
8	P4103-05	WC-14-5-7.5A	SAM	09/19/24 16:40		Jignesh	OK
9	P4103-08	WC-14-5-7.5B	SAM	09/19/24 16:47		Jignesh	OK
10	P4103-11	WC-14-7.5-10A	SAM	09/19/24 16:50		Jignesh	OK
11	P4103-14	WC-14-7.5-10B	SAM	09/19/24 16:55		Jignesh	OK
12	P4103-17	WC-23	SAM	09/19/24 17:00		Jignesh	OK
13	P4119-01	TRANSFOMER-OIL	SAM	09/19/24 17:02		Jignesh	OK
14	P4119-03	OILY-DEBRIS	SAM	09/19/24 17:05		Jignesh	OK
15	P4120-14	RB24085	SAM	09/19/24 17:11		Jignesh	OK
16	CCV2	CCV2	CCV	09/19/24 17:15		Jignesh	OK
17	P4121-01	COMP-1	SAM	09/19/24 17:22		Jignesh	OK
18	P4121-02	COMP-2	SAM	09/19/24 17:25		Jignesh	OK

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Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB132518

Review By	jignesh	Review On	9/20/2024 8:32:23 AM
Supervise By	Iwona	Supervise On	9/20/2024 9:25:54 AM
SubDirectory	LB132518	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

19	CCV3	CCV3	CCV	09/19/24 17:28		Jignesh	OK

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Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QCBatch ID # LB132520

Review By	Niha	Review On	9/20/2024 3:40:49 PM
Supervise By	Iwona	Supervise On	9/20/2024 3:56:49 PM
SubDirectory	LB132520	Test	TS

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	LB132520BL	LB132520BL	MB	09/19/24 11:00		Niha	OK
2	P4103-03	WC-22A	SAM	09/19/24 11:00		Niha	OK
3	P4103-03DUP	WC-22ADUP	DUP	09/19/24 11:00		Niha	OK
4	P4103-06	WC-14-5-7.5A	SAM	09/19/24 11:00		Niha	OK
5	P4103-09	WC-14-5-7.5B	SAM	09/19/24 11:00		Niha	OK
6	P4103-12	WC-14-7.5-10A	SAM	09/19/24 11:00		Niha	OK
7	P4103-15	WC-14-7.5-10B	SAM	09/19/24 11:00		Niha	OK
8	P4103-18	WC-23	SAM	09/19/24 11:00		Niha	OK

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Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QCBatch ID # LB132521

Review By	Niha	Review On	9/20/2024 3:39:55 PM
Supervise By	Iwona	Supervise On	9/20/2024 3:56:35 PM
SubDirectory	LB132521	Test	TVS

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	LB132521BL	LB132521BL	MB	09/19/24 16:00		Niha	OK
2	P4103-03	WC-22A	SAM	09/19/24 16:00		Niha	OK
3	P4103-03DUP	WC-22ADUP	DUP	09/19/24 16:00		Niha	OK
4	P4103-06	WC-14-5-7.5A	SAM	09/19/24 16:00		Niha	OK
5	P4103-09	WC-14-5-7.5B	SAM	09/19/24 16:00		Niha	OK
6	P4103-12	WC-14-7.5-10A	SAM	09/19/24 16:00		Niha	OK
7	P4103-15	WC-14-7.5-10B	SAM	09/19/24 16:00		Niha	OK
8	P4103-18	WC-23	SAM	09/19/24 16:00		Niha	OK

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Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB132537

Review By	rubina	Review On	9/23/2024 9:45:48 AM
Supervise By	Iwona	Supervise On	9/23/2024 9:57:15 AM
SubDirectory	LB132537	Test	Hexavalent Chromium

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	WP109756,WP107791,WP107796,WP108645

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	09/20/24 17:00		rubina	OK
2	CAL2	CAL2	CAL	09/20/24 17:01		rubina	OK
3	CAL3	CAL3	CAL	09/20/24 17:02		rubina	OK
4	CAL4	CAL4	CAL	09/20/24 17:03		rubina	OK
5	CAL5	CAL5	CAL	09/20/24 17:04		rubina	OK
6	CAL6	CAL6	CAL	09/20/24 17:05		rubina	OK
7	CAL7	CAL7	CAL	09/20/24 17:06		rubina	OK
8	ICV	ICV	ICV	09/20/24 17:07		rubina	OK
9	ICB	ICB	ICB	09/20/24 17:08		rubina	OK
10	CCV1	CCV1	CCV	09/20/24 17:09		rubina	OK
11	CCB1	CCB1	CCB	09/20/24 17:10		rubina	OK
12	RL Check	RL Check	SAM	09/20/24 17:11		rubina	OK
13	PB163530BL	PB163530BL	MB	09/20/24 17:12		rubina	OK
14	PB163530BS	PB163530BS	LCS	09/20/24 17:13		rubina	OK
15	P4103-01	WC-22A	SAM	09/20/24 17:14		rubina	OK
16	P4103-04	WC-14-5-7.5A	SAM	09/20/24 17:15		rubina	OK
17	P4103-07	WC-14-5-7.5B	SAM	09/20/24 17:16		rubina	OK
18	P4103-10	WC-14-7.5-10A	SAM	09/20/24 17:17		rubina	OK

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

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB132537

Review By	rubina	Review On	9/23/2024 9:45:48 AM
Supervise By	Iwona	Supervise On	9/23/2024 9:57:15 AM
SubDirectory	LB132537	Test	Hexavalent Chromium

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	WP109756,WP107791,WP107796,WP108645

19	P4103-13	WC-14-7.5-10B	SAM	09/20/24 17:18		rubina	OK
20	P4103-16	WC-23	SAM	09/20/24 17:19		rubina	OK
21	P4103-16DUP	WC-23DUP	DUP	09/20/24 17:20		rubina	OK
22	P4103-16MSPre	WC-23MS	MS	09/20/24 17:21		rubina	OK
23	CCV2	CCV2	CCV	09/20/24 17:22		rubina	OK
24	CCB2	CCB2	CCB	09/20/24 17:23		rubina	OK
25	P4103-16MS2Ins	WC-23MS	MS	09/20/24 17:24		rubina	OK
26	P4103-16MS3Post	WC-23MS	MS	09/20/24 17:25		rubina	OK
27	P4120-13	RB24085	SAM	09/20/24 17:26		rubina	OK
28	P4125-01	PL-01-09192024	SAM	09/20/24 17:27		rubina	OK
29	P4126-01	NB-08-09192024	SAM	09/20/24 17:28		rubina	OK
30	CCV3	CCV3	CCV	09/20/24 17:29		rubina	OK
31	CCB3	CCB3	CCB	09/20/24 17:30		rubina	OK

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Instrument ID: FLAME

Daily Analysis Runlog For Sequence/QCBatch ID # LB132545

Review By	rubina	Review On	9/24/2024 12:39:01 PM
Supervise By	Iwona	Supervise On	9/24/2024 4:13:19 PM
SubDirectory	LB132545	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	P4103-02	WC-22A	SAM	09/24/24 09:25		rubina	OK
2	P4103-02DUP	WC-22ADUP	DUP	09/24/24 09:32		rubina	OK
3	P4103-05	WC-14-5-7.5A	SAM	09/24/24 09:40		rubina	OK
4	P4103-08	WC-14-5-7.5B	SAM	09/24/24 09:48		rubina	OK
5	P4103-11	WC-14-7.5-10A	SAM	09/24/24 09:55		rubina	OK
6	P4103-14	WC-14-7.5-10B	SAM	09/24/24 10:15		rubina	OK
7	P4103-17	WC-23	SAM	09/24/24 10:22		rubina	OK
8	P4119-03	OILY-DEBRIS	SAM	09/24/24 10:30		rubina	OK
9	P4120-13	RB24085	SAM	09/24/24 10:38		rubina	OK
10	P4121-01	COMP-1	SAM	09/24/24 10:45		rubina	OK
11	P4121-02	COMP-2	SAM	09/24/24 10:52		rubina	OK
12	P4123-02	613-D	SAM	09/24/24 11:00		rubina	OK
13	P4138-02	LIBERTY-AVE-TP-CO	SAM	09/24/24 11:08		rubina	OK
14	P4140-01	MOO-23-00305	SAM	09/24/24 11:15		rubina	OK
15	P4144-02	1-3-SBG	SAM	09/24/24 11:22		rubina	OK
16	P4144-04	4-6-SBG	SAM	09/24/24 11:30		rubina	OK
17	P4148-01	STOCK-PILE	SAM	09/24/24 11:37		rubina	OK
18	P4148-02	STOCK-PILE	SAM	09/24/24 11:45		rubina	OK

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Instrument ID: FLAME

Daily Analysis Runlog For Sequence/QCBatch ID # LB132545

Review By	rubina	Review On	9/24/2024 12:39:01 PM
Supervise By	Iwona	Supervise On	9/24/2024 4:13:19 PM
SubDirectory	LB132545	Test	Ignitability

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

19	P4153-01	1577	SAM	09/24/24 11:52		rubina	OK

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Instrument ID: FILTER/GRAVIMETRIC

Daily Analysis Runlog For Sequence/QCBatch ID # LB132546

Review By	rubina	Review On	9/23/2024 2:02:55 PM
Supervise By	Iwona	Supervise On	9/23/2024 2:24:28 PM
SubDirectory	LB132546	Test	Paint Filter

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	P4103-01	WC-22A	SAM	09/23/24 09:20		rubina	OK
2	P4103-04	WC-14-5-7.5A	SAM	09/23/24 09:27		rubina	OK
3	P4103-07	WC-14-5-7.5B	SAM	09/23/24 09:35		rubina	OK
4	P4103-10	WC-14-7.5-10A	SAM	09/23/24 09:42		rubina	OK
5	P4103-13	WC-14-7.5-10B	SAM	09/23/24 09:50		rubina	OK
6	P4103-16	WC-23	SAM	09/23/24 09:58		rubina	OK
7	P4142-01	OR-02-09202024	SAM	09/23/24 10:05		rubina	OK
8	P4142-01DUP	OR-02-09202024DUP	DUP	09/23/24 10:12		rubina	OK

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Instrument ID: TITRAMETRIC

Daily Analysis Runlog For Sequence/QCBatch ID # LB132552

Review By	rubina	Review On	9/23/2024 1:08:56 PM
Supervise By	Iwona	Supervise On	9/23/2024 1:10:07 PM
SubDirectory	LB132552	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,W2977

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	PB163550BL	PB163550BL	MB	09/23/24 11:10		rubina	OK
2	P4103-02	WC-22A	SAM	09/23/24 11:13		rubina	OK
3	P4103-02DUP	WC-22ADUP	DUP	09/23/24 11:15		rubina	OK
4	P4103-05	WC-14-5-7.5A	SAM	09/23/24 11:18		rubina	OK
5	P4103-08	WC-14-5-7.5B	SAM	09/23/24 11:20		rubina	OK
6	P4103-11	WC-14-7.5-10A	SAM	09/23/24 11:22		rubina	OK
7	P4103-14	WC-14-7.5-10B	SAM	09/23/24 11:25		rubina	OK
8	P4103-17	WC-23	SAM	09/23/24 11:28		rubina	OK
9	P4119-01	TRANSFOMER-OIL	SAM	09/23/24 11:30		rubina	OK
10	P4119-03	OILY-DEBRIS	SAM	09/23/24 11:33		rubina	OK
11	P4120-14	RB24085	SAM	09/23/24 11:35		rubina	OK
12	P4121-01	COMP-1	SAM	09/23/24 11:38		rubina	OK
13	P4121-02	COMP-2	SAM	09/23/24 11:40		rubina	OK
14	P4138-02	LIBERTY-AVE-TP-CO	SAM	09/23/24 11:43		rubina	OK
15	P4140-01	MOO-23-00305	SAM	09/23/24 11:45		rubina	OK

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Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QCBatch ID # LB132556

Review By	jignesh	Review On	9/24/2024 10:00:16 AM
Supervise By	Iwona	Supervise On	9/24/2024 10:56:11 AM
SubDirectory	LB132556	Test	ASTM TS

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	LB132556BL	LB132556BL	MB	09/23/24 11:00		jignesh	OK
2	P4103-03	WC-22A	SAM	09/23/24 11:00		jignesh	OK
3	P4103-03DUP	WC-22ADUP	DUP	09/23/24 11:00		jignesh	OK
4	P4103-06	WC-14-5-7.5A	SAM	09/23/24 11:00		jignesh	OK
5	P4103-09	WC-14-5-7.5B	SAM	09/23/24 11:00		jignesh	OK
6	P4103-12	WC-14-7.5-10A	SAM	09/23/24 11:00		jignesh	OK
7	P4103-15	WC-14-7.5-10B	SAM	09/23/24 11:00		jignesh	OK
8	P4103-18	WC-23	SAM	09/23/24 11:00		jignesh	OK

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Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QCBatch ID # LB132564

Review By	jignesh	Review On	9/24/2024 1:11:00 PM
Supervise By	Iwona	Supervise On	9/24/2024 4:15:20 PM
SubDirectory	LB132564	Test	ASTM Oil and Grease

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	W3110,M6069,EP2540,WP108566,NA,NA,WP108567,NA,WP108568

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB132564BL	LB132564BL	MB	09/24/24 11:45		jignesh	OK
2	LB132564BS	LB132564BS	LCS	09/24/24 11:45		jignesh	OK
3	P4103-03	WC-22A	SAM	09/24/24 11:45		jignesh	OK
4	P4103-03DUP	WC-22ADUP	DUP	09/24/24 11:45		jignesh	OK
5	P4103-03MS	WC-22AMS	MS	09/24/24 11:45		jignesh	OK
6	P4103-03MSD	WC-22AMSD	MSD	09/24/24 11:45		jignesh	OK
7	P4103-06	WC-14-5-7.5A	SAM	09/24/24 11:45		jignesh	OK
8	P4103-09	WC-14-5-7.5B	SAM	09/24/24 11:45		jignesh	OK
9	P4103-12	WC-14-7.5-10A	SAM	09/24/24 11:45		jignesh	OK
10	P4103-15	WC-14-7.5-10B	SAM	09/24/24 11:45		jignesh	OK
11	P4103-18	WC-23	SAM	09/24/24 11:45		jignesh	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB132565

Review By	rubina	Review On	9/25/2024 11:55:06 AM
Supervise By	Iwona	Supervise On	9/25/2024 11:55:46 AM
SubDirectory	LB132565	Test	ASTM Ammonia

STD. NAME	STD REF.#
ICAL Standard	WP109847
ICV Standard	WP109849
CCV Standard	WP109848
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP109834
Chk Standard	WP108309,WP108741,WP108709,WP108840

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	09/24/24 09:40		rubina	OK
2	0.1PPM	0.1PPM	CAL2	09/24/24 09:40		rubina	OK
3	0.2PPM	0.2PPM	CAL3	09/24/24 09:40		rubina	OK
4	0.4PPM	0.4PPM	CAL4	09/24/24 09:40		rubina	OK
5	1.0PPM	1.0PPM	CAL5	09/24/24 09:40		rubina	OK
6	1.3PPM	1.3PPM	CAL6	09/24/24 09:40		rubina	OK
7	2.0PPM	2.0PPM	CAL7	09/24/24 09:40		rubina	OK
8	ICV1	ICV1	ICV	09/24/24 10:29		rubina	OK
9	ICB1	ICB1	ICB	09/24/24 10:29		rubina	OK
10	CCV1	CCV1	CCV	09/24/24 10:29		rubina	OK
11	CCB1	CCB1	CCB	09/24/24 10:29		rubina	OK
12	RL	RL	SAM	09/24/24 10:29		rubina	OK
13	PB163633BL	PB163633BL	MB	09/24/24 10:29		rubina	OK
14	PB163633BS	PB163633BS	LCS	09/24/24 10:40		rubina	OK
15	P4103-03	WC-22A	SAM	09/24/24 10:40		rubina	OK
16	P4103-03DUP	WC-22ADUP	DUP	09/24/24 10:40		rubina	OK
17	P4103-03MS	WC-22AMS	MS	09/24/24 10:40		rubina	OK
18	P4103-03MSD	WC-22AMSD	MSD	09/24/24 10:40		rubina	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB132565

Review By	rubina	Review On	9/25/2024 11:55:06 AM
Supervise By	Iwona	Supervise On	9/25/2024 11:55:46 AM
SubDirectory	LB132565	Test	ASTM Ammonia

STD. NAME	STD REF.#
ICAL Standard	WP109847
ICV Standard	WP109849
CCV Standard	WP109848
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP109834
Chk Standard	WP108309,WP108741,WP108709,WP108840

19	P4103-06	WC-14-5-7.5A	SAM	09/24/24 10:40		rubina	OK
20	P4103-09	WC-14-5-7.5B	SAM	09/24/24 10:40		rubina	OK
21	P4103-12	WC-14-7.5-10A	SAM	09/24/24 10:50		rubina	OK
22	CCV2	CCV2	CCV	09/24/24 10:50		rubina	OK
23	CCB2	CCB2	CCB	09/24/24 10:50		rubina	OK
24	P4103-15	WC-14-7.5-10B	SAM	09/24/24 10:50		rubina	OK
25	P4103-18	WC-23	SAM	09/24/24 10:50		rubina	OK
26	CCV3	CCV3	CCV	09/24/24 10:50		rubina	OK
27	CCB3	CCB3	CCB	09/24/24 10:50		rubina	OK

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Instrument ID: SPECTROPHOTOMETER-2

Daily Analysis Runlog For Sequence/QCBatch ID # LB132579

Review By	Niha	Review On	9/25/2024 9:56:16 AM
Supervise By	Iwona	Supervise On	9/25/2024 10:36:52 AM
SubDirectory	LB132579	Test	ASTM COD

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	W3068,WP108671,WP108668,WP108666,WP108669,WP108667,WP108665,WP109777,WP109776

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	07/09/24 14:20		Niha	OK
2	CAL2	CAL2	CAL	07/09/24 14:20		Niha	OK
3	CAL3	CAL3	CAL	07/09/24 14:21		Niha	OK
4	CAL4	CAL4	CAL	07/09/24 14:21		Niha	OK
5	CAL5	CAL5	CAL	07/09/24 14:22		Niha	OK
6	ICV	ICV	ICV	07/09/24 14:22		Niha	OK
7	ICB	ICB	ICB	07/09/24 14:23		Niha	OK
8	CCV1	CCV1	CCV	09/24/24 14:00		Niha	OK
9	CCB1	CCB1	CCB	09/24/24 14:00		Niha	OK
10	LB132579BL	LB132579BL	MB	09/24/24 14:01		Niha	OK
11	LB132579BS	LB132579BS	LCS	09/24/24 14:01		Niha	OK
12	P4103-03	WC-22A	SAM	09/24/24 14:02		Niha	OK
13	P4103-03DUP	WC-22ADUP	DUP	09/24/24 14:02		Niha	OK
14	P4103-03MS	WC-22AMS	MS	09/24/24 14:03	0.5ml WP109774 + 9.5ml Sample0.5ml WP109774 + 9.5ml Sample	Niha	OK
15	P4103-03MSD	WC-22AMSD	MSD	09/24/24 14:03	0.5ml WP109774 + 9.5ml Sample	Niha	OK
16	P4103-06	WC-14-5-7.5A	SAM	09/24/24 14:04		Niha	OK
17	P4103-09	WC-14-5-7.5B	SAM	09/24/24 14:04		Niha	OK

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Instrument ID: SPECTROPHOTOMETER-2

Daily Analysis Runlog For Sequence/QCBatch ID # LB132579

Review By	Niha	Review On	9/25/2024 9:56:16 AM
Supervise By	Iwona	Supervise On	9/25/2024 10:36:52 AM
SubDirectory	LB132579	Test	ASTM COD

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	W3068,WP108671,WP108668,WP108666,WP108669,WP108667,WP108665,WP109777,WP109776

18	P4103-12	WC-14-7.5-10A	SAM	09/24/24 14:05		Niha	OK
19	P4103-15	WC-14-7.5-10B	SAM	09/24/24 14:05		Niha	OK
20	CCV2	CCV2	CCV	09/24/24 14:06		Niha	OK
21	CCB2	CCB2	CCB	09/24/24 14:06		Niha	OK
22	P4103-18	WC-23	SAM	09/24/24 14:07		Niha	OK
23	CCV3	CCV3	CCV	09/24/24 14:07		Niha	OK
24	CCB3	CCB3	CCB	09/24/24 14:08		Niha	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB132584

Review By	Niha	Review On	9/25/2024 12:35:07 PM
Supervise By		Supervise On	
SubDirectory	LB132584	Test	Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP109869,WP109870,WP109871,WP109872,WP109873,WP109874,WP109875
ICV Standard	W3011
CCV Standard	WP109870
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP109549
Chk Standard	WP109068,WP107283,WP109876

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	09/24/24 13:48		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	09/24/24 13:48		Niha	OK
3	10PPBCN	10PPBCN	CAL3	09/24/24 13:48		Niha	OK
4	50PPBCN	50PPBCN	CAL4	09/24/24 13:48		Niha	OK
5	100PPBCN	100PPBCN	CAL5	09/24/24 13:48		Niha	OK
6	250PPBCN	250PPBCN	CAL6	09/24/24 13:48		Niha	OK
7	500PPBCN	500PPBCN	CAL7	09/24/24 13:49		Niha	OK
8	ICV1	ICV1	ICV	09/24/24 17:17		Niha	OK
9	ICB1	ICB1	ICB	09/24/24 17:17		Niha	OK
10	CCV1	CCV1	CCV	09/24/24 17:17		Niha	OK
11	CCB1	CCB1	CCB	09/24/24 17:17		Niha	OK
12	PB163619BL	PB163619BL	MB	09/24/24 17:17		Niha	OK
13	PB163619BS	PB163619BS	LCS	09/24/24 17:25		Niha	OK
14	LOWPB163619	LOWPB163619	SAM	09/24/24 17:25		Niha	OK
15	HIGHPB163619	HIGHPB163619	SAM	09/24/24 17:25		Niha	OK
16	P4103-01	WC-22A	SAM	09/24/24 17:25		Niha	OK
17	P4103-01DUP	WC-22ADUP	DUP	09/24/24 17:25		Niha	OK
18	P4103-01MS	WC-22AMS	MS	09/24/24 17:25		Niha	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB132584

Review By	Niha	Review On	9/25/2024 12:35:07 PM
Supervise By		Supervise On	
SubDirectory	LB132584	Test	Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP109869,WP109870,WP109871,WP109872,WP109873,WP109874,WP109875
ICV Standard	W3011
CCV Standard	WP109870
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP109549
Chk Standard	WP109068,WP107283,WP109876

19	P4103-01MSD	WC-22AMSD	MSD	09/24/24 17:32		Niha	OK
20	P4103-04	WC-14-5-7.5A	SAM	09/24/24 17:32		Niha	OK
21	P4103-07	WC-14-5-7.5B	SAM	09/24/24 17:32		Niha	OK
22	CCV2	CCV2	CCV	09/24/24 17:40		Niha	OK
23	CCB2	CCB2	CCB	09/24/24 17:40		Niha	OK
24	P4103-10	WC-14-7.5-10A	SAM	09/24/24 17:40		Niha	OK
25	P4103-13	WC-14-7.5-10B	SAM	09/24/24 17:40		Niha	OK
26	P4103-16	WC-23	SAM	09/24/24 17:47		Niha	OK
27	CCV3	CCV3	CCV	09/24/24 17:52		Niha	OK
28	CCB3	CCB3	CCB	09/24/24 17:52		Niha	OK

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Prep Standard - Chemical Standard Summary

Order ID : P4103

Test : ASTM Ammonia,ASTM COD,ASTM Oil and Grease,ASTM TS,Corrosivity,Cyanide,Hexavalent Chromium,Ignitability,Paint Filter,Percent Solids,Reactive Cyanide,Reactive Sulfide,TS,TVS

Prepbatch ID : PB163518,PB163530,PB163550,PB163619,PB163633,

Sequence ID/Qc Batch ID: LB132516,LB132518,LB132520,LB132521,LB132537,LB132545,LB132546,LB132552,LB132556,LB13

Standard ID :

EP2540,WP107283,WP107363,WP107364,WP107527,WP107791,WP107796,WP108008,WP108075,WP108076,WP108309,WP108566,WP108567,WP108568,WP108640,WP108641,WP108645,WP108658,WP108659,WP108660,WP108661,WP108663,WP108664,WP108665,WP108666,WP108667,WP108668,WP108669,WP108671,WP108708,WP108709,WP108741,WP108780,WP108840,WP109068,WP109549,WP109630,WP109756,WP109774,WP109775,WP109776,WP109777,WP109796,WP109797,WP109798,WP109799,WP109800,WP109801,WP109802,WP109803,WP109804,WP109805,WP109833,WP109834,WP109847,WP109848,WP109849,WP109866,WP109869,WP109870,WP109871,WP109872,WP109873,WP109874,WP109875,WP109876,

Chemical ID :

E3551,E3657,E3726,E3788,M5037,M5211,M5673,M5878,M5929,M5943,M5947,M5954,M6069,W1992,W1993,W2202,W2511,W2606,W2651,W2652,W2666,W2668,W2699,W2700,W2725,W2784,W2817,W2858,W2871,W2882,W2926,W2965,W2977,W2979,W3001,W3005,W3009,W3011,W3019,W3058,W3068,W3071,W3072,W3082,W3093,W3094,W3104,W3105,W3107,W3110,W3111,W3112,W3113,W3114,W3120,W3132,W3133,W3138,W3139,

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Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2540	09/17/2024	01/03/2025	Rajesh Parikh	Extraction_SCALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 09/17/2024

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
539	CN BUFFER	WP107283	04/04/2024	10/04/2024	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 04/09/2024

FROM 138.00000gram of W2668 + 862.00000ml of W2606 = 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
153	Ammonia Stock Std. (1000 ppm)	WP107363	04/09/2024	10/09/2024	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 04/09/2024

FROM 3.81900gram of W1993 + 996.18100ml of W2606 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1895	Ammonia Stock Std, 1000PPM-SS	WP107364	04/09/2024	10/09/2024	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 04/09/2024

FROM 3.81900gram of W1992 + 996.18100ml of W2606 = 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
1597	0.04 N H2SO4	WP107527	04/18/2024	10/18/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Sohil Jodhani 04/19/2024

FROM 1.00000ml of M5037 + 999.00000ml of W2606 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
126	5N sulfuric acid	WP107791	05/07/2024	10/24/2024	Niha Farheen Shaik	None	None	Iwona Zarych 05/07/2024

FROM 140.00000ml of M5211 + 860.00000ml of W2606 = Final Quantity: 1.000 L

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1836	HNO3 Hex-Chrome, 5M	WP107796	05/07/2024	10/24/2024	Rubina Mughal	None	None	Iwona Zarych 05/07/2024

FROM 320.00000ml of M5878 + 680.00000ml of W2606 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
190	HEX CHROME PHOSPHATE BUFFER	WP108008	05/20/2024	10/24/2024	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 05/20/2024

FROM 0.84500L of W2606 + 68.04000gram of W2699 + 87.09000gram of W2511 = Final Quantity: 1.000 L

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3214	Magnesium Chloride For Cyanide 2.5M(51%W/V)	WP108075	05/22/2024	10/24/2024	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 05/24/2024

FROM 500.00000ml of W2606 + 510.00000gram of W3001 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1714	Sulfuric Acid, 50% (v/v)	WP108076	05/22/2024	10/24/2024	Rubina Mughal	None	None	Iwona Zarych 05/24/2024

FROM 1000.00000ml of M5673 + 1000.00000ml of W2606 = Final Quantity: 2000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
740	sodium nitroferricyanide for ammonia	WP108309	05/31/2024	10/24/2024	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 06/03/2024

FROM 0.05000gram of W2666 + 99.95000ml of W2606 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
229	1:1 HCL	WP108566	06/27/2024	10/24/2024	Jignesh Parikh	None	None	Iwona Zarych 06/27/2024

FROM 500.00000ml of M5943 + 500.00000ml of W2606 = Final Quantity: 1.000 L

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2470	1664A SPIKING SOLN	WP108567	06/27/2024	12/25/2024	Jignesh Parikh	None	None	Iwona Zarych 06/27/2024

FROM 1000.00000ml of E3726 + 4.00000gram of W2817 + 4.00000gram of W2871 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3374	1664A QCS spiking solution-SS	WP108568	06/27/2024	12/25/2024	Jignesh Parikh	WETCHEM_SCALE_4 (WCSC-4)	None	Iwona Zarych 06/27/2024

FROM 1000.00000ml of E3726 + 4.00000gram of W3009 + 4.00000gram of W3082 = 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
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
3850	Cyanide MS-MSD spiking solution, 5PPM	WP108641	07/05/2024	09/30/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/08/2024

FROM 1.00000ml of W3104 + 199.00000ml of WP108640 = Final Quantity: 200.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3354	Hexchrome Cleaning Solution	WP108645	07/05/2024	12/27/2024	Rubina Mughal	None	None	Iwona Zarych 07/08/2024

FROM 182.00000ml of M5947 + 727.00000ml of W3112 + 91.00000ml of M5954 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1993	HEXAVALENTCHROMIUM STOCK STD 1, 50PPM	WP108658	07/09/2024	01/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 07/09/2024

FROM 0.14140gram of W2651 + 1000.00000ml 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
1994	HEXAVALENTCHROMIUM STOCK STD 2, 50PPM	WP108659	07/09/2024	01/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 07/09/2024

FROM 0.14140gram of W2652 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1471	NaOH Solution, 6N	WP108660	07/09/2024	01/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 07/09/2024

FROM 240.00000gram of W3113 + 760.00000ml 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
1796	NaOH, 0.1N	WP108661	07/09/2024	01/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 07/09/2024

FROM 4.00000gram of W3113 + 996.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2456	COD Stock std, 1000ppm	WP108663	07/09/2024	07/16/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 07/11/2024

FROM 0.08500gram of W2784 + 100.00000ml of W3112 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2457	COD Stock std-SS, 1000ppm	WP108664	07/09/2024	07/16/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 07/11/2024

FROM 0.08500gram of W3111 + 100.00000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
139	COD calibration std. 0 ppm	WP108665	07/09/2024	07/16/2024	Niha Farheen Shaik	None	None	Iwona Zarych 07/11/2024

FROM 10.00000ml of W3112 = Final Quantity: 10.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
138	COD calibration std. 10 ppm	WP108666	07/09/2024	07/16/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/11/2024

FROM 9.90000ml of W3112 + 0.10000ml of WP108663 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
137	COD calibration std. 50 ppm	WP108667	07/09/2024	07/16/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/11/2024

FROM 9.50000ml of W3112 + 0.50000ml of WP108663 = Final Quantity: 10.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
136	COD calibration std. 100 ppm	WP108668	07/09/2024	07/16/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/11/2024

FROM 9.00000ml of W3112 + 1.00000ml of WP108663 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
135	COD calibration std. 150 ppm	WP108669	07/09/2024	07/16/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/11/2024

FROM 8.50000ml of W3112 + 1.50000ml of WP108663 = Final Quantity: 10.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2459	COD ICV-LCS std, 50ppm	WP108671	07/09/2024	07/16/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/11/2024

FROM 9.50000ml of W3112 + 0.50000ml of WP108664 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1494	BORATE BUFFER	WP108708	07/11/2024	01/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Mohan Bera 07/17/2024

FROM 0.90250L of W3112 + 9.50000gram of W2700 + 88.00000ml of WP108661 = Final Quantity: 1.000 L

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
290	Phenol reagent for Ammonia	WP108709	07/11/2024	01/11/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Mohan Bera 07/17/2024

FROM 3.20000gram of W3113 + 8.30000gram of W2858 + 88.80000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
289	Sodium Hypochlorite for Ammonia	WP108741	07/16/2024	09/30/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 07/17/2024

FROM 50.00000ml of W3112 + 50.00000ml of W3120 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
635	EDTA BUFFER FOR AMMONIA	WP108840	07/26/2024	01/26/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 07/26/2024

FROM 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml 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
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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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
148	hexchrome digestion fluid	WP109630	09/06/2024	10/06/2024	Rubina Mughal	WETCHEM_SCALE_4 (WCSC-4)	None	Jignesh Parikh 09/10/2024

FROM 120.00000gram of W3058 + 4.00000L of W3112 + 80.00000gram of W3113 = Final Quantity: 4000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
114	hexavalent chromium color reagent	WP109756	09/17/2024	09/24/2024	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 09/17/2024

FROM 0.25000gram of W2979 + 50.00000ml of E3788 = 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
2456	COD Stock std, 1000ppm	WP109774	09/19/2024	09/26/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 09/19/2024

FROM 0.08500gram of W3111 + 100.00000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2457	COD Stock std-SS, 1000ppm	WP109775	09/19/2024	09/26/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 09/19/2024

FROM 0.08500gram of W3111 + 100.00000gram of W2784 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2458	COD CCV std, 50ppm	WP109776	09/19/2024	09/26/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 09/19/2024

FROM 9.50000ml of W3112 + 0.50000ml of WP109774 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2459	COD ICV-LCS std, 50ppm	WP109777	09/19/2024	09/26/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 09/19/2024

FROM 9.50000ml of W3112 + 0.50000ml of WP109775 = Final Quantity: 10.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3456	Cyanide Intermediate Working Std, 5PPM	WP109796	09/19/2024	09/20/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 0.25000ml of W3104 + 49.75000ml of WP108640 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4	Calibation standard 500 ppb	WP109797	09/19/2024	09/20/2024	Niha Farheen Shaik	None	None	Mohan Bera 09/24/2024

FROM 45.00000ml of WP108640 + 5.00000ml of WP109796 = 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
3761	Calibration-CCV CN Standard 250 ppb	WP109798	09/19/2024	09/20/2024	Niha Farheen Shaik	None	None	Mohan Bera 09/24/2024

FROM 2.50000ml of WP109796 + 47.50000ml of WP108640 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
6	Calibration Standard 100 ppb	WP109799	09/19/2024	09/20/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 1.00000ml of WP109796 + 49.00000ml 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
7	Calibration Standard 50 ppb	WP109800	09/19/2024	09/20/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 0.50000ml of WP109796 + 49.50000ml of WP108640 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
8	Calibration Standard 10 ppb	WP109801	09/19/2024	09/20/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 1.00000ml of WP109797 + 49.00000ml 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
9	Calibration Standard 5 ppb	WP109802	09/19/2024	09/20/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 0.50000ml of WP109797 + 49.50000ml of WP108640 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
167	0 ppb CN calibration std	WP109803	09/19/2024	09/20/2024	Niha Farheen Shaik	None	None	Mohan Bera 09/24/2024

FROM 50.00000ml 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
1582	Chloramine T solution, 0.014M	WP109804	09/19/2024	09/20/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Mohan Bera 09/24/2024

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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2168	RCN ICV STD, 100 PPB	WP109805	09/19/2024	09/20/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 1.00000ml of WP109549 + 49.00000ml 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
1322	Ammonia Intermediate Std, 50PPM	WP109833	09/23/2024	10/09/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 95.00000ml of W3112 + 5.00000ml of WP107363 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1639	Ammonia Intermediate Std-Second source, 50PPM	WP109834	09/23/2024	10/09/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 95.00000ml of W3112 + 5.00000ml of WP107364 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
275	Ammonia Calibration Std. (2 ppm)	WP109847	09/24/2024	09/25/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 48.00000ml of W3112 + 2.00000ml of WP109833 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
285	Ammonia CCV Std. (1 ppm)	WP109848	09/24/2024	09/25/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 49.00000ml of W3112 + 1.00000ml of WP109833 = 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
286	Ammonia ICV Std. (1 ppm)	WP109849	09/24/2024	09/25/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 49.00000ml of W3112 + 1.00000ml of WP109834 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3456	Cyanide Intermediate Working Std, 5PPM	WP109866	09/24/2024	09/25/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 0.25000ml of W3104 + 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
4	Calibation standard 500 ppb	WP109869	09/24/2024	09/25/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 45.00000ml of WP108640 + 5.00000ml of WP109866 = 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	WP109870	09/24/2024	09/25/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 2.50000ml of WP109866 + 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	WP109871	09/24/2024	09/25/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 1.00000ml of WP109866 + 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	WP109872	09/24/2024	09/25/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 0.50000ml of WP109866 + 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	WP109873	09/24/2024	09/25/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 1.00000ml of WP109869 + 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	WP109874	09/24/2024	09/25/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Mohan Bera 09/24/2024

FROM 0.50000ml of WP109869 + 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	WP109875	09/24/2024	09/25/2024	Niha Farheen Shaik	None	None	Mohan Bera 09/24/2024

FROM 50.00000ml 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	WP109876	09/24/2024	09/25/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Mohan Bera 09/24/2024

FROM 0.08000gram of W3139 + 20.00000ml of W3112 = 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.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	01/03/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

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-9254-03 / Acetone, Ultra Resi (cs/4x4L)	1234	12/25/2024	02/26/2024 / Rajesh	02/23/2024 / Rajesh	E3726

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	23H1462005	02/13/2025	08/13/2024 / Rajesh	08/13/2024 / Rajesh	E3788

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	0000250349	12/15/2024	01/06/2022 / mohan	09/18/2021 / mohan	M5037

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	22D0862014	01/20/2025	08/22/2022 /	04/26/2022 / mohan	M5211

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	09/21/2023 / mohan	09/05/2023 / mohan	M5673

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	23I0662003	10/28/2024	05/02/2024 / Al-Terek	04/26/2024 / Al-Terek	M5878

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 #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	12/24/2024	06/24/2024 / Al-Terek	06/21/2024 / Al-Terek	M5943

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	12/27/2024	06/27/2024 / Al-Terek	06/23/2024 / Al-Terek	M5947

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	01/02/2025	07/01/2024 / Al-Terek	06/25/2024 / Al-Terek	M5954

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140440 / TEST PAPERS,PH,0-2.5,.2SENSI, 100PK	80A0441	02/29/2028	09/03/2024 / jignesh	08/19/2024 / Jaswal	M6069

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	WL13B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1992

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	XE09B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1993

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3252-1 / POTAS PHOSPHATE, DIBASIC PWD, ACS, 500G	0000207436	04/29/2025	05/22/2019 / AMANDEEP	03/21/2019 / apatel	W2511

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	87683 / Sodium Nitroferricyanide 250g	W12F013	02/10/2030	02/10/2020 / apatel	02/10/2020 / apatel	W2666

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.	J3246-1 / POTAS PHOSPHATE, MONO, CRYS, ACS, 500G	04/2019-20	04/23/2025	04/23/2020 / apatel	03/11/2020 / apatel	W2699

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3568-1 / Sodium Borate, 500 gms	2019111354	04/23/2025	04/23/2020 / apatel	03/11/2020 / apatel	W2700

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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.	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.	A12244 / Stearic acid, 98%, 100 g	U20E006	04/02/2026	04/02/2021 / apatel	04/02/2021 / apatel	W2817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P1060-10 / PHENOL, ACS, 500G	M13H048	01/07/2026	07/07/2021 / apatel	07/07/2021 / apatel	W2858

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	H223-57 / Hexadecane, 99.0%	0000266903	05/04/2027	09/07/2021 / apatel	08/26/2021 / apatel	W2871

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

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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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140730 / TEST PAPER,POT.IOD-STRCH,PK100,CS12	60799-008,260	09/19/2027	09/19/2022 / jignesh	09/19/2022 / jignesh	W2965

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	4210G90	10/31/2024	11/15/2022 / Iwona	11/15/2022 / Iwona	W2977

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	01237-10KG / Megnasium Chloride Hexahydrate ACS 10KG	002251-03319	06/06/2027	01/23/2023 / Iwona	06/06/2022 / Iwona	W3001

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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	H223-57 / Hexadecane, 99.0%	SHBP8192	02/27/2028	02/27/2023 / lwona	02/27/2023 / lwona	W3009

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	/ ICV-CN	ICV6-400	12/31/2024	01/03/2024 / lwona	02/20/2020 / lwona	W3011

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-SX0395-3 / SODIUM CARBONATE ANHYDR 2.5KG	2023012653	10/19/2028	09/03/2024 / jignesh	10/19/2023 / lwona	W3058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Environmental Express LTD	B1010 / COD Digestion Vials Low Level 0-150Mg/L	3GE1024	05/31/2028	11/14/2023 /	11/14/2023 / lwona	W3068

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

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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.	A12244 / Stearic acid, 98%, 100 g	U23E020	02/26/2029	02/26/2024 / Iwona	02/26/2024 / Iwona	W3082

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

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	1404G63	09/30/2024	04/22/2024 / Iwona	04/22/2024 / Iwona	W3104

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

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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	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	235898	02/28/2029	06/27/2024 / jignesh	06/26/2024 / jignesh	W3110

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.	PC19510-7 / Sodium Hydroxide Pellets 12 Kg	23B1556310	12/31/2025	07/08/2024 / Iwona	07/08/2024 / Iwona	W3113

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J9416-1 / Sodium Hypochlorite 500 ml	4403M08	09/30/2024	07/15/2024 / Iwona	07/15/2024 / Iwona	W3120

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC05050-1 / EDTA, disodium salt, dihydrate 1 lb	2ND0156	07/10/2026	07/26/2024 / Iwona	07/26/2024 / Iwona	W3132

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140476 / Test Paper,PH Short Range 9.0/10.0	L23	08/22/2029	08/22/2024 / Iwona	08/22/2024 / Iwona	W3133

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

Alfa Aesar

Certificate of analysis

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

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

Traceable to NIST? Yes

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Certificate of Analysis

Date of Release: ***12/18/2013***

Product: ***Ammonium Chloride GR ACS*** ***Catalog No.:*** ***AX1270 all size codes***

Grade: ***Meets ACS Specifications*** ***CAS #:*** ***12125-02-9***

Country of Origin: ***India*** ***FW:*** ***53.49***

Lot No.: ***WL13B*** ClH_4N

	Requirement			
Characteristic	**Minimum**	**Maximum**	**Results**	**UOM**
Assay (argentometric)	99.5		99.9	%
Calcium (Ca)		0.001	0.0001	%
Form	White crystals		White crystals	
Heavy metals (as Pb)		5	5	ppm
Identification	To pass test		Passes	
Insoluble matter		0.005	0.002	%
Iron (Fe)		2	2	ppm
Loss on drying (105 C)		0.5	0.21	%
Magnesium (Mg)		5	0.6	ppm
pH of a 5% solution at 25 C	4.5	5.5	4.76	
Phosphate (PO4)		2	2	ppm
Residue after ignition		0.01	0.002	%
Sulfate (SO4)		0.002	0.002	%

Joe Schoellkopff

Quality Control Manager

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EMD Millipore Corporation
290 Concord Road
Billerica, MA 01821

Certificate of Analysis

Date of Release: ***5/12/2014***

Product: ***Ammonium Chloride GR ACS*** ***Catalog No.:*** ***AX1270 all size codes***

Grade: ***Meets ACS Specifications*** ***CAS #:*** ***12125-02-9***

Country of Origin: ***India*** ***FW:*** ***53.49***

Lot No.: ***XE09B*** ClH_4N

Characteristic	Requirement Minimum	Maximum	Results	UOM
Assay (argentometric)	99.5		99.8	%
Calcium (Ca)		0.001	0.0001	%
Form	White crystals		White crystals	
Heavy metals (as Pb)		5	5	ppm
Identification	To pass test		Passes	
Insoluble matter		0.005	0.002	%
Iron (Fe)		2	2	ppm
Loss on drying (105 C)		0.5	0.22	%
Magnesium (Mg)		5	0.7	ppm
pH of a 5% solution at 25 C	4.5	5.5	4.95	
Phosphate (PO4)		2	2	ppm
Residue after ignition		0.01	0.002	%
Sulfate (SO4)		0.002	0.002	%

Joe Schoellkopff

Quality Control Manager

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

EMD Millipore Corporation
290 Concord Road
Billerica, MA 01821

Subject to Vadodara Jurisdiction

CPC Industries

CHAMPA PURIE-CHEM INDUSTRIES

ISO 9001 : 2015 CERTIFIED COMPANY

Importers Exporters Manufacturers & Marketing of Fine Chemicals & Pharmaceuticals

262-263, G.I.D.C. Estate,
Makarpura,
Vadodara - 390 010.
Gujarat - INDIA.

Phone : (F) +91-265-2633314 / 2643723
Fax : (F) +91-265-2638036
E-mail : info@cpcindia.com
Web : www.cpcindia.com

CERTIFICATE OF ANALYSIS

PRODUCT : POTASSIUM PHOSPHATE MONOBASIC Anhy. - ACS

CERTIFICATE NO : 04/2019-20 DATE 13-05-2019

Date of receipt of sample : 29.04.2019 Quantity : 1000 KGS.

Batch No. /Lot No : 04/2019-20

Mfg. Date : April-2019

1. Characteristic : A White powder

2. Identification : Positive

	RESULT OBTAINED	LIMITS
3. Clearity and colour of solution	: 10% solution is clear and colourless	
4. Assay (on dry basis)	99.35%	Min.99.00%
5. PH (5% solution)	4.28	4.1-4.5
6. Loss on Drying	0.06%	Max 0.2%
7. Heavy Metals	0.0004%	Max.0.001%
8. iron	0.001%	Max 0.002%
9. Sulphate	0.0015%	Max. 0.003%
10. Chloride	0.0005%	Max.0.001%
11. Insoluble Matter	0.002%	Max. 0.01%
12. Sodium	0.0038%	Max. 0.005%

The sample does comply with specification as per Above.

Analysed by J. A. PATHAK

Quality Control Department

ThermoFisher SCIENTIFIC

Certificate of Analysis

Product No.: 13450

Product: Potassium dichromate, ACS, 99.0% min

Lot No.: T15F019

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

Hexadecane, 99.0%

Material No.: H223-57
Batch No.: 0000266903
Manufactured Date: 2020/05/05
Retest Date: 2027/05/04
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay ($CH_3(CH_2)_{14}CH_3$) (by GC)	>= 99.0 %	99.3
Infrared Spectrum	Passes Test	PT

For Laboratory, Research or Manufacturing Use

Country of Origin: US
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

W2511 Received on 3/26/2019 by AP

Potassium Phosphate, Dibasic, Powder
BAKER ANALYZED® A.C.S. Reagent

(dipotassium hydrogen phosphate)

Material No.: 3252-01
Batch No.: 0000207436
Manufactured Date: 2018/05/01
Retest Date: 2025/04/29
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay (K_2HPO_4) (by acidimetry)	>= 98.0 %	99.2
Insoluble Matter	<= 0.01 %	< 0.01
Loss on Drying at 105°C	<= 1.0 %	< 1.0
pH of 5% Solution at 25°C	8.5 - 9.6	9.1
Chloride (Cl)	<= 0.003 %	< 0.003
Fluoride (F)	<= 0.001 %	< 0.001
Nitrogen Compounds (as N)	<= 0.001 %	< 0.001
Sulfate (SO_4)	<= 0.005 %	< 0.005
Trace Impurities - Iron (Fe)	<= 0.001 %	< 0.001
Sodium (Na)	<= 0.05 %	< 0.05
Trace Impurities - Arsenic (As)	<= 1.000 ppm	< 1.000
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	< 5
Trace Impurities - Lead (Pb)	<= 5.000 ppm	< 5.000
Color (APHA), For Information Only		5

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

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

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

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

ThermoFisher SCIENTIFIC

Certificate of Analysis

W2858 Received by AP on 07/07/2021

Product No.: 33213

Product: Phenol, ACS, 99+%, stab.

Lot No.: M13H048

Test	Limits	Results
Assay	99.0 % min	99.8 %
Freezing point	40.5ºC min	40.5 ºC
Clarity of solution	To pass test	Passes
Residue after evaporation	0.05 % max	< 0.05 %
Water	0.5 % max	0.2 %

Retest date: January 7, 2026

ThermoFisher SCIENTIFIC

Certificate of Analysis

W2666 Recived on 02/10/2020 by AP

Product No.: 87683

Product: Sodium pentacyanonitrosylferrate(III) dihydrate, ACS, 99.0-102.0%

Lot No.: W12F013

Test	Limits	Results
Assay	99.0 - 102.0 %	99.67 %
Insoluble	0.01 % max	0.0079 %
Chloride	0.02 % max	Not detected
Sulfate	To pass test	Passes test
Aqueous solubility	To pass test	Passes test
Limit on Ferricyanide	To pass test	Passes test
Limit on Ferrocyanide	To pass test	Passes test

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

ThermoFisher SCIENTIFIC

W2817
Rec. 04/02/2021

Product Specification

Product Name: Stearic acid, 98%, Thermo Scientific Chemicals
Catalog Number: A12244.14

CAS Number:	57-11-4
Molecular Formula:	C18H36O2
Molecular Weight:	284.48
InChI Key:	QIQXTHQIDYTFRH-UHFFFAOYSA-N
SMILES:	CCCCCCCCCCCCCCCCCC(O)=O
Synonym:	stearic acid acide stearique hydrofol acid 1855 hydrofol acid 1655 industrene 5016 stearic acid, ion(1-) (8CI) glycon TP glycon DP acidum stearinicul hydrofol acid 150

Product Specification

Appearance (Color):	White
Form:	Crystals or powder or crystalline powder or flakes or waxy solid
Assay (Silylated GC):	≥97.5%
Melting Point (clear melt):	67.0-74.0?C

Date Of Print: 11/30/2023

Product Specifications are subject to amendment and may change over time. Data contained is accurate as of the date printed.

RICCA CHEMICAL COMPANY®

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

~~W2918~~ W3001 Rec. 06/06/22 Exp. 06/06/27

Chem-Impex International, Inc.

Tel: (630) 766-2112
E-mail: sales@chemimpex.com
Shipping and Correspondence:
935 Dillon Drive
Wood Dale, IL 60191

Fax: (630) 766-2218
Web site: www.chemimpex.com
Manufacturing site:
825 Dillon Drive
Wood Dale, IL 60191

Certificate of Analysis

Catalogue Number	01237
Product	**Magnesium chloride hexahydrate**
Lot Number	002251-03319
	Magnesium chloride•$6H_2O$
CAS Number	7791-18-6
Molecular Formula	$MgCl_2$•$6H_2O$
Molecular Weight	203.3

Appearance	Colorless crystals, very deliquescent
Heavy Metals	< 5 ppm
Anion	Nitrate : < 0.001% Phosphate : < 5 ppm Sulfate : < 0.002%
Cation	Ammonium : < 0.002% Barium : < 0.005% Calcium : 0.0006% Iron : < 5 ppm Manganese : 1.8 ppm Potassium : 0.0006% Sodium : 0.0008% Strontium : 0.0015%
Insoluble material	0.0025%
Assay by titration	100.29%
Grade	ACS reagent
Storage	Store at RT
Country of Origin	India

Certificate of Analysis

Catalog Number: 01237 **Lot Number: 002251-03319**

Remarks	See material safety data sheet for additional information
	For laboratory use only

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

Bala Kumar
Quality Control Manager

Sigma-Aldrich

W3009

rec. 2/27/2023 12

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:
Hexadecane - ReagentPlus® , 99%

Product Number:	**H6703**
Batch Number:	**SHBP8192**
Brand:	SIAL
CAS Number:	544-76-3
MDL Number:	MFCD00008998
Formula:	C16H34
Formula Weight:	226.44 g/mol
Quality Release Date:	04 AUG 2022

$CH_3(CH_2)_{14}CH_3$

Test	Specification	Result
Appearance (Color)	Colorless or White	Colorless
Appearance (Form)	Liquid or Solid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Refractive index at 20 ° C	1.432 - 1.436	1.435
Purity (GC)	≥ 98.5 %	99.3 %
Color Test	≤ 20 APHA	< 5 APHA

Larry Coers, Director
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich.

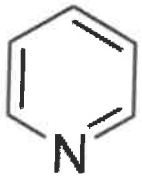
W3019
Rec 4/3/23

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

Certificate Of Analysis

W 3058

Rec. 10/19/23 12

Date of Release: 1/27/2023

Name: **Sodium Carbonate, Anhydrous**
Powder, ACS
Item No: **SX0395 All Sizes**
Lot / Batch No: **2023012653**
Country of Origin: **India**

Item	Specifications	Analysis
Assay (calculated on dried substance)	99.5% min.	100.2%
Calcium (Ca)	0.03% max.	0.004%
Chloride (Cl)	0.001% max.	<0.001%
Color	White	Passes Test
Form	Powder	Passes Test
Heavy metals (by ICP-OES)	5 ppm max.	<5 ppm
Insoluble Matter	0.01% max.	0.003%
Iron (Fe)	5 ppm max.	<5 ppm
Loss on heating at 285C	1.0% max.	0.1%
Magnesium (Mg)	0.005% max.	0.0008%
Phosphate (PO4)	0.001% max.	<0.001%
Potassium (K)	0.005% max.	0.003%
Silica (SiO2)	0.005% max.	<0.005%
Sulfur compounds (as SO4)	0.003% max.	<0.003%

Joe Schoellkopff

Quality Control Manager

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EMD Millipore is a division of Merck KGaA, Darmstadt, Germany

EMD Millipore Corporation
400 Summit Drive
Burlington, MA 01803
U.S.A.

ENVIRONMENTAL EXPRESS
Charleston, SC USA
www.envexp.com
(800) 343-5319

W 3065
W 3066
W 3067
W 3068

Rec. 11/14/23
12

August 16, 2023

CERTIFICATE OF ANALYSIS

Environmental Express certifies that the following COD Reagent Vials have been rigorously checked against NIST Traceable standards and also compared for conformance to another major brand name product. Environmental Express COD Vial performance is evaluated using bench top spectrophotometers. Acceptance guidelines are strict and ensure dependable, quality results.

Environmental Express further certifies that the COD products listed below are recognized by the United States Environmental Protection Agency (USEPA) as equivalent to an approved Water Pollutant Testing Procedure for COD (Federal Register, Vol. 45, No. 78, Monday, April 20th, 1980, page 26811) and as such can be used for National Pollution Discharge Elimination System (NPDES) reporting.

Cat. No.	Lot No.	Product Description
B1010	3GE1024	COD Reagent Vials, 0 - 150 ppm

RICCA CHEMICAL COMPANY®

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

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

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

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

Certificate Of Analysis

Date of Release: 11/14/2019

W2700 Recived by AP on 3/11/2020

Name: **Sodium Borate, Decahydrate**
ACS

Item No: **SX0355 All Sizes**
Lot / Batch No: **2019111354**
Country of Origin: **India**

Item	Specifications	Analysis
Assay (Na2B4O7 • 10H2O)	99.5 - 105.0%	101.7%
Calcium (Ca)	0.005% max.	0.003%
Chloride (Cl)	0.001% max.	<0.001%
Color	White	Passes Test
Form	Crystals	Passes Test
Heavy Metals (as Pb)	0.001% max.	<0.001%
Insoluble Matter	0.005% max.	0.002%
Iron (Fe)	5 ppm max.	<5 ppm
pH of a 0.01 M solution at 25C	9.15 - 9.20	9.17
Phosphate (PO4)	0.001% max.	<0.001%
Sulfate (SO4)	0.005% max.	<0.005%

Joe Schoellkopff

Quality Control Manager

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

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany

EMD Millipore Corporation
400 Summit Drive
Burlington, MA 01803
U.S.A.

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

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

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

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

ThermoFisher SCIENTIFIC

Certificate of Analysis

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

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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.

PRODUCTOS QUIMICOS MONTERREY, S.A. DE C.V.

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na_2SO_4
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na_2SO_4)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO_4)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreing matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

Recd. by RB on 7/24/23 E3551

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

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker®

Material No.: 9254-03
Batch No.: 23H1462005
Manufactured Date: 2023-07-26
Expiration Date: 2026-07-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected for water)	≥ 99.4 %	99.7 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	≤ 0.3	0.1
Titrable Base (µeq/g)	≤ 0.6	< 0.1
Water (H_2O)	≤ 0.5 %	0.3 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1

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

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

Recd. by RP on 8/13/24

E 3788

Ken Koehnlein
Sr. Manager, Quality Assurance

W3011
W3012
W3013
W3014
W3015

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

ICV5-0415 For the cold vapor analysis of mercury by AA: dilute the ICV5 concentrate 100-fold with 2% (v/v) nitric acid; pipet 1 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide: dilute the ICV6 concentrate 100-fold with Type II water; pipet 1 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

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

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

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

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

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

M5037-38-39-40
ND

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 0000250349
Manufactured Date: 2019/12/17
Retest Date: 2024/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (H_2SO_4)	95.0 - 98.0 %	96.5
Appearance	Passes Test	PT
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Substances Reducing Permanganate (as SO_2)	<= 2 ppm	< 2
Ammonium (NH_4)	<= 1 ppm	< 1
Chloride (Cl)	<= 0.1 ppm	< 0.1
Nitrate (NO_3)	<= 0.2 ppm	< 0.1
Phosphate (PO_4)	<= 0.5 ppm	< 0.1
Trace Impurities - Aluminum (Al)	<= 30.0 ppb	0.2
Arsenic and Antimony (as As)	<= 4 ppb	< 2
Trace Impurities - Barium (Ba)	<= 10.0 ppb	< 1.0
Trace Impurities - Beryllium (Be)	<= 10.0 ppb	< 1.0
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 10.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 2.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	2.9
Trace Impurities - Chromium (Cr)	<= 6.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 0.5 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 10.0 ppb	< 1.0
Trace Impurities - Germanium (Ge)	<= 10.0 ppb	< 10.0
Trace Impurities - Gold (Au)	<= 10.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 500 ppb	< 100

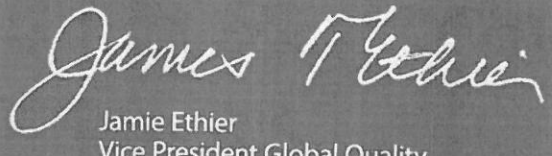
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9673-33
Batch No.: 0000250349

Test	Specification	Result
Trace Impurities - Iron (Fe)	<= 50.0 ppb	4.1
Trace Impurities - Lead (Pb)	<= 0.5 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 10.0 ppb	< 1.0
Trace Impurities - Magnesium (Mg)	<= 7.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	< 0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 2.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 10.0 ppb	< 1.0
Trace Impurities - Potassium (K)	<= 500.0 ppb	< 2.0
Trace Impurities - Selenium (Se)	<= 50.0 ppb	22.9
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 500.0 ppb	2.7
Trace Impurities - Strontium (Sr)	<= 5.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 10.0 ppb	< 5.0
Trace Impurities - Thallium (Tl)	<= 20.0 ppb	< 5.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 10.0 ppb	< 1.0
Trace Impurities - Vanadium (V)	<= 10.0 ppb	< 1.0
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 10.0 ppb	< 1.0

For Laboratory, Research or Manufacturing Use

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

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

M5210 - M5217
MB

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 22D0862014
Manufactured Date: 2022-02-23
Retest Date: 2027-02-22
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS - Assay (H_2SO_4)	95.0 - 98.0 %	96.5 %
Appearance	Passes Test	Passes Test
ACS - Color (APHA)	≤ 10	5
ACS - Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS - Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	< 1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities - Aluminum (Al)	≤ 30.0 ppb	1.7 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities - Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities - Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities - Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities - Gold (Au)	≤ 10.0 ppb	< 0.2 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities - Iron (Fe)	≤ 50.0 ppb	2.0 ppb
Trace Impurities - Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities - Magnesium (Mg)	≤ 7.0 ppb	0.6 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities - Nickel (Ni)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities - Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se)	≤ 50.0 ppb	12.1 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	4.4 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

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

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 22D0862014

Test	Specification	Result
Trace Impurities - Sodium (Na)	≤ 500.0 ppb	6.2 ppb
Trace Impurities - Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.6 ppb

For Laboratory,Research,or Manufacturing Use

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

James T Ethier

Jamie Ethier
Vice President Global Quality

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

9673- 33

avantor™ | J.T.Baker®

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

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H_2SO_4)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

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

avantor™ | J.T.Baker®

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

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

For Laboratory,Research,or Manufacturing Use

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

James T Ethier

Jamie Ethier
Vice President Global Quality

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

avantor™ | J.T.Baker®

MS943 MS944
MS945 MS946

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

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

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

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

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

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

James T Ethier

Jamie Ethier
Vice President Global Quality

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

avantor™ | J.T.Baker®

MS947 MS948 MS949
MS950 MS951 MS952

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

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

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

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

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

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

James T Ethier

Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

MS954 MS955 MS956
MS957 MS958

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

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

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

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

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

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

Test	Specification	Result

For Microelectronic Use

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

Jamie Croak
Director Quality Operations, Bioscience Production

R: 8/19/24 M6069

MACHEREY-NAGEL

Certificate of Analysis

Product information

Product	pH-Fix 0.3-2.3
REF	92180
LOT	80A0441
Expiration date:	29.02.2028
Date of examination:	23.01.2024
Gradation:	pH 0.3-0.7-1.0-1.3-1.6-1.9-2.3

Confirmation

Hereby we confirm, that the above mentioned product has successfully passed our quality control system in accordance with ISO 9001 and meets the specific quality criteria.

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

MACHEREY-NAGEL GmbH & Co. KG
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52355 Düren · Germany
www.mn-net.com

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FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com
US Tel.: +1 888 321 62 24 sales-us@mn-net.com

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

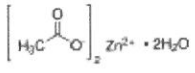
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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

RICCA CHEMICAL COMPANY®

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W2977 Rec 11/15/22

Certificate of Analysis

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

Lot Number: 4210G90 **Product Number:** 8000

Manufacture Date: OCT 17, 2022
Expiration Date: OCT 2024

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
8000-5	20 L Cubitainer®	24 months

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

Paul Brandon (10/17/2022)
Production Manager
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Sigma-Aldrich.

W 2979

Rec: 12/08/22

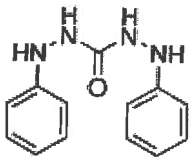
exp. 12/08/27

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:
1,5-Diphenylcarbazide - ACS reagent

Product Number:	**259225**
Batch Number:	**MKCR6636**
Brand:	SIAL
CAS Number:	140-22-7
MDL Number:	MFCD00003013
Formula:	C13H14N4O
Formula Weight:	242.28 g/mol
Quality Release Date:	02 JUN 2022



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

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

Certificate of analysis

W3082 Received on 2/26/2026 by IZ

Product No.:	A12244
Product:	Stearic acid, 98%
Lot No.:	U23E020

Appearance	White flakes
Assay	98.7 %

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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

RICCA CHEMICAL COMPANY®

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

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

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
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customerservice@riccachemical.com

W3104 Received on 4/22/24 by IZ

Certificate of Analysis

Cyanide Standard, 1000 ppm CN^-

Lot Number: 1404G63 **Product Number:** 2543

Manufacture Date: APR 12, 2024
Expiration Date: SEP 2024

This standard is prepared using accurate volumetric techniques from material that has been assayed against Silver Nitrate solution certified traceable to NIST Standard Reference Material 999. The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is the combined uncertainty based on the stability of the assayed Potassium Cyanide, and the uncertainty in the mass and volume measurements.
Use 0.16% (w/v) (0.04 N) Sodium Hydroxide or 0.225 % (w/v) (0.04 N) Potassium Hydroxide to make dilutions of this standard. Restandardize weekly if extreme accuracy is required.

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

Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN^-)	995-1005 ppm	1000 ppm

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

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

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

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

Heidi J Green (04/12/2024)

Operations Manager

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

RICCA CHEMICAL COMPANY®

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customerservice@riccachemical.com

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."

RICCA CHEMICAL COMPANY®

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customerservice@riccachemical.com

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
ThermoFisher SCIENTIFIC

W3110 SP update: 06/27/2024

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 – 0120633

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	H303	Quality Test / Release Date	02/23/2024
Lot Number	235898		
Description	HEXANES - OPTIMA		
Country of Origin	United States	Suggested Retest Date	Feb/2029
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	Clear, colorless liquid
ASSAY (N-HEXANE)	%	>= 60	73
ASSAY (SUM C6 HYDROCARBONS)	%	>= 99.9	>99.9
COLOR	APHA	<= 5	<5
DENSITY AT 25 DEGREES C	GM/ML	Inclusive Between 0.653 - 0.673	0.670
EVAPORATION RESIDUE	ppm	<= 1	0.3
FLUORESCENCE BACKGROUND	ppb	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 195 NM	ABS. UNITS	<= 1	0.64
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 0.25	0.16
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.07	0.06
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.005	0.002
PESTICIDE RESIDUE ANALYSIS	NG/L	<= 10	<10
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.375 - 1.385	1.380
SUITABILITY FOR GC/MS		= PASS TEST	PASS TEST
SULFUR COMPOUNDS	%	<= 0.005	<0.005
THIOPHENE	PASS/FAIL	= PASS TEST	PASS TEST
WATER (H2O)	%	<= 0.01	<0.01
WATER-SOLUBLE TITRABLE ACID	MEQ/G	<= 0.0003	0.0001

Harout Sahagian - 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.

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.

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.

Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: **0583**

Grade: **ACS GRADE**

Batch Number: **23B1556310**

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

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.

RICCA CHEMICAL COMPANY®

1841 Broad Street
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customerservice@riccachemical.com

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

RICCA CHEMICAL COMPANY®

W3120 Received on 7/15/24 by IZ

1490 Lammers Pike
Batesville, IN 47006
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Certificate of Analysis

Sodium Hypochlorite Solution, 5% available Chlorine

Lot Number: 4403M08 **Product Number:** 7495.5

Manufacture Date: MAR 25, 2024
Expiration Date: SEP 2024

This solution is subject to slow decomposition upon exposure to air. Keep container tightly capped. Refrigeration may improve stability.
When used in the Phenate method for Ammonia, APHA recommends replacing this solution about every 2 months.

Name	CAS#	Grade
Water	7732-18-5	Commercial
Sodium Hypochlorite	7681-52-9	Commercial

Test	Specification	Result	NIST SRM#
Appearance	Colorless to greenish-yellow liquid	Passed	
Assay (vs. Sodium Thiosulfate/Starch)	4.75-5.25 % (w/w) Cl_2	5.13 % (w/w) Cl_2	136

Specification	Reference
Sodium Hypochlorite, 5%	APHA (4500-NH3 F)
Sodium Hypochlorite	ASTM (D 4785)

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)
7495.5-1	4 L black poly	6 months
7495.5-16	500 mL amber poly	6 months

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

Paul Brandon (03/25/2024)
Production Manager
This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

spectrum® CHEMICAL MFG CORP

Certificate Of Analysis

Item Number	ED150	Lot Number	2ND0156
Item	Edetate Disodium, Dihydrate, USP	CAS Number	6381-92-6
Molecular Formula	$C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$	Molecular Weight	372.24

TEST	SPECIFICATION		RESULT
	MIN	MAX	
ASSAY (DRIED BASIS)	99.0	101.0 %	99.5 %
pH OF A 5% SOLUTION @ 25°C	4.0	6.0	4.6
LOSS ON DRYING	8.7	11.4 %	8.90 %
CALCIUM (Ca)	NO PRECIPITATE IS FORMED		NO PRECIPITATE IS FORMED
ELEMENTAL IMPURITIES:			.
NICKEL (Ni)	AS REPORTED		<0.3 ppm
CHROMIUM (Cr)	AS REPORTED		<0.3 ppm
NITRILOTRIACETIC ACID[$n[(HOCOCH_2)_3N]$]		0.1 %	<0.10 %
IDENTIFICATION A	MATCHES REFERENCE		MATCHES REFERENCE
IDENTIFICATION B	RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION		RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION
IDENTIFICATION C	MEETS THE REQUIREMENTS FOR SODIUM		MEETS THE REQUIREMENTS FOR SODIUM
CERTIFIED HALAL			CERTIFIED HALAL
EXPIRATION DATE			10-JUL-2026
DATE OF MANUFACTURE			11-JUL-2023
APPEARANCE			WHITE CRYSTALLINE POWDER
RESIDUAL SOLVENTS		AS REPORTED	NO RESIDUAL SOLVENTS PRESENT
MONOGRAPH EDITION			USP 2024

Certificate of Analysis Results Entered By:

CACEVEDO
Charmian Acevedo
22-MAY-24 08:12:30

Certificate of Analysis Results Approved By:

GHERRERA
Genaro Herrera
22-MAY-24 12:32:01

Spectrum Chemical Mfg Corp
755 Jersey Avenue
New Brunswick 08901 NJ

All pharmaceutical ingredients are tested using current edition of applicable pharmacopeia.

Read and understand label and SDS before handling any chemicals. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. It is the customer's responsibility to provide adequate hazardous material training and ensure that appropriate Personal Protective Equipment (PPE) is used before handling any chemical.

The Elemental Impurities standards implemented by USP and other Pharmaceutical Compendia reflect a growing understanding of the toxicology of trace levels of elemental impurities that can remain in drug substances originating from either raw materials or manufacturing processes. Identifying and quantifying impurities can be critical to predicting the best possible patient outcomes. Elemental Impurities has been a requirement of all products meeting USP/NF, EP and BP monographs since January 1, 2018. More information can be found in USP sections <232> Elemental Impurities – Limits and <233> Elemental Impurities – Procedures. Data for drug substances furnished by Spectrum Chemical Mfg. Corp can be used to ensure that patient daily exposures by oral administration to the selected elements are not exceeded in the formulation of pharmaceutical products.

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

PERCENT SOLID

Supervisor: sohil
Analyst: jignesh
Date: 9/20/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 09/19/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:22
Out Date: 09/20/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB132510

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
P4024-01	DDCD5	1	1.12	8.67	9.79	8.58	86.0	
P4024-02	DDCD5MS	2	1.12	8.67	9.79	8.58	86.0	
P4024-03	DDCD5MSD	3	1.12	8.67	9.79	8.58	86.0	
P4024-04	VHBLK001	4	1.00	1.00	2.00	2.00	100.0	vhblk
P4024-05	DDC36	5	1.16	8.40	9.56	7.77	78.7	
P4024-06	DDCL2	6	1.15	8.66	9.81	8.33	82.9	
P4103-01	WC-22A	7	1.18	8.49	9.67	9.05	92.7	
P4103-04	WC-14-5-7.5A	8	1.15	8.76	9.91	9.02	89.8	
P4103-07	WC-14-5-7.5B	9	1.14	8.83	9.97	9.1	90.1	
P4103-10	WC-14-7.5-10A	10	1.18	8.75	9.93	8.66	85.5	
P4103-13	WC-14-7.5-10B	11	1.14	8.42	9.56	8.56	88.1	
P4103-16	WC-23	12	1.15	8.73	9.88	8.66	86.0	
P4104-01	WC-14-5-7.5A-EPH-1	13	1.19	8.72	9.91	9.1	90.7	
P4104-02	WC-14-5-7.5A-EPH-2	14	1.17	8.61	9.78	8.95	90.4	
P4104-03	WC-14-5-7.5A-EPH-3	15	1.15	8.40	9.55	8.84	91.5	
P4104-04	WC-14-5-7.5A-EPH-4	16	1.12	8.84	9.96	8.48	83.3	
P4104-06	WC-14-5-7.5B-EPH-1	17	1.18	8.77	9.95	9.05	89.7	
P4104-07	WC-14-5-7.5B-EPH-2	18	1.15	8.62	9.77	8.87	89.6	
P4104-08	WC-14-5-7.5B-EPH-3	19	1.13	8.70	9.83	8.85	88.7	
P4104-09	WC-14-5-7.5B-EPH-4	20	1.15	8.82	9.97	8.91	88.0	
P4104-10	WC-14-5-7.5B-EPH-5	21	1.15	8.83	9.98	9.00	88.9	
P4104-11	WC-14-7.5-10A-EPH-1	22	1.15	8.80	9.95	9.19	91.4	
P4104-12	WC-14-7.5-10A-EPH-2	23	1.15	8.76	9.91	8.66	85.7	
P4104-13	WC-14-7.5-10A-EPH-3	24	1.15	8.81	9.96	9.12	90.5	
P4104-14	WC-14-7.5-10A-EPH-4	25	1.19	8.65	9.84	8.8	88.0	
P4104-15	WC-14-7.5-10A-EPH-5	26	1.15	8.41	9.56	8.7	89.8	
P4104-16	WC-14-7.5-10B-EPH-1	27	1.18	8.64	9.82	8.66	86.6	
P4104-17	WC-14-7.5-10B-EPH-2	28	1.15	8.83	9.98	8.75	86.1	

PERCENT SOLID

Supervisor: sohil
Analyst: jignesh
Date: 9/20/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 09/19/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:22
Out Date: 09/20/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB132510

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
P4104-18	WC-14-7.5-10B-EPH-3	29	1.15	8.82	9.97	8.93	88.2	
P4104-19	WC-14-7.5-10B-EPH-4	30	1.19	8.57	9.76	8.76	88.3	
P4104-20	WC-14-7.5-10B-EPH-5	31	1.16	8.61	9.77	8.81	88.9	
P4104-21	WC-22A-EPH-1	32	1.15	8.81	9.96	9.44	94.1	
P4104-22	WC-22A-EPH-2	33	1.18	8.50	9.68	8.41	85.1	
P4104-23	WC-22A-EPH-3	34	1.12	8.66	9.78	9.21	93.4	
P4104-24	WC-22A-EPH-4	35	1.16	8.67	9.83	9.2	92.7	
P4104-25	WC-22A-EPH-5	36	1.16	8.70	9.86	9.24	92.9	
P4104-26	WC-23-EPH-1	37	1.17	8.56	9.73	8.72	88.2	
P4104-27	WC-23-EPH-2	38	1.15	8.83	9.98	9.00	88.9	
P4104-28	WC-23-EPH-3	39	1.15	8.81	9.96	8.65	85.1	
P4104-29	WC-23-EPH-4	40	1.15	8.37	9.52	8.56	88.5	
P4104-30	WC-23-EPH-5	41	1.16	8.61	9.77	8.63	86.8	
P4117-01	MOO-SOIL-PILE	42	1.18	8.68	9.86	8.86	88.5	
P4119-01	TRANSFOMER-OIL	43	1.00	1.00	2.00	2.00	100.0	oil sample
P4119-03	OILY-DEBRIS	44	1.00	1.00	2.00	2.00	100.0	oily-debris
P4120-01	T1	45	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
P4120-03	T2	46	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
P4120-05	SF-6-A	47	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
P4120-07	SF-6-B	48	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
P4120-09	COMP-1	49	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
P4120-11	COMP-2	50	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
P4120-13	RB24085	51	1.13	8.82	9.95	4.23	35.1	GEL MARTIX
P4121-01	COMP-1	52	1.13	8.51	9.64	7.12	70.4	
P4121-02	COMP-2	53	1.00	1.00	2.00	2.00	100.0	debris
P4121-03	ELZ-24-00090	54	1.00	1.00	2.00	2.00	100.0	oil sample
P4122-01	FDH013Y-1-1	55	1.00	1.00	2.00	2.00	100.0	pilc
P4122-02	FDH013Y-1-2	56	1.00	1.00	2.00	2.00	100.0	pilc

PERCENT SOLID

Supervisor: sohil
Analyst: jignesh
Date: 9/20/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 09/19/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:22
Out Date: 09/20/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB132510

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
P4122-03	FDH013Y-2-1	57	1.00	1.00	2.00	2.00	100.0	pilc
P4122-04	FDH013Y-2-2	58	1.00	1.00	2.00	2.00	100.0	pilc
P4123-01	910-B	59	1.13	8.80	9.93	6.38	59.7	
P4123-02	613-D	60	1.00	1.00	2.00	2.00	100.0	debris
P4124-01	2049	61	1.00	1.00	2.00	2.00	100.0	wipe sample
P4124-02	2050	62	1.00	1.00	2.00	2.00	100.0	wipe sample
P4125-01	PL-01-09192024	63	1.15	8.68	9.83	9.53	96.5	
P4125-02	PL-01-09192024-E2	64	1.16	8.44	9.6	9.36	97.2	
P4126-01	NB-08-09192024	65	1.18	8.52	9.7	9.37	96.1	
P4126-02	NB-08-09192024-E2	66	1.11	8.85	9.96	9.27	92.2	

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

WORKLIST(Hardcopy Internal Chain)

VP 132510

WorkList Name : %1-091924 **WorkList ID :** 183634 **Department :** Wet-Chemistry **Date :** 09-19-2024 08:44:01

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4024-01	DDCD5	Solid	Percent Solids	Cool 4 deg C	USEP04	VS-1	09/09/2024	Chemtech -SO
P4024-02	DDCD5MS	Solid	Percent Solids	Cool 4 deg C	USEP04	VS-1	09/09/2024	Chemtech -SO
P4024-03	DDCD5MSD	Solid	Percent Solids	Cool 4 deg C	USEP04	VS-1	09/09/2024	Chemtech -SO
P4024-04	VHBLK001	Solid	Percent Solids	Cool 4 deg C	USEP04	VS-1	09/14/2024	Chemtech -SO
P4024-05	DDC36	Solid	Percent Solids	Cool 4 deg C	USEP04	VS-1	09/06/2024	Chemtech -SO
P4024-06	DDCL2	Solid	Percent Solids	Cool 4 deg C	USEP04	VS-1	09/10/2024	Chemtech -SO
P4103-01	WC-22A	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4103-04	WC-14-5-7.5A	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4103-07	WC-14-5-7.5B	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4103-10	WC-14-7.5-10A	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4103-13	WC-14-7.5-10B	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4103-16	WC-23	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-01	WC-14-5-7.5A-EPH-1	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-02	WC-14-5-7.5A-EPH-2	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-03	WC-14-5-7.5A-EPH-3	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-04	WC-14-5-7.5A-EPH-4	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-06	WC-14-5-7.5B-EPH-1	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-07	WC-14-5-7.5B-EPH-2	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-08	WC-14-5-7.5B-EPH-3	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-09	WC-14-5-7.5B-EPH-4	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-10	WC-14-5-7.5B-EPH-5	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO

Date/Time 09-19-24 15:30

Raw Sample Received by: TAT GeoC,

Raw Sample Relinquished by: T-C (Son)

Date/Time 09-19-24 17:25

Raw Sample Received by: T-C (Son)

Raw Sample Relinquished by: TAT GeoC,

WORKLIST(Hardcopy Internal Chain)

VB132510

WorkList Name : %1-091924 **WorkList ID :** 183634 **Department :** Wet-Chemistry **Date :** 09-19-2024 08:44:01

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4104-11	WC-14-7.5-10A-EPH-1	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-12	WC-14-7.5-10A-EPH-2	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-13	WC-14-7.5-10A-EPH-3	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-14	WC-14-7.5-10A-EPH-4	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-15	WC-14-7.5-10A-EPH-5	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-16	WC-14-7.5-10B-EPH-1	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-17	WC-14-7.5-10B-EPH-2	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-18	WC-14-7.5-10B-EPH-3	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-19	WC-14-7.5-10B-EPH-4	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-20	WC-14-7.5-10B-EPH-5	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-21	WC-22A-EPH-1	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-22	WC-22A-EPH-2	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-23	WC-22A-EPH-3	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-24	WC-22A-EPH-4	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-25	WC-22A-EPH-5	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-26	WC-23-EPH-1	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-27	WC-23-EPH-2	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-28	WC-23-EPH-3	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-29	WC-23-EPH-4	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4104-30	WC-23-EPH-5	Solid	Percent Solids	Cool 4 deg C	ENTA05	J11	09/17/2024	Chemtech -SO
P4117-01	MOO-SOIL-PILE	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	08/23/2024	Chemtech -SO

Date/Time 09-19-24 15:30

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Date/Time 09.19.24 17:25

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

WORKLIST(Hardcopy Internal Chain)

VB 132510

WorkList Name : %1-091924 **WorkList ID :** 183634 **Department :** Wet-Chemistry **Date :** 09-19-2024 08:44:01

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4119-01	TRANSFOMER-OIL	Solid	Percent Solids	Cool 4 deg C	PSEG03	J12	09/19/2024	Chemtech -SO
P4119-03	OILY-DEBRIS	Solid	Percent Solids	Cool 4 deg C	PSEG03	J12	09/19/2024	Chemtech -SO
P4120-01	T1	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4120-03	T2	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4120-05	SF-6-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4120-07	SF-6-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4120-09	COMP-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4120-11	COMP-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4120-13	RB24085	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4121-01	COMP-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4121-02	COMP-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4121-03	ELZ-24-00090	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4122-01	FDH013Y-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4122-02	FDH013Y-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4122-03	FDH013Y-2-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4122-04	FDH013Y-2-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	J13	09/19/2024	Chemtech -SO
P4123-01	910-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	J21	09/19/2024	Chemtech -SO
P4123-02	613-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	J21	09/19/2024	Chemtech -SO
P4124-01	2049	Solid	Percent Solids	Cool 4 deg C	PSEG03	J21	09/19/2024	Chemtech -SO
P4124-02	2050	Solid	Percent Solids	Cool 4 deg C	PSEG03	J21	09/19/2024	Chemtech -SO
P4125-01	PL-01-09192024	Solid	Percent Solids	Cool 4 deg C	PSEG05	J21	09/19/2024	Chemtech -SO

Date/Time 09-19-24 1530

Raw Sample Received by: SO WOC

Raw Sample Relinquished by: R.C Sm

Date/Time 09-19-24 1725

Raw Sample Received by: R.C Sm

Raw Sample Relinquished by: SO WOC

WORKLIST(Hardcopy Internal Chain)

NB 132510

WorkList Name : %1-091924 **WorkList ID :** 183634 **Department :** Wet-Chemistry **Date :** 09-19-2024 08:44:01

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4125-02	PL-01-09192024-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	J21	09/19/2024	Chemtech -SO
P4126-01	NB-08-09192024	Solid	Percent Solids	Cool 4 deg C	PSEG05	J21	09/19/2024	Chemtech -SO
P4126-02	NB-08-09192024-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	J21	09/19/2024	Chemtech -SO

Date/Time 09-19-24 15:30

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature]

Date/Time 09-19-24 17:25

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature]

SHIPPING DOCUMENTS

P4103

ENTACT

CHAIN OF CUSTODY RECORD

NO. 1 OF 5

COMPANY INFORMATION		PROJECT INFORMATION	
LOCATION	ENTACT LLC	PROJECT	North Point
ATTN	Wyatt Seel	BILLING INFORMATION	
ADDRESS	150 Bay Street, Suite 801	BILL TO	ENTACT LLC
	Jersey City, NJ	ADDRESS	999 Oakmont Plaza Drive Suite 300
			Westmont, IL 60559
PHONE	419-266-4671	PHONE	630-986-2900
FAX		FAX	PO# E9306

SAMPLE ID	SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	TCL + 20 SVOCs (8270)	TAL Metals + Boron & Tin (6010/7471)	Full TCLP + TCLP Cu, Ni & Zn (1311/8270/8081/8151/6010/7471)	RCRA Characteristics-I/C/R (1030/9045D/Ch 7 rev3)	PCBs (8082); Hex Chromium (7196)	Ammonia-Nitrogen (ASTM/SM4500H); COD (ASTM/5220D); Oil & Grease (ASTM/1664);	Total Solids (ASTM/SM2540G); Total Volatile Solids (160.4)	TCL+10 VOCs (8260); TCLP VOCs (1311/8260); TPH DRO & GRO (8015)	Tox (9020 or 9023)	COMMENTS
WC-22A	Waste characterization	9/17	11:40	Soil	C	8/4oz Jar	9	X	X	X	X	X	X	X	X	X	See Full List Attached
WC-14_5_7.5A	Waste characterization	9/17	11:50	Soil	C	8/4oz Jar	9	X	X	X	X	X	X	X	X	X	See Full List Attached
WC-14_5_7.5B	Waste characterization	9/17	13:30	Soil	C	8/4oz Jar	9	X	X	X	X	X	X	X	X	X	See Full List Attached
WC-14_7.5_10A	Waste characterization	9/17	12:35	Soil	C	8/4oz Jar	9	X	X	X	X	X	X	X	X	X	See Full List Attached
WC-14_7.5_10B	Waste characterization	9/17	14:20	Soil	C	8/4oz Jar	9	X	X	X	X	X	X	X	X	X	See Full List Attached
WC-23	Waste characterization	9/17	14:45	Soil	C	8/4oz Jar	9	X	X	X	X	X	X	X	X	X	See Full List Attached

SAMPLER	W. Seel	SHIPMENT	courier	AIRBILL	

REQUIRED TURNAROUND ☐ SAME DAY ☐ 24 HOURS ☐ 48 HOURS ☐ 72 HOURS ☒ 5 DAYS ☐ 10 DAYS ☐ ROUTINE ☐ OTHER: _____

1. RELINQUISHED BY	DATE	2. RELINQUISHED BY	DATE	3. RELINQUISHED BY	DATE
SIGNATURE:	9-18-24	SIGNATURE:		SIGNATURE:	
PRINTED NAME/COMPANY: Wyatt Seel	14:10	PRINTED NAME/COMPANY:		PRINTED NAME/COMPANY:	
1. RECEIVED BY	DATE	2. RECEIVED BY	DATE	3. RECEIVED BY	DATE
SIGNATURE:	9-18-24	SIGNATURE:		SIGNATURE:	
PRINTED NAME/COMPANY: Bonova Peña	14:10	PRINTED NAME/COMPANY:		PRINTED NAME/COMPANY:	

Parameter	Test Method
TCL + 10 VOCs	8270D
TCL + 20 SVOCs	8260B
TAL Metals (+Boron, Tin)	6010/7471
Hexavalent Chromium (Cr+6)	7196
Total Cyanide	9014
TCLP VOCs	1311/8260B
TCLP SVOCs	1311/8270D
TCLP Metals (+ Beryllium, Copper, Nickel, Zinc)	1311/6010/7471
TCLP Pesticides/Herbicides	1311/8080/8151
RCRA Characteristics (Ignitability, Corrosivity, Reactive Sulfide/Cyanide)	SW 846 1030 SW 846/9045D SW 846 7.3.3.2 Rev. 3
PCBs	8082A
TPH/DRO & GRO	8015D
TOX	9020 or 9023
Paint Filter	9095

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 (L-A-B)	L2219
Maine	2024021
Maryland	296
New Hampshire	255423
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 : P4103 ENTA05
Client Name : ENTACT
Client Contact : Chris Lawrence
Invoice Name : ENTACT
Invoice Contact : Chris Lawrence

Order Date : 9/18/2024 3:16:00 PM
North Point
Project Name : ~~CMC - CTV2 #E9322~~
Receive DateTime : 9/18/2024 2:10:00 PM
Purchase Order :

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

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4103-01	WC-22A	Solid	09/17/2024	11:40					
					VOC-TCLVOA-10		8260D		5 Bus. Days
P4103-07	WC-14-5-7.5B	Solid	09/17/2024	13:30					
					VOC-TCLVOA-10		8260D		5 Bus. Days
P4103-10	WC-14-7.5-10A	Solid	09/17/2024	12:35					
					VOC-TCLVOA-10		8260D		5 Bus. Days
P4103-13	WC-14-7.5-10B	Solid	09/17/2024	14:20					
					VOC-TCLVOA-10		8260D		5 Bus. Days
P4103-16	WC-23	Solid	09/17/2024	14:45					
p4103-04	WC-14-5-7.5A	solid	09/17/2024	11:50am	VOC-TCLVOA-10		8260D		5 Bus. Days
					VOC-TCLVOA-10		8260D		5 Bus. Days

Relinguished By :
Date / Time : 9-18-24 16:25

Received By : JC
Date / Time : 9/18/24 1625

Storage Area : VOA Refridgerator Room