EPA SAMPLE NO.

GCPK5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-01

% Solids: 97.4 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	7.7		01/23/2025	2302
7440-39-3	Barium	300		01/23/2025	2302
7440-43-9	Cadmium	0.82		01/23/2025	2302
7440-47-3	Chromium	18		01/23/2025	2302
7440-48-4	Cobalt	21		01/23/2025	2302
7439-92-1	Lead	74		01/23/2025	2302

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPK6

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-02

% Solids: 97.3 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	6.6		01/23/2025	2306
7440-39-3	Barium	190		01/23/2025	2306
7440-43-9	Cadmium	0.61		01/23/2025	2306
7440-47-3	Chromium	12		01/23/2025	2306
7440-48-4	Cobalt	12		01/23/2025	2306
7439-92-1	Lead	60		01/23/2025	2306

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPK7

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-03

% Solids: 97.5 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	6.6		01/23/2025	2310
7440-39-3	Barium	180		01/23/2025	2310
7440-43-9	Cadmium	0.36	J	01/23/2025	2310
7440-47-3	Chromium	14		01/23/2025	2310
7440-48-4	Cobalt	11		01/23/2025	2310
7439-92-1	Lead	41		01/23/2025	2310

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPK8

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-04

% Solids: 96.7 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	9.3		01/23/2025	2314
7440-39-3	Barium	98		01/23/2025	2314
7440-43-9	Cadmium	0.70		01/23/2025	2314
7440-47-3	Chromium	20		01/23/2025	2314
7440-48-4	Cobalt	11		01/23/2025	2314
7439-92-1	Lead	42		01/23/2025	2314

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPK9

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-05

% Solids: 97.7 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	9.3		01/23/2025	2318
7440-39-3	Barium	110		01/23/2025	2318
7440-43-9	Cadmium	0.53		01/23/2025	2318
7440-47-3	Chromium	23		01/23/2025	2318
7440-48-4	Cobalt	8.8		01/23/2025	2318
7439-92-1	Lead	54		01/23/2025	2318

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPL0

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-06

% Solids: 98 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	6.7		01/23/2025	2322
7440-39-3	Barium	110		01/23/2025	2322
7440-43-9	Cadmium	0.37	J	01/23/2025	2322
7440-47-3	Chromium	20		01/23/2025	2322
7440-48-4	Cobalt	7.1		01/23/2025	2322
7439-92-1	Lead	48		01/23/2025	2322

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPL1

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-07

% Solids: 98.5 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	11		01/23/2025	2326
7440-39-3	Barium	1100		01/23/2025	2326
7440-43-9	Cadmium	1.1		01/23/2025	2326
7440-47-3	Chromium	7.2		01/23/2025	2326
7440-48-4	Cobalt	6.0		01/23/2025	2326
7439-92-1	Lead	61		01/23/2025	2326

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPL2

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-08

% Solids: 94.9 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	6.7		01/23/2025	2330
7440-39-3	Barium	140		01/23/2025	2330
7440-43-9	Cadmium	0.34	J	01/23/2025	2330
7440-47-3	Chromium	15		01/23/2025	2330
7440-48-4	Cobalt	6.4		01/23/2025	2330
7439-92-1	Lead	41		01/23/2025	2330

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPL3

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-11

% Solids: 97.8 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	3.1		01/23/2025	2346
7440-39-3	Barium	120		01/23/2025	2346
7440-43-9	Cadmium	0.94		01/23/2025	2346
7440-47-3	Chromium	8.3		01/23/2025	2346
7440-48-4	Cobalt	6.9		01/23/2025	2346
7439-92-1	Lead	37		01/23/2025	2346

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPL4

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-12

% Solids: 98.3 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	10		01/23/2025	2350
7440-39-3	Barium	710		01/23/2025	2350
7440-43-9	Cadmium	1.4		01/23/2025	2350
7440-47-3	Chromium	27		01/23/2025	2350
7440-48-4	Cobalt	5.7		01/23/2025	2350
7439-92-1	Lead	210		01/23/2025	2350

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPL5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-13

% Solids: 97.7 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	11		01/24/2025	0003
7440-39-3	Barium	140		01/24/2025	0003
7440-43-9	Cadmium	0.59		01/24/2025	0003
7440-47-3	Chromium	33		01/24/2025	0003
7440-48-4	Cobalt	9.7		01/24/2025	0003
7439-92-1	Lead	69		01/24/2025	0003

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPL6

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-14

% Solids: 96.3 Date Received: 01/09/2025

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7440-38-2	Arsenic	5.4		01/24/2025	0007
7440-39-3	Barium	130		01/24/2025	0007
7440-43-9	Cadmium	0.37	J	01/24/2025	0007
7440-47-3	Chromium	15		01/24/2025	0007
7440-48-4	Cobalt	6.6		01/24/2025	0007
7439-92-1	Lead	40		01/24/2025	0007

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

GCPL7

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51921 MA No. : SDG No.: GCPK5

Matrix: SOIL Lab Sample ID: Q1043-15

% Solids: 100 Date Received: 01/09/2025

Analytical Method: ICP_AES

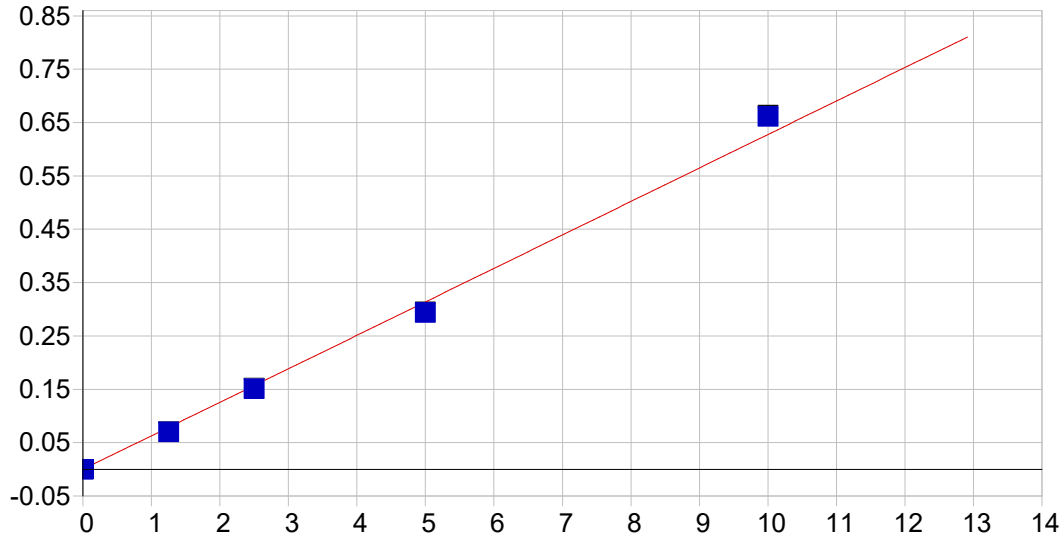
Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
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7440-39-3	Barium	270		01/24/2025	0011
7440-43-9	Cadmium	84		01/24/2025	0011
7440-47-3	Chromium	210		01/24/2025	0011
7440-48-4	Cobalt	140		01/24/2025	0011
7439-92-1	Lead	200		01/24/2025	0011

NOTE: Hardness (total) is reported in mg/L

Comments:

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



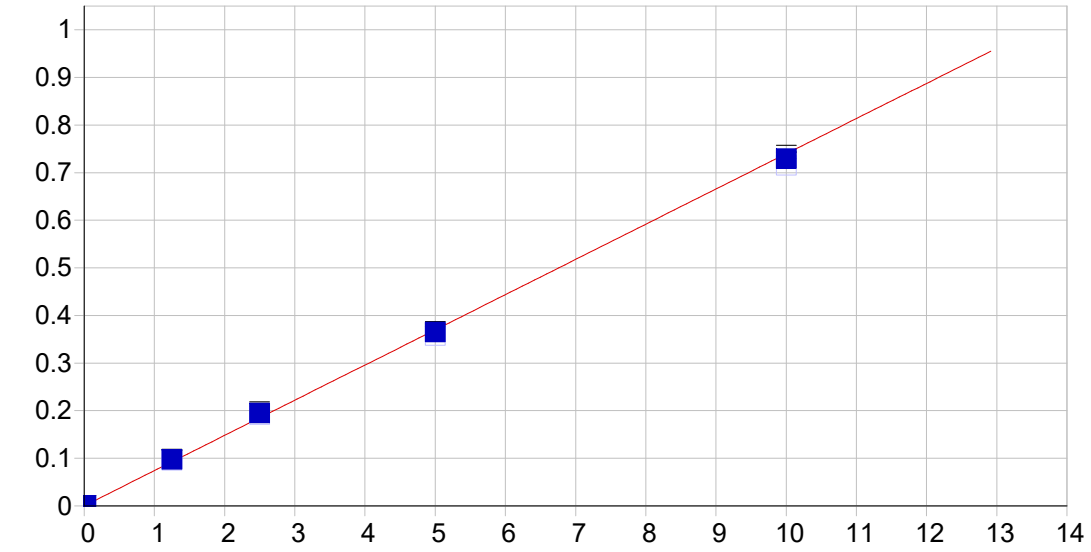
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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998200	Status:	OK.
Std Error of Est:	0.000063		
Predicted MDL:	0.002534		
Predicted MQL:	0.008448		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00004	.000	1
S1	.01000	.00752	-.002	-24.8	.00051	.000	1
S3	2.5000	2.4083	-.092	-3.67	.15091	.001	1
S4	5.0000	4.6837	-.316	-6.33	.29343	.001	1
S5	10.000	10.543	.543	5.43	.66060	.002	1
S2	1.2500	1.1176	-.132	-10.6	.07004	.000	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



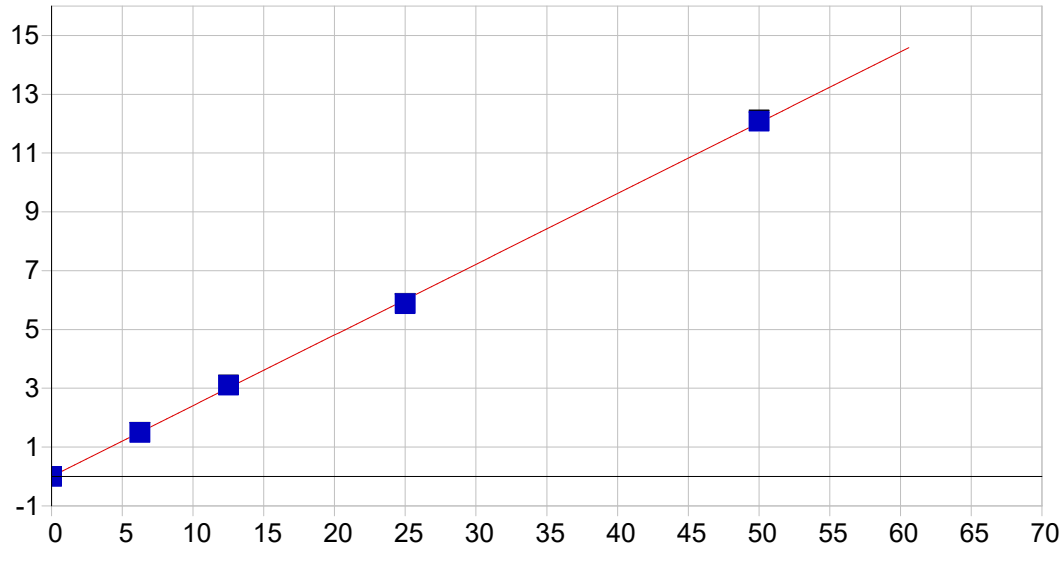
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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999609	Status:	OK.
Std Error of Est:	0.000054		
Predicted MDL:	0.001900		
Predicted MQL:	0.006333		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00018	.000	1
S1	.02500	.02712	.002	8.48	.00211	.000	1
S3	2.5000	2.6373	.137	5.49	.19163	.002	1
S4	5.0000	4.9300	-.070	-1.40	.35759	.002	1
S5	10.000	9.8638	-.136	-1.36	.71529	.007	1
S2	1.2500	1.3169	.067	5.35	.09578	.001	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



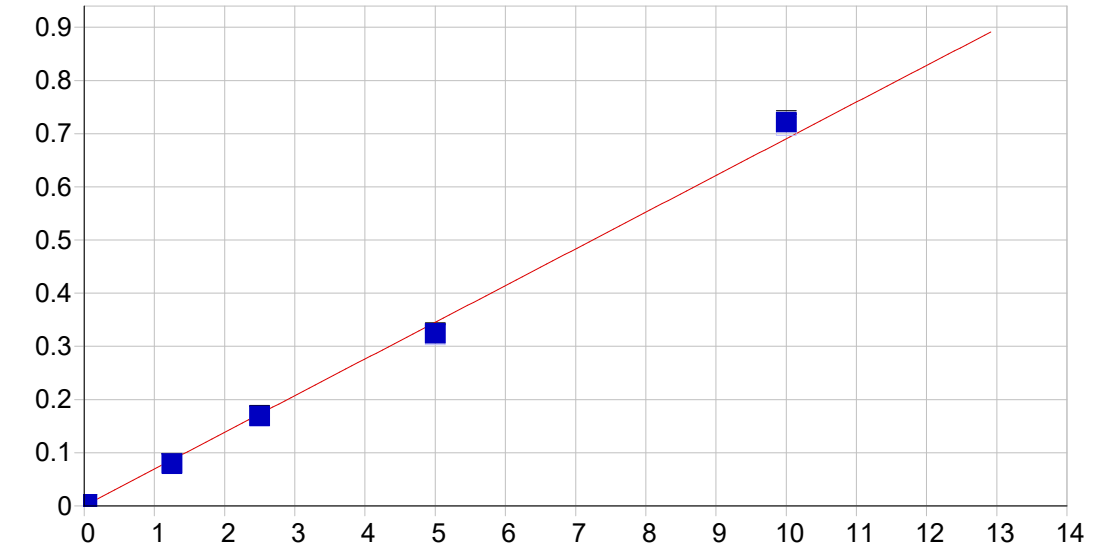
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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999853	Status:	OK.
Std Error of Est:	0.000155		
Predicted MDL:	0.001474		
Predicted MQL:	0.004913		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00008	.000	1
S1	.01000	.00844	-.002	-15.6	.00210	.000	1
S3	12.500	12.899	.399	3.19	3.1017	.003	1
S4	25.000	24.420	-.580	-2.32	5.8718	.010	1
S5	50.000	50.216	.216	.431	12.075	.041	1
S2	6.2500	6.2168	-.033	-.531	1.4949	.002	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



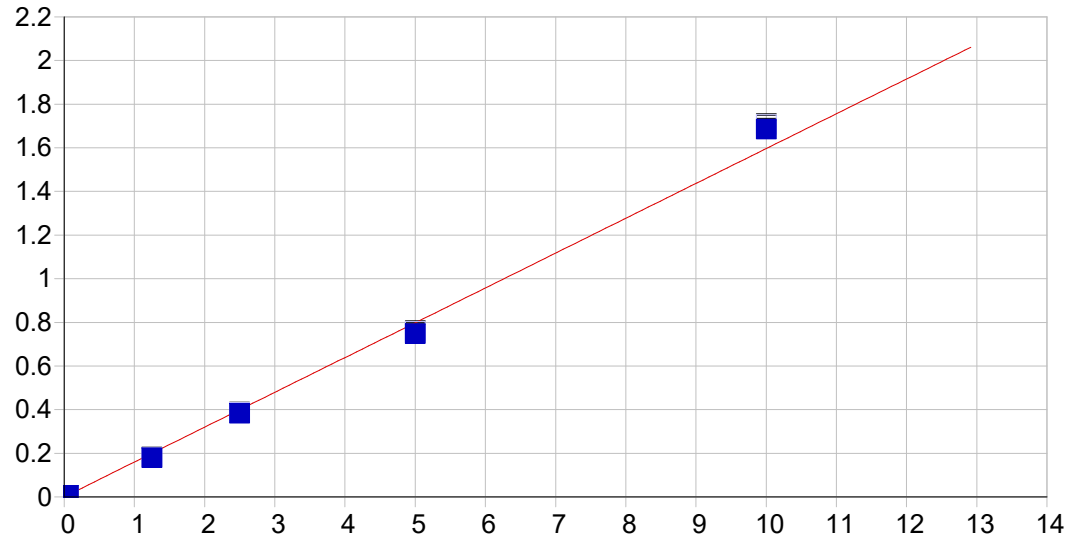
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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998715	Status:	OK.
Std Error of Est:	0.000109		
Predicted MDL:	0.002906		
Predicted MQL:	0.009686		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00031	.000	1
S1	.03500	.03435	-.001	-1.86	.00267	.000	1
S3	2.5000	2.4495	-.050	-2.02	.16774	.001	1
S4	5.0000	4.6993	-.301	-6.01	.32138	.001	1
S5	10.000	10.452	.452	4.52	.71512	.003	1
S2	1.2500	1.1502	-.100	-7.99	.07887	.000	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



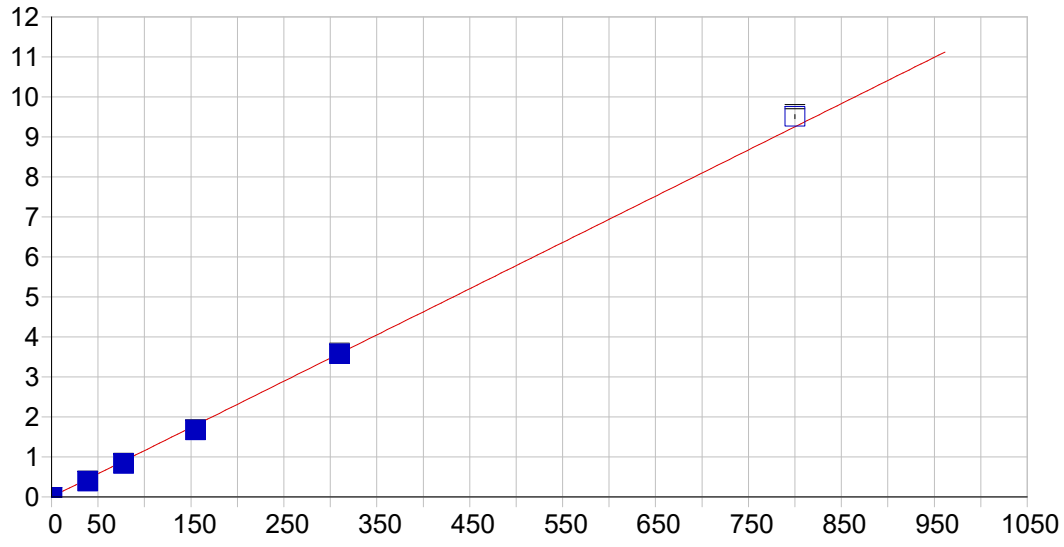
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A1 (Gain):	0.159593	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998207	Status:	OK.
Std Error of Est:	0.000399		
Predicted MDL:	0.001582		
Predicted MQL:	0.005275		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00031	.000	1
S1	.06000	.05332	-.007	-11.1	.00880	.000	1
S3	2.5000	2.3937	-.106	-4.25	.38764	.001	1
S4	5.0000	4.6845	-.316	-6.31	.75856	.003	1
S5	10.000	10.557	.557	5.57	1.7064	.004	1
S2	1.2500	1.1214	-.129	-10.3	.18193	.001	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



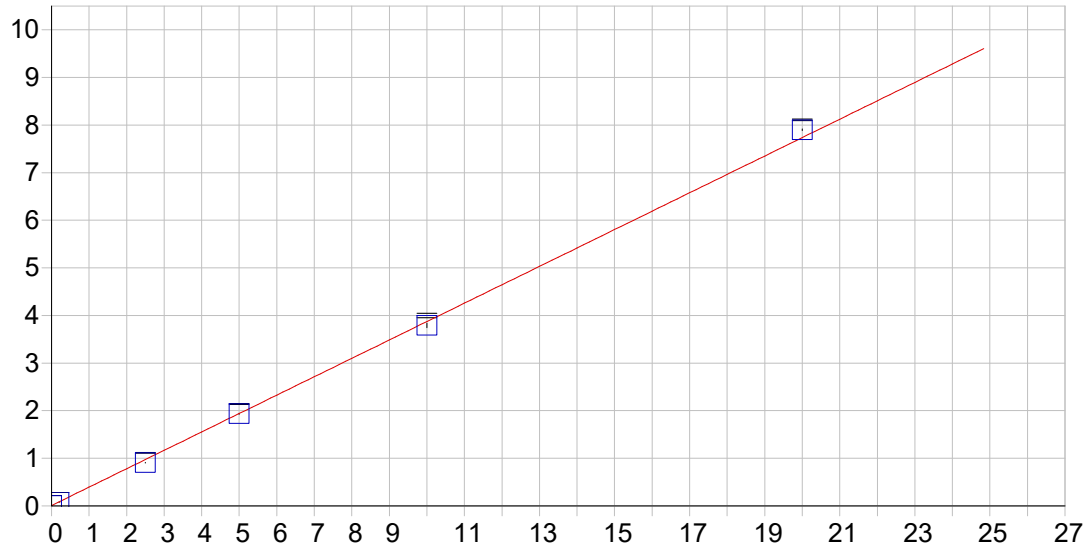
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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999138	Status:	OK.
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Predicted MDL:	0.009674		
Predicted MQL:	0.032246		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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S1	.20000	.16851	-.031	-15.7	.00208	.000	1
S3	77.500	72.148	-5.35	-6.91	.83568	.004	1
S4	155.00	144.48	-10.5	-6.79	1.6734	.006	1
S5	310.00	308.93	-1.07	-.345	3.5776	.018	1
S2	38.750	33.610	-5.14	-13.3	.38941	.002	1
S6	800.00	822.14	22.1	2.77	9.5094	.055	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



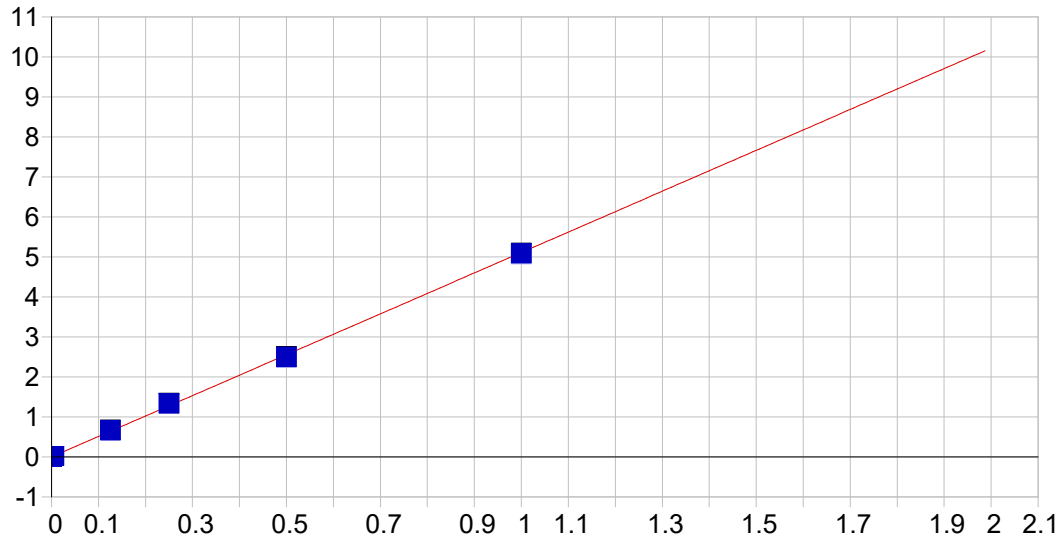
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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999646	Status:	OK.
Std Error of Est:	0.001092		
Predicted MDL:	0.000940		
Predicted MQL:	0.003132		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.00849	.000	1
S1	.20000	.18660	-.013	-6.70	.08059	.000	1
S3	5.0000	4.9800	-.020	-.399	1.9329	.008	1
S4	10.000	9.7858	-.214	-2.14	3.7900	.047	1
S5	20.000	20.422	.422	2.11	7.9002	.017	1
S2	2.5000	2.3255	-.175	-6.98	.90710	.004	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



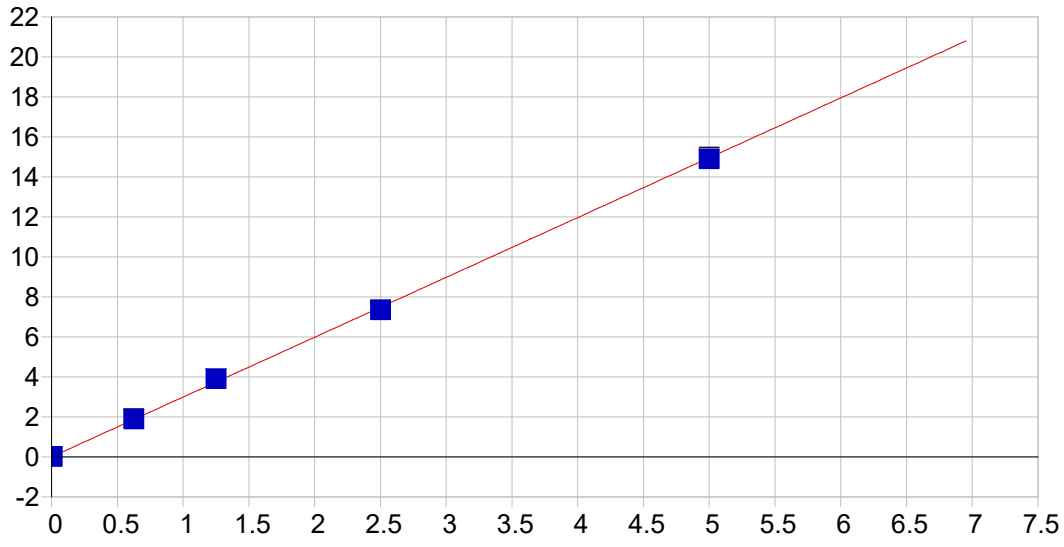
Be 234.861 {144}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000254	Re-Slope:	1.000000
A1 (Gain):	5.109673	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999706	Status:	OK.
Std Error of Est:	0.000463		
Predicted MDL:	0.000076		
Predicted MQL:	0.000255		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00026	.000	1
S1	.00500	.00537	.000	7.42	.02716	.000	1
S3	.25000	.26158	.012	4.63	1.3306	.009	1
S4	.50000	.48779	-.012	-2.44	2.4807	.018	1
S5	1.0000	.99514	-.005	-.486	5.0616	.010	1
S2	.12500	.13012	.005	4.10	.66175	.004	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



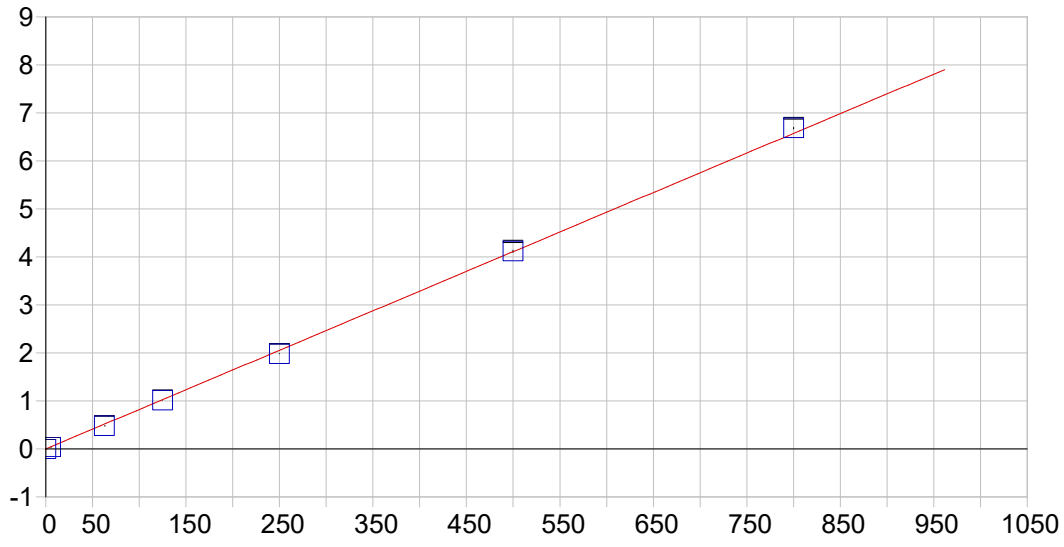
Cd 214.438 {457}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000063	Re-Slope:	1.000000
A1 (Gain):	2.991992	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999823	Status:	OK.
Std Error of Est:	0.000473		
Predicted MDL:	0.000076		
Predicted MQL:	0.000255		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00006	.000	1
S1	.00500	.00508	.000	1.67	.01528	.000	1
S3	1.2500	1.3052	.055	4.42	3.9126	.008	1
S4	2.5000	2.4568	-.043	-1.73	7.3656	.012	1
S5	5.0000	4.9810	-.019	-.380	14.933	.061	1
S2	.62500	.63191	.007	1.11	1.8944	.003	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



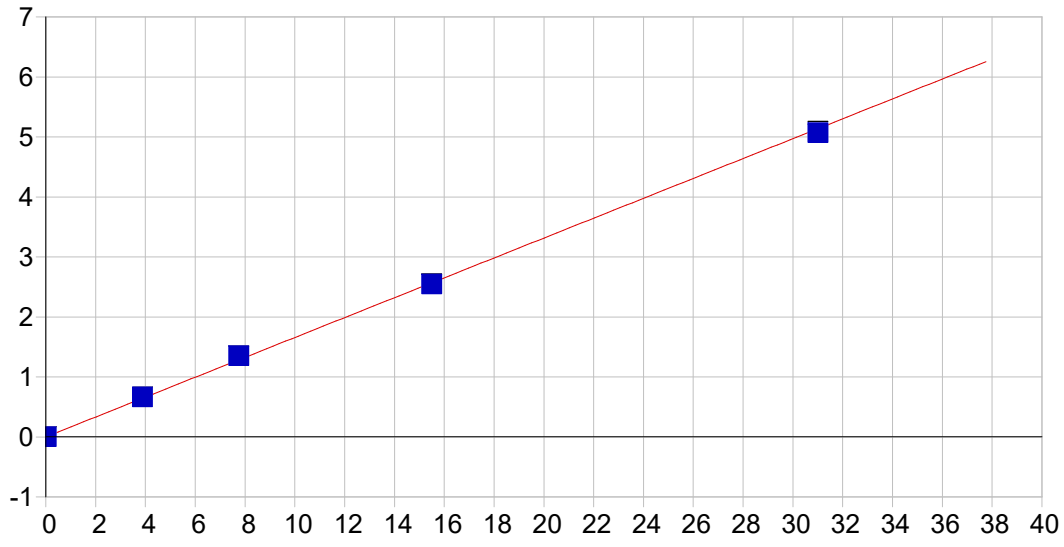
Ca 373.690 { 90}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000036	Re-Slope:	1.000000
A1 (Gain):	0.008217	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999761	Status:	OK.
Std Error of Est:	0.000627		
Predicted MDL:	0.010624		
Predicted MQL:	0.035412		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00068	.001	.000	.00004	.000	1
S2	62.500	58.361	-4.14	-6.62	.47962	.001	1
S3	125.00	123.66	-1.34	-1.07	1.0162	.005	1
S4	250.00	241.23	-8.77	-3.51	1.9823	.005	1
S5	500.00	501.03	1.03	.206	4.1172	.023	1
S1	5.0000	4.7891	-.211	-4.22	.03939	.000	1
S6	800.00	813.43	13.4	1.68	6.6843	.018	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



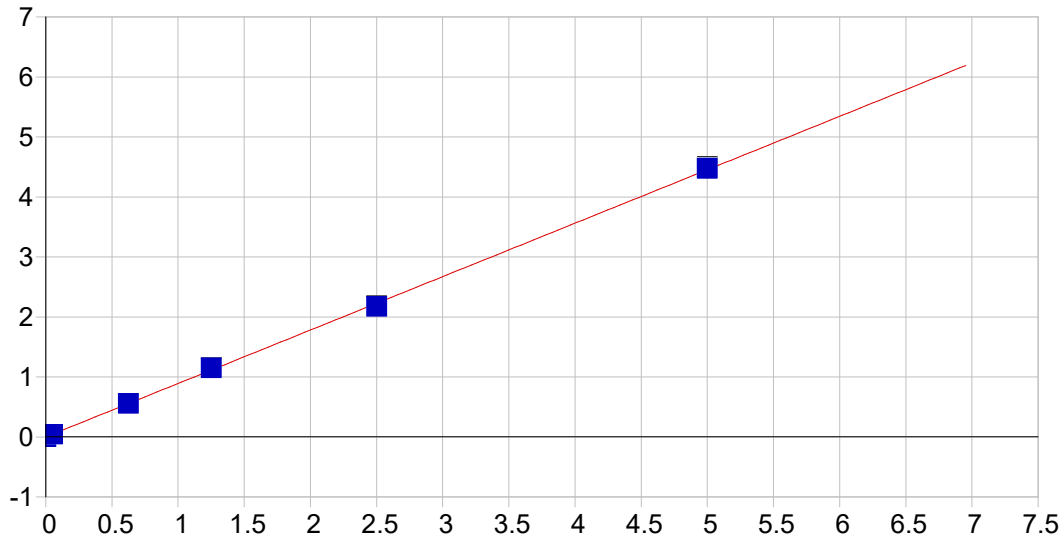
Cr 267.716 {126}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000055	Re-Slope:	1.000000
A1 (Gain):	0.165700	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999710	Status:	OK.
Std Error of Est:	0.000118		
Predicted MDL:	0.000444		
Predicted MQL:	0.001480		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00006	.000	1
S1	.01000	.01083	.001	8.29	.00174	.000	1
S3	7.7500	8.1546	.405	5.22	1.3515	.003	1
S4	15.500	15.367	-.133	-.856	2.5470	.007	1
S5	31.000	30.579	-.421	-1.36	5.0681	.026	1
S2	3.8750	4.0235	.148	3.83	.66679	.000	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



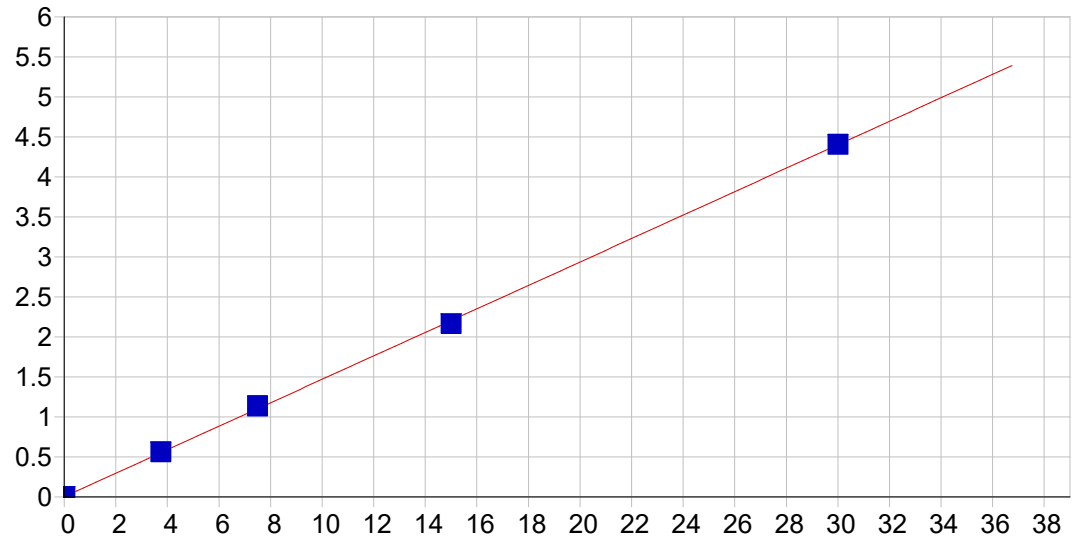
Co 228.616 {448}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000031	Re-Slope:	1.000000
A1 (Gain):	0.890435	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999853	Status:	OK.
Std Error of Est:	0.000407		
Predicted MDL:	0.000276		
Predicted MQL:	0.000921		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00003	.000	1
S1	.05000	.04941	-.001	-1.18	.04414	.000	1
S3	1.2500	1.2885	.039	3.08	1.1515	.002	1
S4	2.5000	2.4392	-.061	-2.43	2.1804	.003	1
S5	5.0000	5.0242	.024	.484	4.4906	.016	1
S2	.62500	.62370	-.001	-.208	.55745	.001	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



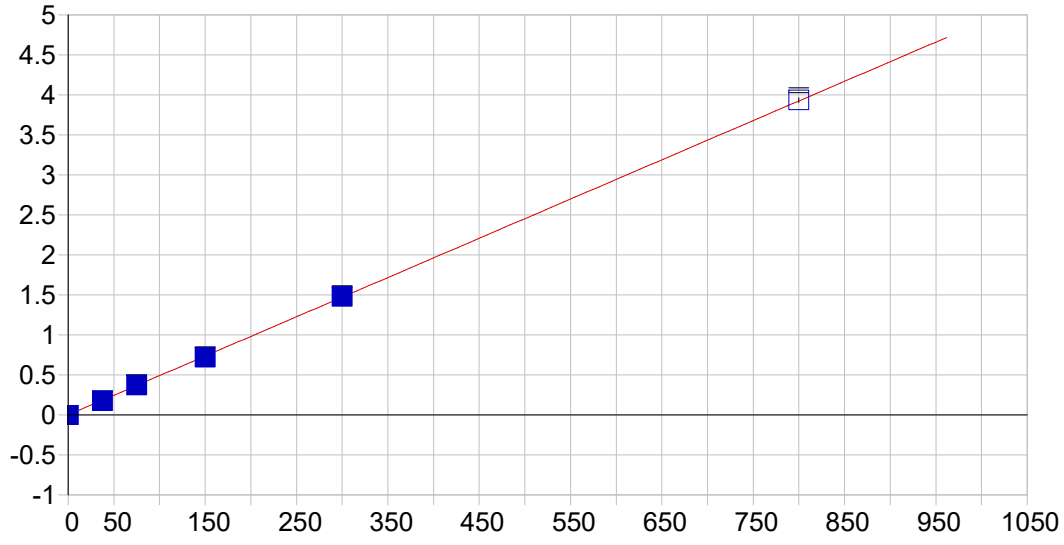
Cu 324.754 {104}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003630	Re-Slope:	1.000000
A1 (Gain):	0.146628	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999901	Status:	OK.
Std Error of Est:	0.000095		
Predicted MDL:	0.002872		
Predicted MQL:	0.009575		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00363	.000	1
S1	.02500	.02951	.005	18.0	.00796	.000	1
S3	7.5000	7.6976	.198	2.63	1.1322	.006	1
S4	15.000	14.738	-.262	-1.75	2.1644	.005	1
S5	30.000	30.016	.016	.053	4.4044	.003	1
S2	3.7500	3.7943	.044	1.18	.55992	.002	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



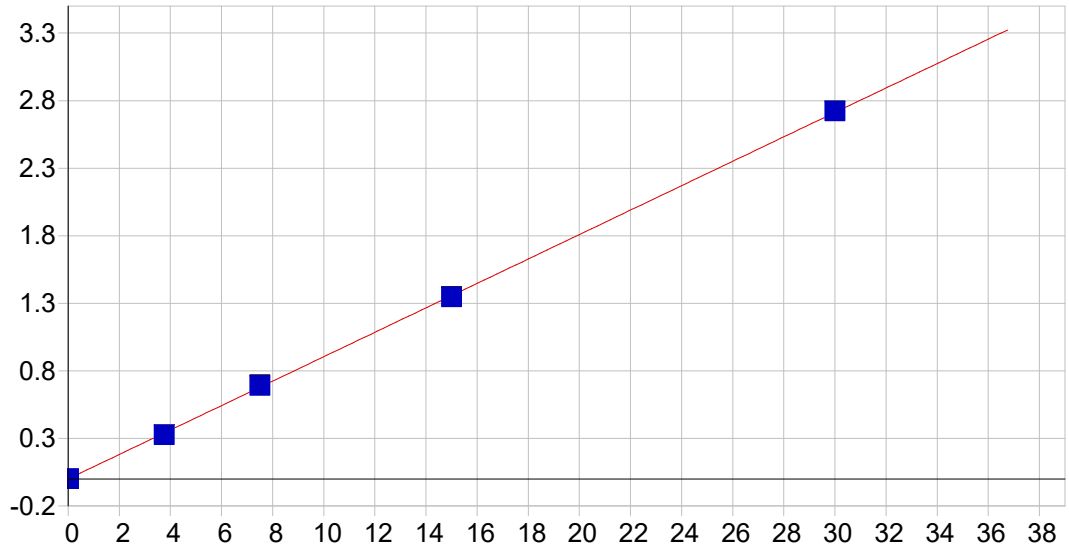
Fe 259.837 {130}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.004906	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.007324		
Predicted MQL:	0.024413		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00001	.000	1
S1	.10000	.09545	-.005	-4.55	.00047	.000	1
S3	75.000	75.911	.911	1.22	.37205	.002	1
S4	150.00	146.89	-3.11	-2.07	.71990	.002	1
S5	300.00	301.58	1.58	.525	1.4780	.007	1
S2	37.500	36.067	-1.43	-3.82	.17676	.001	1
S6	800.00	802.06	2.06	.257	3.9348	.030	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



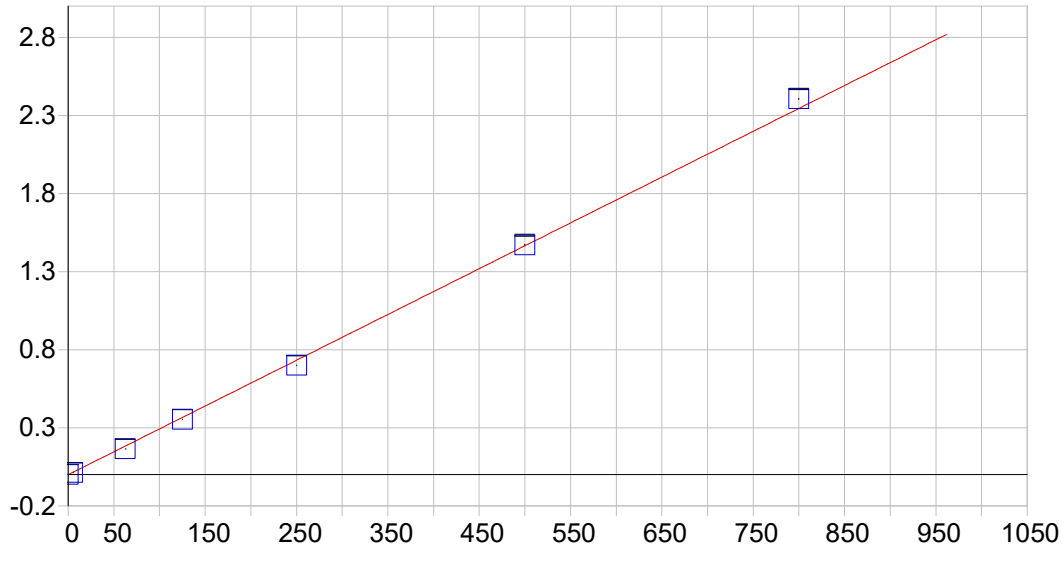
Mn 257.610 {131}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000019	Re-Slope:	1.000000
A1 (Gain):	0.090428	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999918	Status:	OK.
Std Error of Est:	0.000041		
Predicted MDL:	0.000386		
Predicted MQL:	0.001286		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00002	.000	1
S1	.01500	.01516	.000	1.04	.00135	.000	1
S3	7.5000	7.6504	.150	2.00	.69132	.003	1
S4	15.000	14.884	-.116	-.771	1.3450	.004	1
S5	30.000	30.101	.101	.338	2.7201	.002	1
S2	3.7500	3.6139	-.136	-3.63	.32655	.001	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



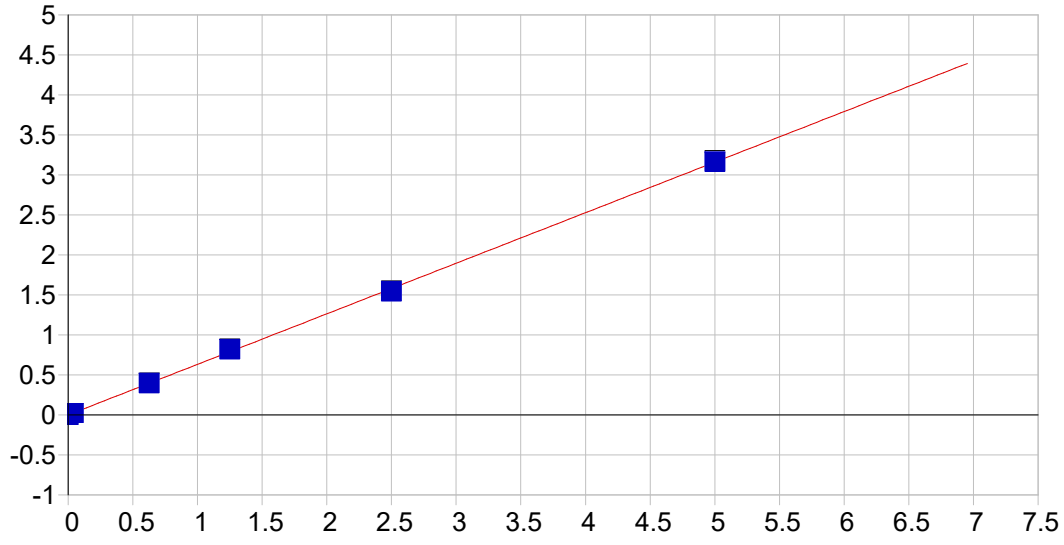
Mg 279.079 {121}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000076	Re-Slope:	1.000000
A1 (Gain):	0.002931	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999467	Status:	OK.
Std Error of Est:	0.000334		
Predicted MDL:	0.016041		
Predicted MQL:	0.053471		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00132	.001	.000	-.00007	.000	1
S2	62.500	56.415	-6.09	-9.74	.16528	.000	1
S3	125.00	120.76	-4.24	-3.39	.35388	.002	1
S4	250.00	238.75	-11.3	-4.50	.69970	.002	1
S5	500.00	501.33	1.33	.266	1.4693	.006	1
S1	5.0000	4.4133	-.587	-11.7	.01286	.000	1
S6	800.00	820.84	20.8	2.60	2.4058	.004	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



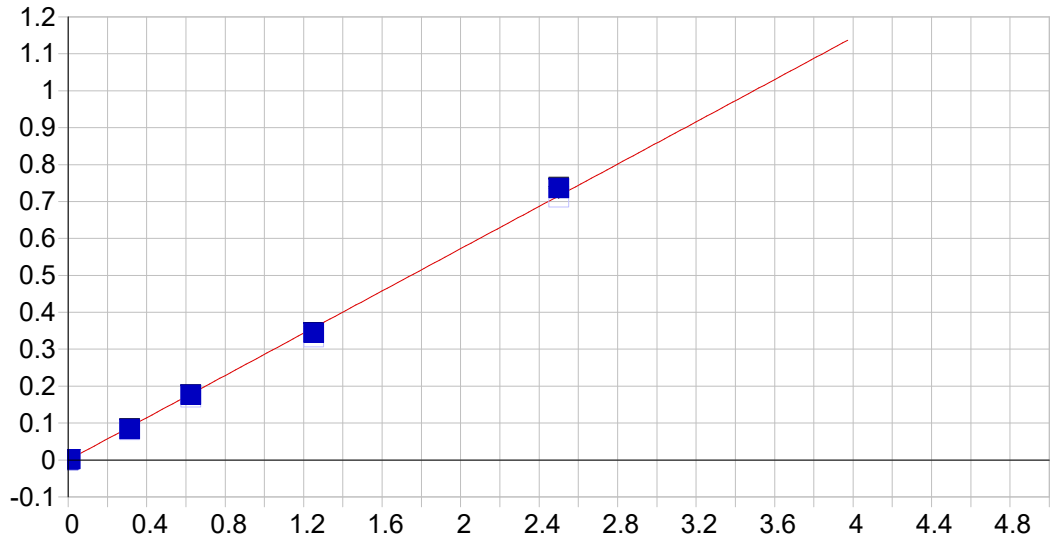
Ni 231.604 {446}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000285	Re-Slope:	1.000000
A1 (Gain):	0.631952	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999833	Status:	OK.
Std Error of Est:	0.000275		
Predicted MDL:	0.000435		
Predicted MQL:	0.001451		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00029	.000	1
S1	.04000	.04039	.000	.963	.02527	.000	1
S3	1.2500	1.2974	.047	3.79	.82147	.002	1
S4	2.5000	2.4427	-.057	-2.29	1.5471	.003	1
S5	5.0000	5.0044	.004	.088	3.1697	.011	1
S2	.62500	.63005	.005	.808	.39880	.001	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



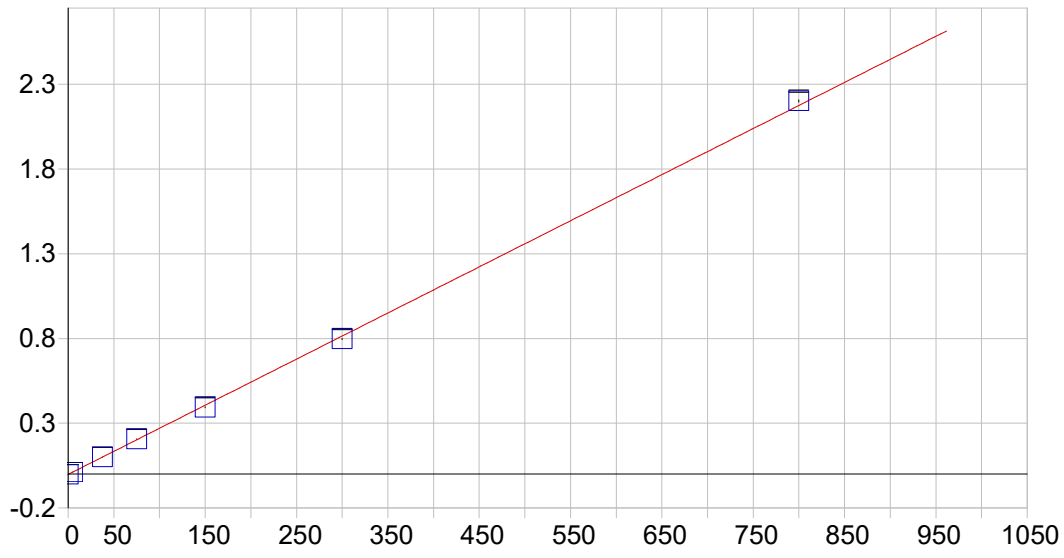
Ag 328.068 {103}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000141	Re-Slope:	1.000000
A1 (Gain):	0.286214	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999419	Status:	OK.
Std Error of Est:	0.000079		
Predicted MDL:	0.000416		
Predicted MQL:	0.001387		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00014	.000	1
S1	.01000	.00913	-.001	-8.69	.00245	.000	1
S3	.62500	.61562	-.009	-1.50	.16975	.000	1
S4	1.2500	1.2051	-.045	-3.59	.33218	.001	1
S5	2.5000	2.5736	.074	2.94	.71124	.003	1
S2	.31250	.29405	-.018	-5.91	.08087	.000	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



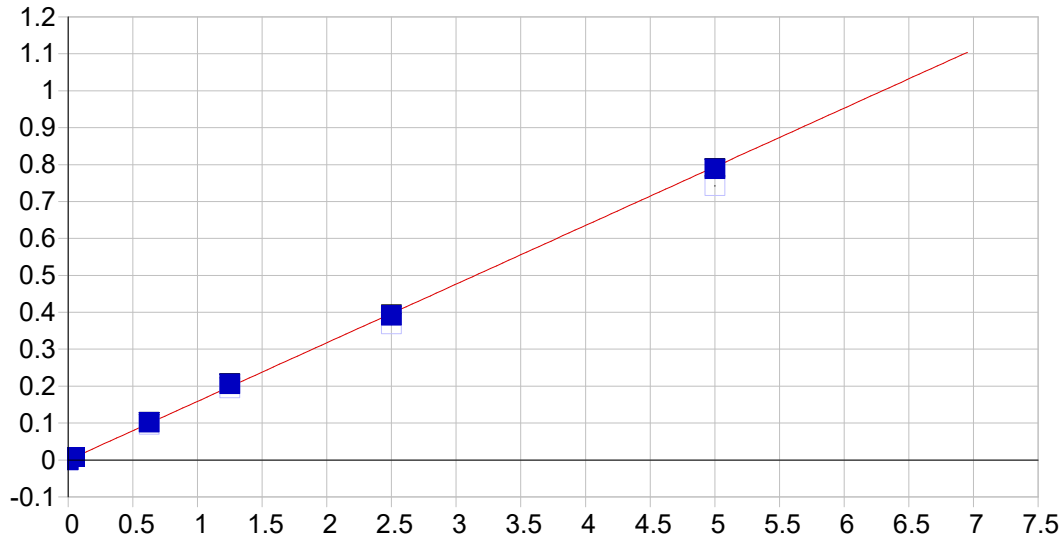
Na 818.326 { 41}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002130	Re-Slope:	1.000000
A1 (Gain):	0.002722	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999846	Status:	OK.
Std Error of Est:	0.000148		
Predicted MDL:	0.460167		
Predicted MQL:	1.533890		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00031	.000	.000	-.00213	.001	1
S2	37.500	37.429	-.071	-.188	.09974	.001	1
S3	75.000	76.428	1.43	1.90	.20589	.002	1
S4	150.00	145.40	-4.60	-3.07	.39361	.003	1
S5	300.00	293.77	-6.23	-2.08	.79742	.004	1
S1	5.0000	4.8056	-.194	-3.89	.01095	.001	1
S6	800.00	809.67	9.67	1.21	2.2016	.006	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



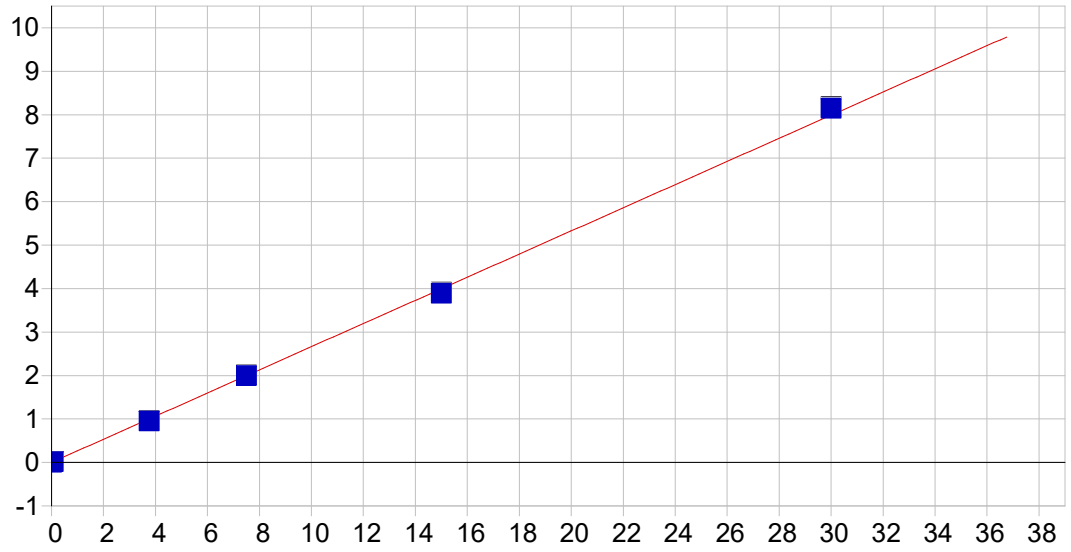
V 292.402 {115}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000111	Re-Slope:	1.000000
A1 (Gain):	0.158822	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999802	Status:	OK.
Std Error of Est:	0.000079		
Predicted MDL:	0.002269		
Predicted MQL:	0.007564		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00011	.000	1
S1	.05000	.05357	.004	7.14	.00838	.000	1
S3	1.2500	1.2984	.048	3.87	.19449	.001	1
S4	2.5000	2.4644	-.036	-1.42	.36808	.002	1
S5	5.0000	4.9665	-.033	-.669	.74224	.001	1
S2	.62500	.64184	.017	2.69	.09602	.000	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



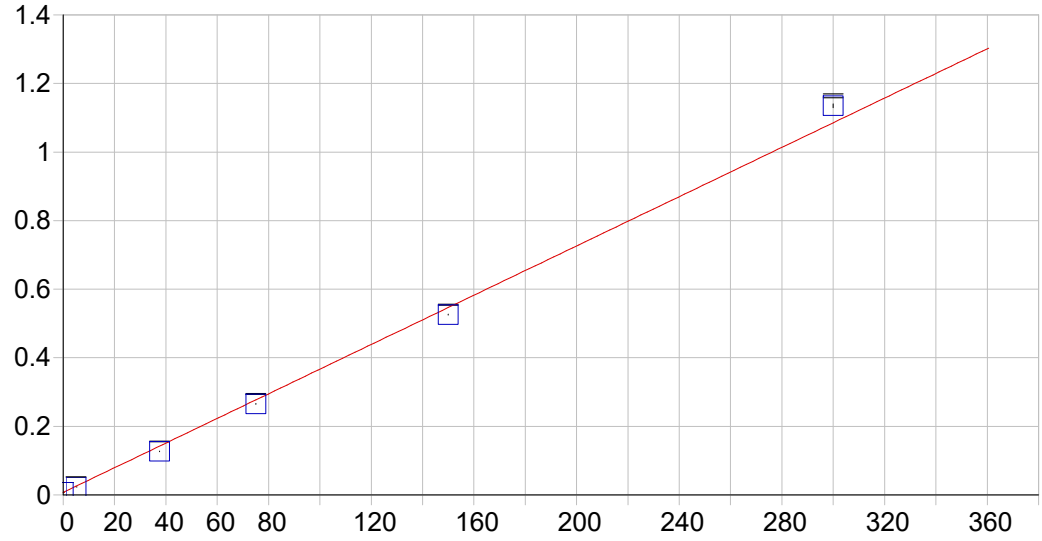
Zn 213.856 {158}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000500	Re-Slope:	1.000000
A1 (Gain):	0.266318	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999722	Status:	OK.
Std Error of Est:	0.000449		
Predicted MDL:	0.001855		
Predicted MQL:	0.006183		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00050	.001	1
S1	.06000	.05689	-.003	-5.19	.01574	.000	1
S3	7.5000	7.5002	.000	.003	2.0055	.009	1
S4	15.000	14.611	-.389	-2.59	3.9068	.012	1
S5	30.000	30.585	.585	1.95	8.1758	.014	1
S2	3.7500	3.5571	-.193	-5.14	.95157	.001	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



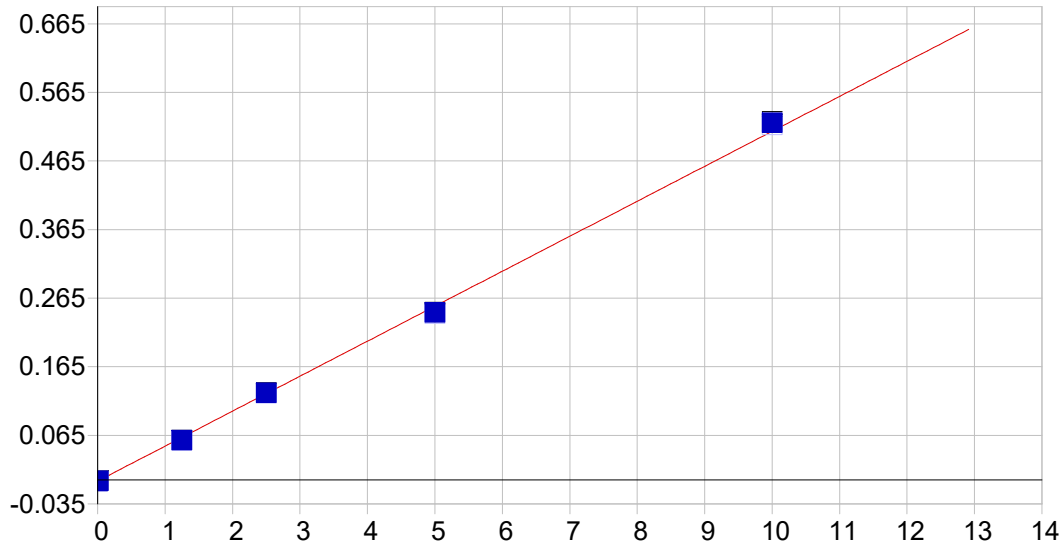
K 769.896 { 44}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.007441	Re-Slope:	1.000000
A1 (Gain):	0.003594	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998668	Status:	OK.
Std Error of Est:	0.000383		
Predicted MDL:	0.058514		
Predicted MQL:	0.195047		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00125	.001	.000	.00745	.000	1
S2	37.500	33.282	-4.22	-11.2	.12705	.001	1
S3	75.000	71.799	-3.20	-4.27	.26547	.001	1
S4	150.00	144.21	-5.79	-3.86	.52568	.001	1
S5	300.00	313.72	13.7	4.57	1.1349	.006	1
S1	5.0000	4.4899	-.510	-10.2	.02358	.000	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



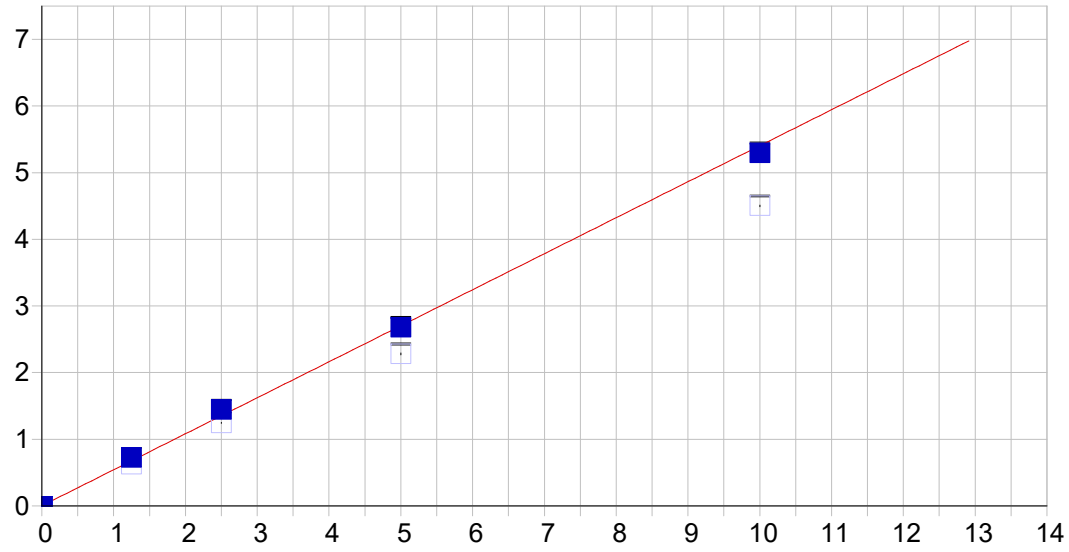
P 177.495 {490}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001771	Re-Slope:	1.000000
A1 (Gain):	0.050998	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999497	Status:	OK.
Std Error of Est:	0.000027		
Predicted MDL:	0.002271		
Predicted MQL:	0.007571		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00177	.000	1
S1	.01000	.01038	.000	3.76	-.00124	.000	1
S3	2.5000	2.5199	.020	.795	.12583	.000	1
S4	5.0000	4.8171	-.183	-3.66	.24207	.001	1
S5	10.000	10.247	.247	2.47	.51715	.002	1
S2	1.2500	1.1658	-.084	-6.73	.05723	.000	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



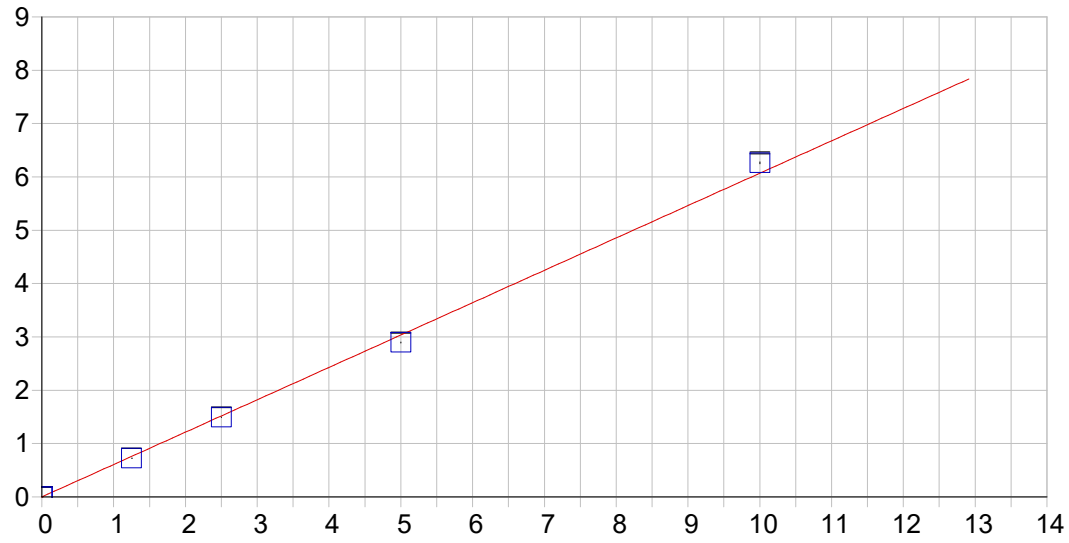
B 249.678 {135}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001774	Re-Slope:	1.000000
A1 (Gain):	0.540286	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998872	Status:	OK.
Std Error of Est:	0.000367		
Predicted MDL:	0.000770		
Predicted MQL:	0.002568		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00178	.000	1
S1	.01000	.00069	-.009	-93.1	.00187	.000	1
S3	2.5000	2.6699	.170	6.80	1.2456	.007	1
S4	5.0000	4.9530	-.047	-.941	2.2804	.015	1
S5	10.000	9.7997	-.200	-2.00	4.5017	.013	1
S2	1.2500	1.3378	.088	7.02	.62522	.002	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



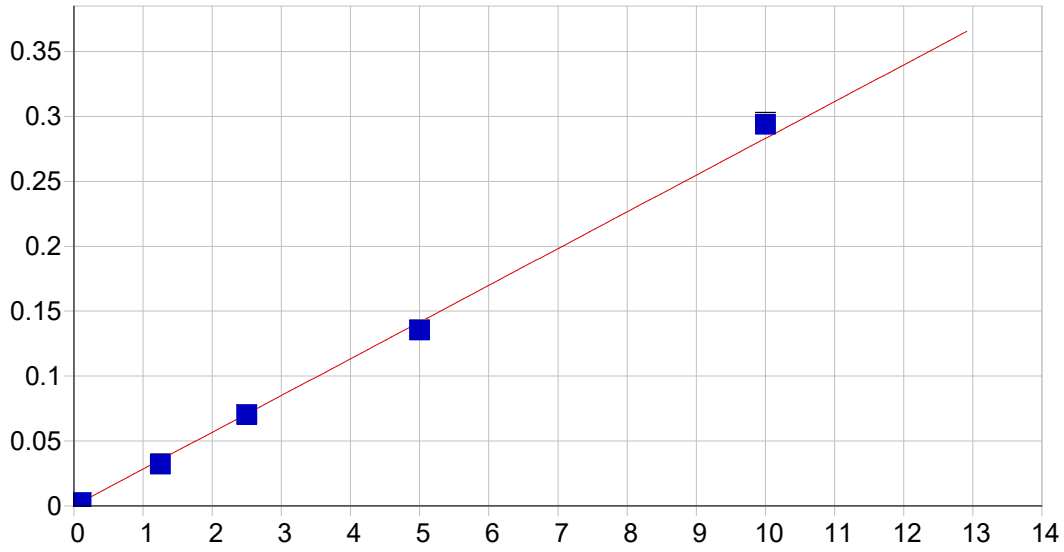
Mo 202.030 {467}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000387	Re-Slope:	1.000000
A1 (Gain):	0.606904	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999380	Status:	OK.
Std Error of Est:	0.000359		
Predicted MDL:	0.000353		
Predicted MQL:	0.001175		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00039	.000	1
S1	.01000	.00965	-.000	-3.45	.00625	.000	1
S3	2.5000	2.4635	-.037	-1.46	1.4955	.005	1
S4	5.0000	4.7721	-.228	-4.56	2.8966	.009	1
S5	10.000	10.318	.318	3.18	6.2623	.019	1
S2	1.2500	1.1969	-.053	-4.25	.72679	.002	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



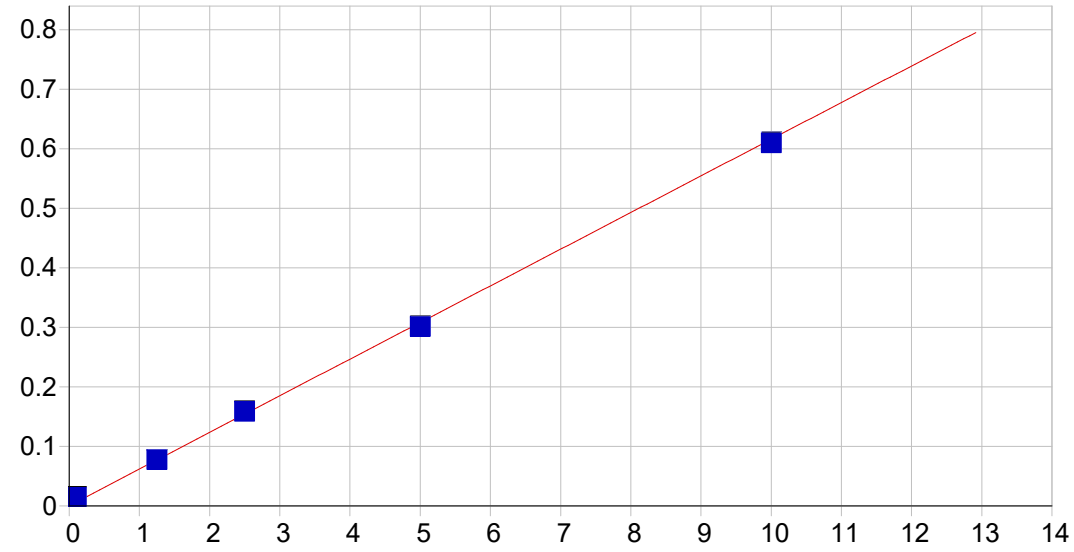
S 182.034 {485}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000144	Re-Slope:	1.000000
A1 (Gain):	0.028291	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998999	Status:	OK.
Std Error of Est:	0.000067		
Predicted MDL:	0.004053		
Predicted MQL:	0.013509		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.00014	.000	1
S1	.10000	.08562	-.014	-14.4	.00257	.000	1
S3	2.5000	2.4741	-.026	-1.04	.07023	.000	1
S4	5.0000	4.7796	-.220	-4.41	.13554	.000	1
S5	10.000	10.380	.380	3.80	.29416	.001	1
S2	1.2500	1.1307	-.119	-9.54	.03218	.000	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



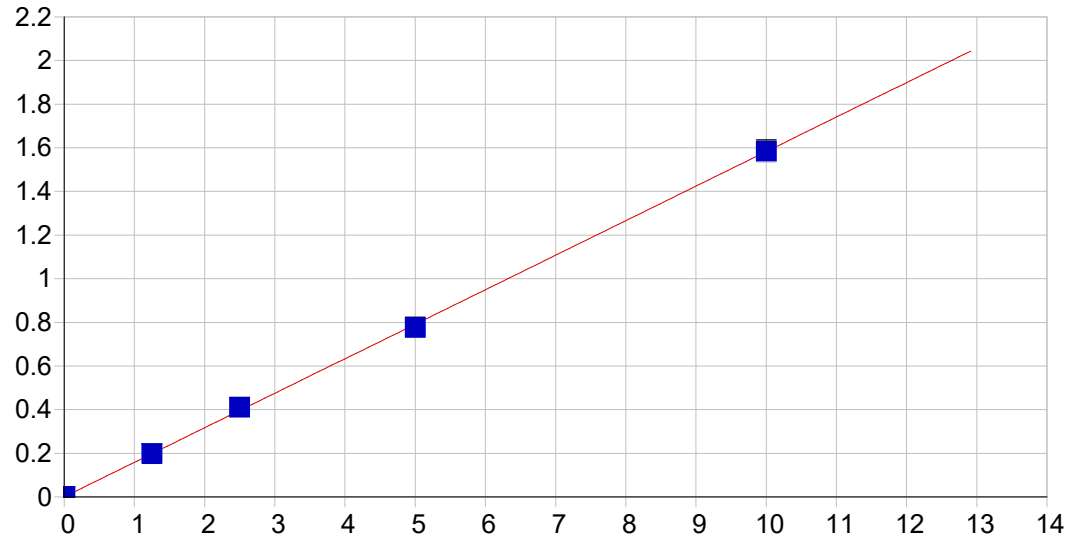
Si 251.611 {134}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000361	Re-Slope:	1.000000
A1 (Gain):	0.061582	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.994754	Status:	OK.
Std Error of Est:	0.000338		
Predicted MDL:	0.003649		
Predicted MQL:	0.012164		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00014	-.000	.000	.00035	.000	1
S1	.10000	.23947	.139	139.	.01511	.000	1
S3	2.5000	2.5721	.072	2.89	.15922	.001	1
S4	5.0000	4.8845	-.116	-2.31	.30208	.001	1
S5	10.000	9.8989	-.101	-1.01	.61181	.001	1
S2	1.2500	1.2553	.005	.428	.07790	.000	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



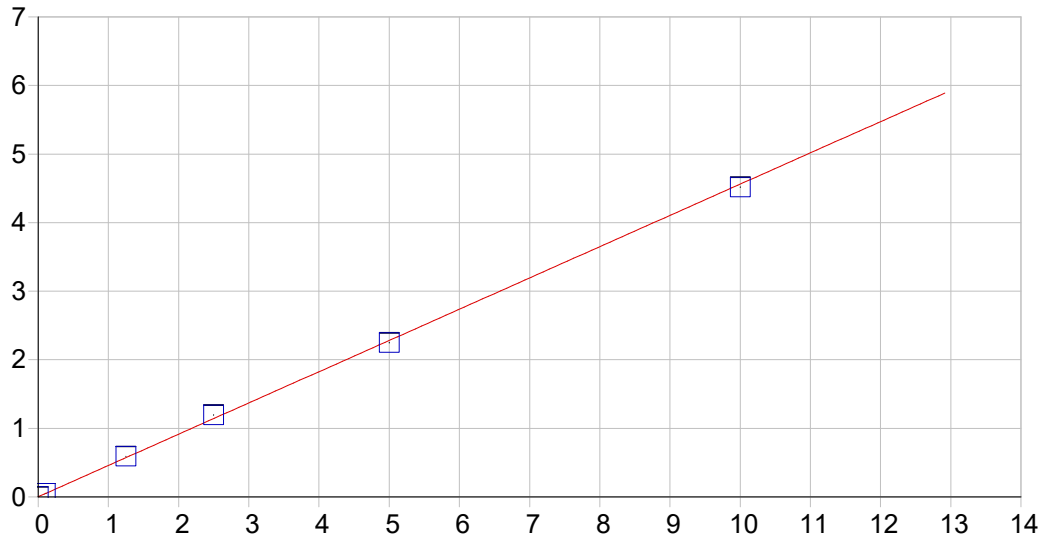
Sn 189.989 {478}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000232	Re-Slope:	1.000000
A1 (Gain):	0.158233	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999856	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.000834		
Predicted MQL:	0.002779		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00023	.000	1
S1	.00700	.00670	-.000	-4.27	.00124	.000	1
S3	2.5000	2.5930	.093	3.72	.40931	.001	1
S4	5.0000	4.9035	-.097	-1.93	.77368	.002	1
S5	10.000	10.007	.007	.073	1.5788	.007	1
S2	1.2500	1.2465	-.004	-.283	.19685	.000	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



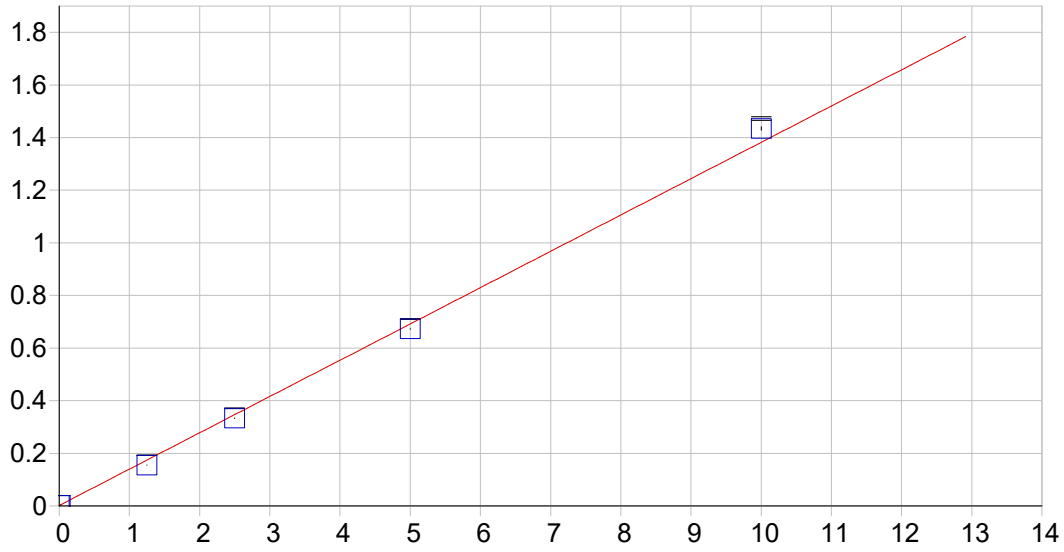
Ti 336.121 {100}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002578	Re-Slope:	1.000000
A1 (Gain):	0.455833	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999771	Status:	OK.
Std Error of Est:	0.000518		
Predicted MDL:	0.001060		
Predicted MQL:	0.003535		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00257	.001	1
S1	.10000	.10543	.005	5.43	.05064	.000	1
S3	2.5000	2.6140	.114	4.56	1.1941	.005	1
S4	5.0000	4.9316	-.068	-1.37	2.2506	.005	1
S5	10.000	9.9078	-.092	-.922	4.5189	.004	1
S2	1.2500	1.2911	.041	3.29	.59110	.001	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



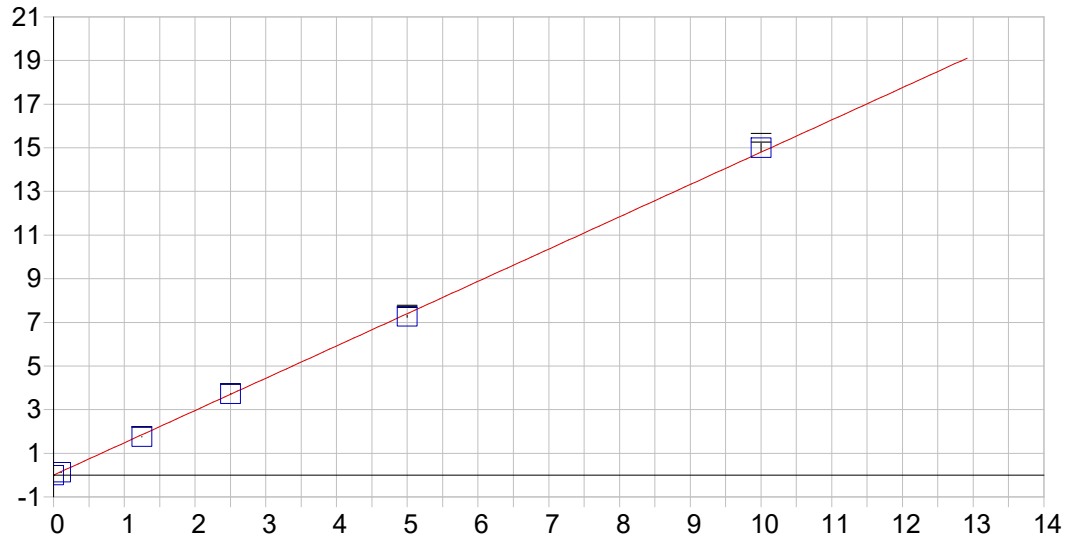
Li 670.784 { 50}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001631	Re-Slope:	1.000000
A1 (Gain):	0.138026	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998984	Status:	OK.
Std Error of Est:	0.000128		
Predicted MDL:	0.001528		
Predicted MQL:	0.005095		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00163	.000	1
S5	10.000	10.381	.381	3.81	1.4344	.007	1
S4	5.0000	4.8610	-.139	-2.78	.67257	.001	1
S3	2.5000	2.4000	-.100	-4.00	.33290	.001	1
S1	.01500	.01300	-.002	-13.4	.00342	.000	1
S2	1.2500	1.1104	-.140	-11.2	.15490	.001	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



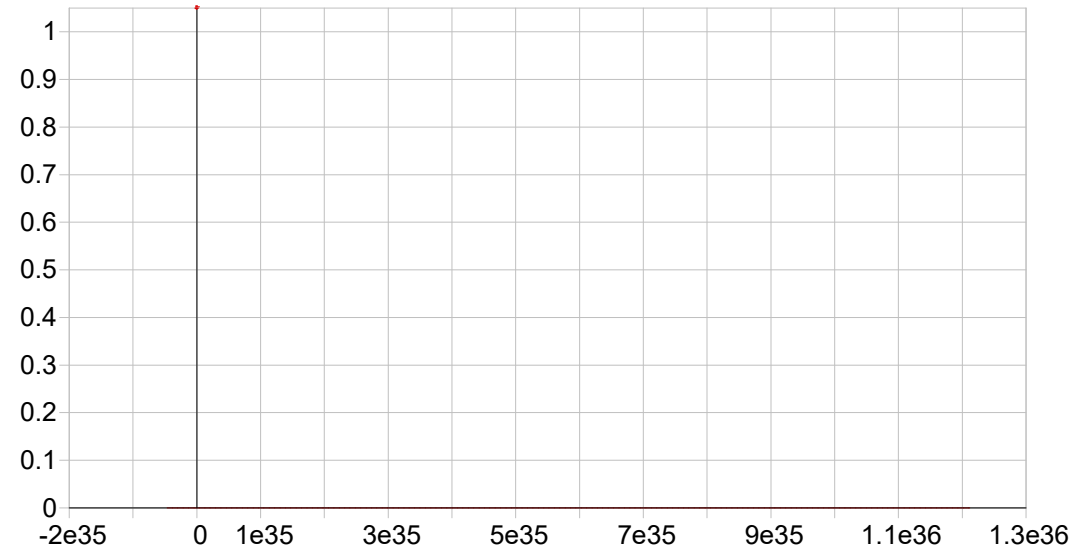
Sr 407.771 { 83}

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000011	Re-Slope:	1.000000
A1 (Gain):	1.479803	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999772	Status:	OK.
Std Error of Est:	0.001678		
Predicted MDL:	0.000076		
Predicted MQL:	0.000254		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00004	.000	1
S1	.10000	.08629	-.014	-13.7	.12771	.001	1
S3	2.5000	2.5194	.019	.775	3.7282	.016	1
S4	5.0000	4.9170	-.083	-1.66	7.2762	.049	1
S5	10.000	10.141	.141	1.41	15.006	.199	1
S2	1.2500	1.1868	-.063	-5.05	1.7563	.009	1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

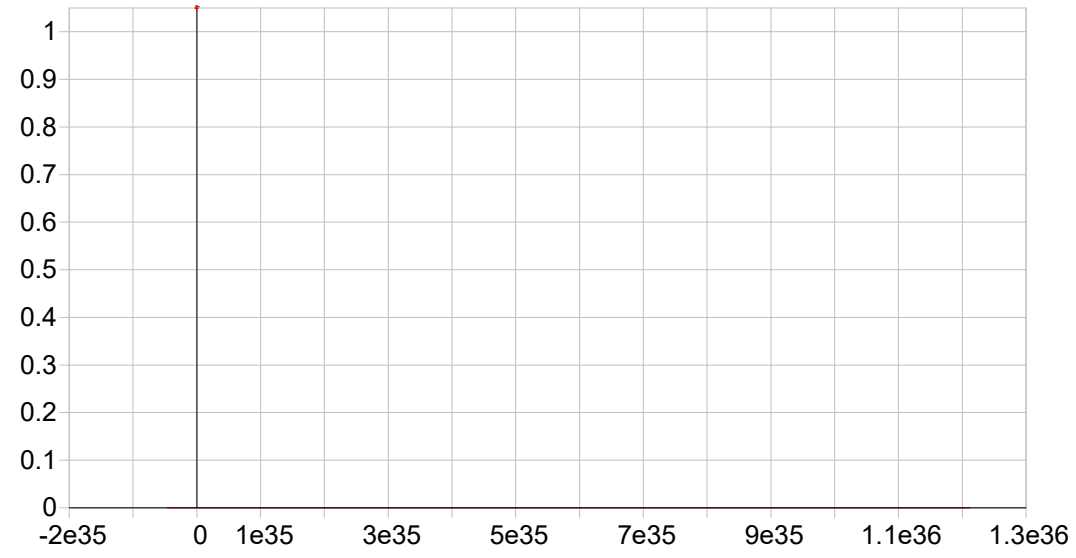


Y 224.306 {450}*

Date of Fit:	1/23/2025 17:27:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 360.073 { 94}*

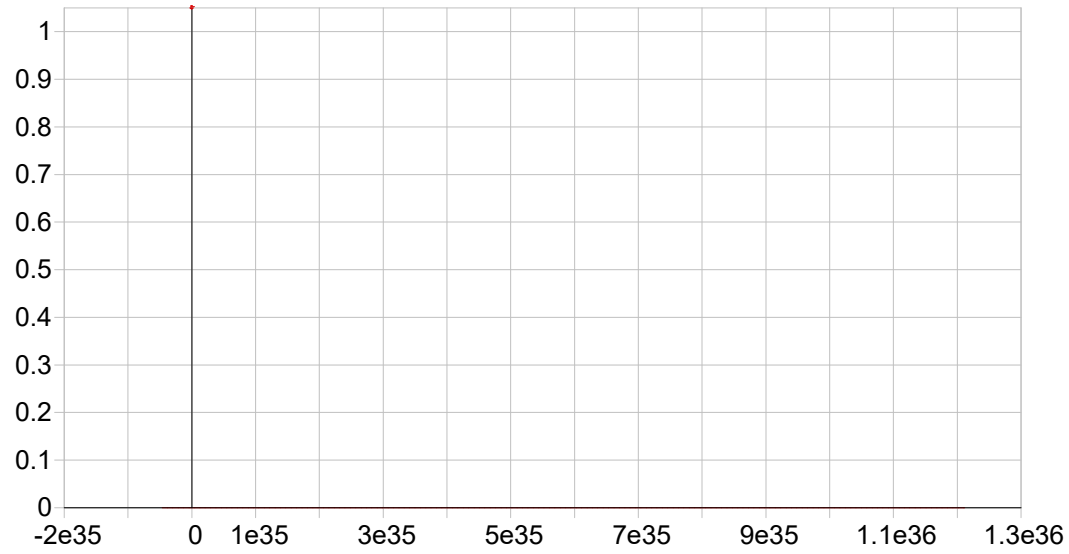
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.000000		Status:	Warning	Zero Gain	
Std Error of Est:	0.000000					
Predicted MDL:	n/a					
Predicted MQL:	n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

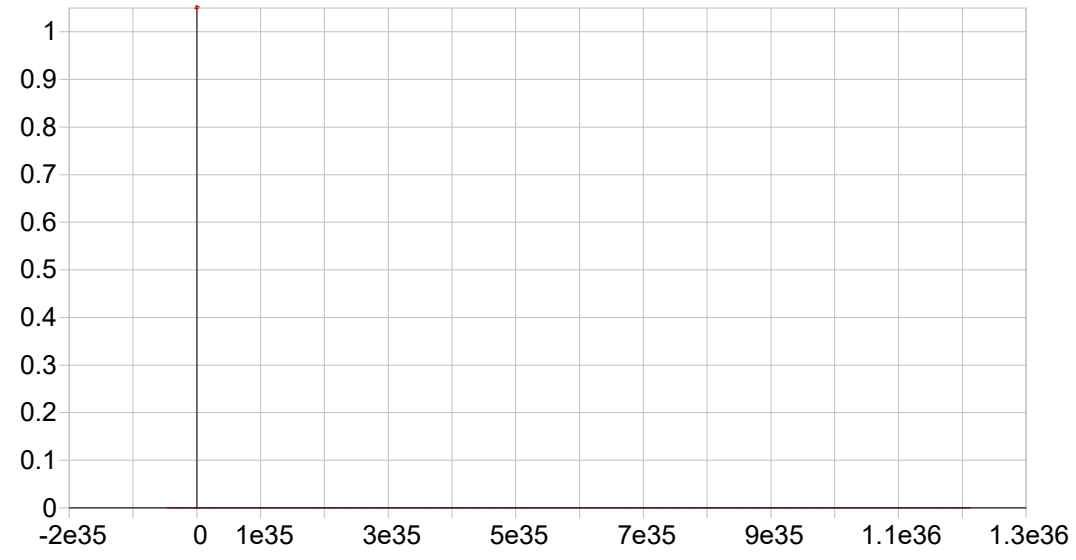


Y 371.030 { 91}*

Date of Fit:	<not fit>		Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):		0.000000		Re-Slope:	1.000000	
A1 (Gain):		0.000000		Y-int:	0.000000	
A2 (Curvature):		0.000000				
n (Exponent):		1.000000				
Correlation:		0.000000		Status:	Warning	Zero Gain
Std Error of Est:		0.000000				
Predicted MDL:		n/a				
Predicted MQL:		n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

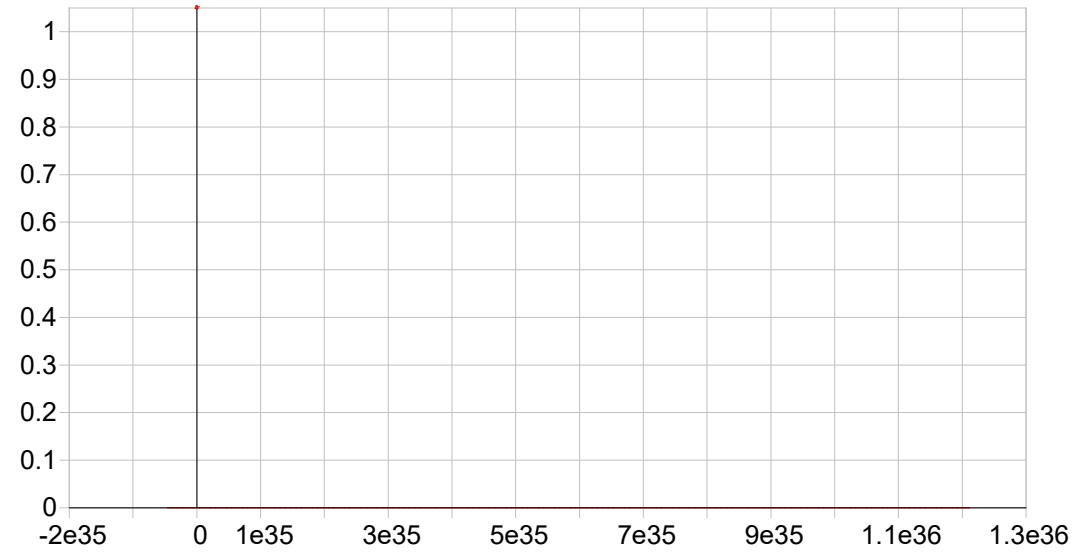
Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4



Y 224.306 {150}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



In 230.606 {446}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

A2 (Curvature):		0.000000					
n (Exponent):		1.000000					
Correlation:		0.000000		Status:	Warning	Zero Gain	
Std Error of Est:		0.000000					
Predicted MDL:		n/a					
Predicted MQL:		n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S0 Acquired: 1/23/2025 11:45:02 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00004**	**.00018**	**.00008**	**.00031**	**.00031**	**.00013**	**.00849**	**-.00026**
Stddev	.00006	.00004	.00040	.00009	.00014	.00000	.00036	.00025
%RSD	159.01	19.370	476.19	29.003	44.868	1.6720	4.2967	96.300
#1	.00005	.00016	.00024	.00024	.00028	.00012	.00820	.00003
#2	.00009	.00022	-.00037	.00027	.00019	.00013	.00837	-.00042
#3	-.00003	.00017	.00038	.00041	.00046	.00013	.00890	-.00038

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00006**	**.00004**	**-.00006**	**-.00003**	**.00363**	**.00001**	**-.00002**	**-.00007**
Stddev	.00035	.00006	.00007	.00009	.00014	.00001	.00003	.00001
%RSD	565.27	134.57	121.95	299.16	3.7820	100.16	159.00	19.730
#1	-.00032	.00008	-.00002	-.00007	.00369	.00001	.00001	-.00006
#2	.00014	-.00002	-.00001	.00007	.00373	.00003	-.00004	-.00008
#3	.00037	.00006	-.00013	-.00010	.00347	.00000	-.00003	-.00008

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00029**	**-.00014**	**-.00213**	**-.00011**	**.00050**	**.00745**	**-.00177**	**.00178**
Stddev	.00009	.00006	.00074	.00022	.00057	.00019	.00005	.00041
%RSD	31.680	39.639	34.573	192.84	113.13	2.5417	2.6092	22.959
#1	-.00019	-.00008	-.00181	.00001	-.00008	.00758	-.00172	.00182
#2	-.00031	-.00016	-.00297	.00001	.00054	.00753	-.00179	.00217
#3	-.00036	-.00018	-.00160	-.00036	.00105	.00723	-.00180	.00135

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00039**	**.00014**	**.00035**	**.00023**	**.00257**	**.00163**	**.00004**
Stddev	.00016	.00003	.00010	.00006	.00055	.00005	.00015
%RSD	40.233	22.736	28.521	25.520	21.472	3.0950	402.16
#1	.00044	.00014	.00025	.00030	.00321	.00163	.00017
#2	.00051	.00018	.00045	.00020	.00228	.00158	-.00012
#3	.00021	.00011	.00036	.00020	.00223	.00168	.00006

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S0 Acquired: 1/23/2025 11:45:02 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3577.3	73221.	9778.9	2600.7	4441.0
Stddev	7.6	92.	59.0	9.0	12.6
%RSD	.21185	.12587	.60286	.34417	.28368
#1	3569.2	73327.	9716.7	2610.1	4426.5
#2	3584.2	73166.	9786.3	2599.6	4449.2
#3	3578.5	73169.	9833.9	2592.3	4447.4

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S1 Acquired: 1/23/2025 11:49:18 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00051**	**.00211**	**.00210**	**.00267**	**.00880**	**.00208**	**.08059**	**.02716**
Stddev	.00009	.00009	.00028	.00011	.00026	.00007	.00047	.00038
%RSD	18.251	4.4452	13.178	4.0857	2.9945	3.3760	.58058	1.4018
#1	.00041	.00212	.00221	.00280	.00880	.00201	.08039	.02702
#2	.00052	.00202	.00178	.00261	.00853	.00207	.08025	.02759
#3	.00060	.00220	.00230	.00260	.00906	.00215	.08112	.02687

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01528**	**.03939**	**.00174**	**.04414**	**.00796**	**.00047**	**.00135**	**.01286**
Stddev	.00025	.00005	.00001	.00017	.00040	.00004	.00002	.00004
%RSD	1.6356	.11807	.69916	.39450	4.9844	8.8501	1.1772	.31762
#1	.01524	.03941	.00173	.04401	.00841	.00048	.00137	.01291
#2	.01505	.03934	.00174	.04433	.00778	.00043	.00134	.01284
#3	.01555	.03943	.00175	.04407	.00768	.00051	.00134	.01284

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02527**	**.00245**	**.01095**	**.00838**	**.01574**	**.02358**	**-.00124**	**.00187**
Stddev	.00012	.00005	.00088	.00006	.00004	.00006	.00011	.00021
%RSD	.46720	2.1993	8.0029	.74075	.28475	.27468	8.8067	11.059
#1	.02539	.00239	.01083	.00831	.01574	.02359	-.00113	.00171
#2	.02515	.00247	.01188	.00842	.01579	.02351	-.00134	.00211
#3	.02526	.00249	.01014	.00841	.01570	.02363	-.00127	.00180

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00625**	**.00257**	**.01511**	**.00124**	**.05064**	**.00342**	**.12771**
Stddev	.00015	.00006	.00027	.00008	.00041	.00017	.00070
%RSD	2.4304	2.3759	1.7598	6.5570	.81812	4.9631	.54520
#1	.00641	.00263	.01531	.00130	.05066	.00358	.12732
#2	.00611	.00255	.01481	.00128	.05104	.00324	.12729
#3	.00622	.00251	.01522	.00115	.05021	.00346	.12851

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S1 Acquired: 1/23/2025 11:49:18 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3574.6	72310.	9768.3	2581.9	4393.5
Stddev	3.4	247.	45.9	6.1	6.2
%RSD	.09629	.34095	.46992	.23585	.14010
#1	3570.7	72584.	9776.0	2577.8	4387.0
#2	3576.3	72106.	9719.1	2588.9	4399.3
#3	3576.9	72241.	9809.9	2579.0	4394.0

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S2 Acquired: 1/23/2025 11:53:33 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.07004**	**.09578**	**1.4949**	**.07887**	**.18193**	**.38941**	**.90710**	**.66175**
Stddev	.00009	.00060	.0024	.00039	.00053	.00182	.00434	.00394
%RSD	.12540	.62249	.15941	.49524	.29319	.46729	.47855	.59560
#1	.07013	.09620	1.4924	.07845	.18132	.38829	.90699	.66441
#2	.07003	.09604	1.4952	.07922	.18218	.38842	.90282	.66362
#3	.06996	.09510	1.4972	.07895	.18230	.39151	.91150	.65722

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.8944**	**.47962**	**.66679**	**.55745**	**.55992**	**.17676**	**.32655**	**.16528**
Stddev	.0029	.00109	.00036	.00130	.00239	.00072	.00139	.00036
%RSD	.15310	.22812	.05367	.23405	.42664	.40973	.42644	.21808
#1	1.8921	.47862	.66638	.55630	.56268	.17609	.32677	.16489
#2	1.8977	.47943	.66700	.55718	.55849	.17666	.32506	.16560
#3	1.8936	.48079	.66700	.55887	.55859	.17753	.32782	.16535

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.39880**	**.08087**	**.09974**	**.09602**	**.95157**	**.12705**	**.05723**	**.62522**
Stddev	.00110	.00023	.00141	.00019	.00060	.00067	.00024	.00226
%RSD	.27476	.27925	1.4119	.19834	.06259	.52494	.41762	.36181
#1	.39769	.08096	.10112	.09624	.95168	.12651	.05704	.62751
#2	.39883	.08061	.09981	.09591	.95093	.12683	.05715	.62517
#3	.39988	.08103	.09830	.09591	.95211	.12779	.05750	.62299

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.72679**	**.03218**	**.07790**	**.19685**	**.59110**	**.15490**	**1.7563**
Stddev	.00189	.00024	.00026	.00034	.00134	.00082	.0087
%RSD	.25979	.73316	.32808	.17464	.22729	.53150	.49730
#1	.72615	.03244	.07819	.19693	.59265	.15442	1.7622
#2	.72530	.03199	.07777	.19715	.59042	.15443	1.7462
#3	.72891	.03211	.07773	.19647	.59024	.15585	1.7603

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S2 Acquired: 1/23/2025 11:53:33 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3427.4	70520.	9681.9	2497.6	4011.8
Stddev	13.5	49.	39.6	9.5	14.0
%RSD	.39384	.06904	.40877	.38121	.34870
#1	3434.9	70558.	9650.8	2488.0	4023.0
#2	3435.4	70535.	9668.5	2497.7	4016.2
#3	3411.8	70465.	9726.5	2507.0	3996.1

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S3 Acquired: 1/23/2025 11:57:39 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.15091	.19163	3.1017	.16774	.38764	.83568	1.9329	1.3306
Stddev	.00072	.00246	.0033	.00070	.00119	.00382	.0084	.0086
%RSD	.47990	1.2814	.10737	.41456	.30814	.45679	.43618	.64549
#1	.15038	.18929	3.1004	.16712	.38761	.83161	1.9233	1.3391
#2	.15061	.19141	3.0992	.16759	.38646	.83623	1.9391	1.3306
#3	.15173	.19419	3.1055	.16849	.38885	.83918	1.9364	1.3220

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.9126	1.0162	1.3515	1.1515	1.1322	.37205	.69132	.35388
Stddev	.0077	.0047	.0025	.0019	.0058	.00216	.00292	.00172
%RSD	.19580	.45844	.18688	.16069	.50836	.58124	.42215	.48464
#1	3.9044	1.0109	1.3486	1.1508	1.1359	.36966	.68846	.35194
#2	3.9137	1.0182	1.3533	1.1501	1.1351	.37262	.69429	.35451
#3	3.9196	1.0196	1.3525	1.1536	1.1256	.37387	.69121	.35519

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.82147	.16975	.20589	.19449	2.0055	.26547	.12583	1.2456
Stddev	.00180	.00035	.00181	.00087	.0089	.00121	.00029	.0071
%RSD	.21866	.20749	.88126	.44580	.44385	.45464	.23174	.56796
#1	.82026	.16958	.20469	.19435	1.9956	.26408	.12558	1.2537
#2	.82061	.17016	.20797	.19542	2.0129	.26606	.12575	1.2423
#3	.82353	.16952	.20499	.19371	2.0079	.26626	.12615	1.2408

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.4955	.07023	.15922	.40931	1.1941	.33290	3.7282
Stddev	.0047	.00007	.00050	.00053	.0050	.00135	.0163
%RSD	.31473	.09586	.31528	.12968	.41678	.40649	.43649
#1	1.4912	.07016	.15974	.40922	1.1946	.33134	3.7168
#2	1.4948	.07023	.15874	.40883	1.1988	.33379	3.7468
#3	1.5005	.07029	.15918	.40988	1.1889	.33356	3.7210

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S3 Acquired: 1/23/2025 11:57:39 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3176.0	66813.	9589.6	2370.0	3683.3
Stddev	6.8	171.	45.2	8.8	2.8
%RSD	.21541	.25607	.47162	.37020	.07598
#1	3183.9	66990.	9553.7	2379.8	3683.9
#2	3171.9	66649.	9574.7	2367.7	3680.2
#3	3172.2	66801.	9640.4	2362.7	3685.7

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S4 Acquired: 1/23/2025 12:01:42 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.29343	.35759	5.8718	.32138	.75856	1.6734	3.7900	2.4807
Stddev	.00110	.00173	.0104	.00101	.00254	.0057	.0473	.0178
%RSD	.37613	.48463	.17697	.31341	.33433	.34388	1.2485	.71722
#1	.29348	.35588	5.8704	.32097	.75701	1.6777	3.8345	2.4864
#2	.29231	.35756	5.8622	.32064	.75719	1.6756	3.7953	2.4607
#3	.29451	.35934	5.8829	.32253	.76149	1.6668	3.7403	2.4949

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.3656	1.9823	2.5470	2.1804	2.1644	.71990	1.3450	.69970
Stddev	.0121	.0047	.0066	.0029	.0050	.00247	.0036	.00232
%RSD	.16372	.23793	.25710	.13227	.22889	.34244	.26361	.33124
#1	7.3628	1.9848	2.5530	2.1799	2.1677	.72124	1.3481	.70154
#2	7.3552	1.9853	2.5400	2.1777	2.1587	.72140	1.3458	.70046
#3	7.3788	1.9769	2.5478	2.1835	2.1667	.71705	1.3411	.69710

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.5471	.33218	.39361	.36808	3.9068	.52568	.24207	2.2804
Stddev	.0032	.00053	.00286	.00152	.0120	.00134	.00062	.0150
%RSD	.20854	.15872	.72703	.41305	.30829	.25494	.25764	.65780
#1	1.5461	.33209	.39413	.36823	3.8976	.52659	.24136	2.2816
#2	1.5445	.33170	.39053	.36649	3.9204	.52631	.24229	2.2648
#3	1.5507	.33275	.39618	.36952	3.9023	.52414	.24255	2.2948

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.8966	.13554	.30208	.77368	2.2506	.67257	7.2762
Stddev	.0091	.00007	.00064	.00197	.0052	.00073	.0493
%RSD	.31518	.05408	.21165	.25480	.22988	.10874	.67746
#1	2.8921	.13548	.30226	.77288	2.2556	.67317	7.2627
#2	2.8906	.13553	.30137	.77223	2.2453	.67279	7.2350
#3	2.9071	.13562	.30261	.77592	2.2508	.67176	7.3308

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S4 Acquired: 1/23/2025 12:01:42 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3015.6	64305.	9577.3	2271.1	3515.1
Stddev	7.9	124.	44.2	3.4	7.4
%RSD	.26221	.19320	.46111	.14855	.21167
#1	3018.3	64163.	9565.2	2274.9	3516.4
#2	3021.8	64389.	9626.2	2269.4	3521.7
#3	3006.7	64364.	9540.4	2268.8	3507.0

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S5 Acquired: 1/23/2025 12:05:53 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.66060**	**.71529**	**12.075**	**.71512**	**1.7064**	**3.5776**	**7.9002**	**5.0616**
Stddev	.00221	.00707	.041	.00280	.0042	.0179	.0169	.0104
%RSD	.33526	.98891	.34091	.39179	.24876	.50083	.21408	.20582
#1	.66061	.71071	12.061	.71547	1.7078	3.5972	7.8811	5.0561
#2	.65838	.71172	12.042	.71215	1.7017	3.5621	7.9132	5.0551
#3	.66281	.72343	12.121	.71772	1.7098	3.5735	7.9064	5.0736

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**14.933**	**4.1172**	**5.0681**	**4.4906**	**4.4044**	**1.4780**	**2.7201**	**1.4693**
Stddev	.061	.0226	.0265	.0158	.0032	.0066	.0017	.0056
%RSD	.41095	.54792	.52229	.35237	.07221	.44774	.06246	.38044
#1	14.907	4.1433	5.0895	4.4855	4.4047	1.4853	2.7215	1.4757
#2	14.888	4.1044	5.0385	4.4780	4.4011	1.4725	2.7207	1.4651
#3	15.003	4.1041	5.0763	4.5084	4.4074	1.4761	2.7182	1.4673

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.1697**	**.71124**	**.79742**	**.74224**	**8.1758**	**1.1349**	**.51715**	**4.5017**
Stddev	.0109	.00266	.00370	.00090	.0144	.0059	.00182	.0132
%RSD	.34455	.37416	.46370	.12084	.17657	.52267	.35238	.29364
#1	3.1691	.71256	.79626	.74328	8.1632	1.1414	.51651	4.4889
#2	3.1590	.70817	.80155	.74167	8.1915	1.1299	.51574	4.5008
#3	3.1809	.71298	.79443	.74178	8.1727	1.1332	.51921	4.5153

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.2623**	**.29416**	**.61181**	**1.5788**	**4.5189**	**1.4344**	**15.006**
Stddev	.0191	.00140	.00076	.0072	.0042	.0065	.199
%RSD	.30450	.47540	.12365	.45844	.09267	.45581	1.3247
#1	6.2688	.29392	.61099	1.5742	4.5175	1.4416	15.208
#2	6.2409	.29290	.61248	1.5750	4.5236	1.4288	14.811
#3	6.2773	.29566	.61195	1.5872	4.5155	1.4329	14.999

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S5 Acquired: 1/23/2025 12:05:53 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2601.9	60053.	9228.7	2079.9	3151.4
Stddev	4.2	257.	19.0	4.8	7.8
%RSD	.16331	.42766	.20628	.22971	.24670
#1	2599.2	59820.	9237.3	2077.6	3155.2
#2	2606.8	60328.	9241.9	2085.4	3156.5
#3	2599.7	60011.	9206.8	2076.7	3142.4

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: S6 Acquired: 1/23/2025 12:10:27 Type: Cal
Method: EPA SFAM01.0(v52) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**9.5094**	**6.6843**	**3.9348**	**2.4058**	**2.2016**
Stddev	.0545	.0180	.0297	.0037	.0063
%RSD	.57324	.26972	.75485	.15572	.28688
#1	9.4642	6.6635	3.9109	2.4017	2.2088
#2	9.4940	6.6950	3.9254	2.4070	2.1988
#3	9.5699	6.6945	3.9680	2.4089	2.1971

Int. Std.	Y_3600	Y_3710
Units	Cts/S	Cts/S
Avg	**56117.**	**8960.0**
Stddev	86.	54.9
%RSD	.15366	.61312
#1	56022.	8897.1
#2	56190.	8984.4
#3	56139.	8998.5

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: ICV001 Acquired: 1/23/2025 12:36:38 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV001 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.007508**	**1.056205**	**.9743454**	**1.061417**	**.9724914**	**2.523276**
Stddev	.002037	.010363	.0033675	.006486	.0006370	.014806
%RSD	.2022212	.9811987	.3456164	.6110703	.0655043	.5867783
#1	1.005173	1.044673	.9711541	1.059260	.9718062	2.509548
#2	1.008425	1.059202	.9740169	1.056284	.9726022	2.521315
#3	1.008925	1.064740	.9778651	1.068707	.9730657	2.538965

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5453292**	**.4825052**	**.4841564**	**10.18213**	**.5293949**	**.4737222**
Stddev	.0042311	.0020994	.0016822	.05187	.0017423	.0010740
%RSD	.7758795	.4351132	.3474598	.5094696	.3291171	.2267116
#1	.5406581	.4836393	.4823595	10.13055	.5303987	.4728592
#2	.5464246	.4837937	.4844158	10.18154	.5273830	.4733823
#3	.5489049	.4800826	.4856939	10.23430	.5304030	.4749250

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5502119**	**10.60016**	**.5511894**	**6.541684**	**.4889528**	**.2487321**
Stddev	.0014583	.04986	.0037545	.036150	.0008844	.0003948
%RSD	.2650457	.4703373	.6811590	.5526079	.1808840	.1587437
#1	.5487428	10.54587	.5470936	6.503295	.4881795	.2491252
#2	.5516592	10.61072	.5520065	6.546684	.4887619	.2487356
#3	.5502339	10.64389	.5544680	6.575074	.4899172	.2483356

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.726646**	**.4979998**	**1.072495**	**10.45073**	**4.935844**	**5.188170**
Stddev	.095025	.0040928	.006390	.07734	.015983	.027092
%RSD	.9769513	.8218396	.5958193	.7400914	.3238213	.5221939
#1	9.665816	.4932804	1.065154	10.36464	4.919217	5.215727
#2	9.836146	.5005751	1.076809	10.47319	4.937220	5.187216
#3	9.677976	.5001439	1.075522	10.51436	4.951095	5.161567

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: ICV001 Acquired: 1/23/2025 12:36:38 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV001 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.318601**	**4.796258**	F **.0047791**	**5.367198**	**5.382237**	**5.286302**
Stddev	.013105	.018220	.0013198	.013257	.023832	.034753
%RSD	.2464064	.3798846	27.61599	.2469981	.4427968	.6574213
#1	5.309410	4.781443	.0041296	5.361938	5.355405	5.250635
#2	5.312785	4.790729	.0062978	5.357378	5.400948	5.288210
#3	5.333608	4.816602	.0039099	5.382277	5.390356	5.320063

Elem	Sr4077
Units	ppm
Avg	**5.003630**
Stddev	.014046
%RSD	.2807248
#1	5.019191
#2	4.991889
#3	4.999809

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3380.516**	**70875.27**	**10010.57**	**2449.646**	**4096.622**
Stddev	2.593	147.04	38.99	11.164	3.480
%RSD	.0767034	.2074678	.3894777	.4557485	.0849601
#1	3382.789	70832.64	9974.25	2458.416	4100.520
#2	3381.069	71038.92	10005.69	2437.079	4095.520
#3	3377.692	70754.25	10051.77	2453.444	4093.825

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: ICB001 Acquired: 1/23/2025 12:49:25 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB001 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001954**	**.0007576**	**-.001397**	**.0011592**	**.0000117**	**-.008975**	**-.003369**
Stddev	.001083	.0009497	.000372	.0024361	.0013311	.002067	.000637
%RSD	55.40605	125.3602	26.66171	210.1617	11402.82	23.03177	18.91710
#1	-.003175	-.000322	-.001698	.0038878	-.001346	-.006660	-.003154
#2	-.001110	.001463	-.001511	-.000797	.001314	-.009630	-.002867
#3	-.001577	.001132	-.000981	.000387	.000067	-.010636	-.004086

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000015**	**-.000028**	**.0000807**	**.0001880**	**-.000162**	**.0021425**	**.0006149**
Stddev	.000132	.000006	.0056087	.0001266	.000175	.0019010	.0028517
%RSD	879.4581	20.60542	6951.911	67.30957	107.6747	88.73041	463.7742
#1	.000038	-.000030	.0064469	.0000842	-.000137	.0002947	-.001448
#2	-.000165	-.000022	-.004133	.0001508	-.000002	.0020402	.003869
#3	.000082	-.000033	-.002072	.0003290	-.000349	.0040926	-.000577

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002218**	**.0117227**	**-.000055**	**-.000243**	**-.218908**	**-.000989**	**.0012173**
Stddev	.0000895	.0054109	.000149	.000219	.274555	.000742	.0009770
%RSD	40.37322	46.15774	269.3079	90.08752	125.4203	75.07495	80.26074
#1	.0003064	.0077207	.000100	-.000291	-.323073	-.000348	.0004672
#2	.0002307	.0095684	-.000197	-.000433	.092487	-.000816	.0023221
#3	.0001281	.0178789	-.000069	-.000004	-.426137	-.001803	.0008625

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.054035**	**-.000737**	**.0039160**	**-.000140**	**.0006459**	**.0022398**	**-.000528**
Stddev	.010022	.000706	.0009405	.000086	.0003131	.0024815	.000621
%RSD	18.54771	95.67552	24.01607	61.14295	48.47333	110.7917	117.6057
#1	-.064394	-.001290	.0044576	-.000224	.0008908	.0050915	-.000557
#2	-.044387	.000057	.0044602	-.000053	.0002931	.0005719	-.001134
#3	-.053325	-.000979	.0028300	-.000144	.0007537	.0010560	.000107

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: ICB001 Acquired: 1/23/2025 12:49:25 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB001 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000487	-.002287	.0000263
Stddev	.000580	.001007	.0000534
%RSD	119.1775	44.03790	203.4712
#1	-.000061	-.003213	.0000793
#2	-.001148	-.002432	-.000028
#3	-.000252	-.001215	.000027

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3411.618	72648.05	9967.265	2493.233	4330.189
Stddev	2.240	1394.20	60.889	33.178	12.566
%RSD	.0656454	1.919114	.6108920	1.330730	.2902014
#1	3412.034	74253.56	10015.39	2530.719	4324.633
#2	3413.621	71742.58	9898.81	2467.643	4344.575
#3	3409.200	71948.01	9987.59	2481.338	4321.359

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: ICSA001 Acquired: 1/23/2025 13:08:35 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA001 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000667**	**.0028375**	**.0034639**	**.0264925**	**.0076593**	**236.8295**
Stddev	.002918	.0044781	.0012263	.0008461	.0025196	.7369
%RSD	437.4662	157.8187	35.40130	3.193678	32.89573	.3111505
#1	-.000096	.0005937	.0021176	.0274177	.0087739	237.5950
#2	.001923	.0079939	.0037573	.0263016	.0094294	236.7683
#3	-.003829	-.000075	.0045169	.0257582	.0047747	236.1250

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030690**	**-.000685**	**.0014557**	**244.3977**	**.0610420**	**.0010145**
Stddev	.0002509	.000085	.0001224	.6303	.0005902	.0001322
%RSD	8.175992	12.33755	8.408626	.2578852	.9667969	13.02993
#1	.0033105	-.000780	.0014795	245.0869	.0613979	.0010730
#2	.0030870	-.000658	.0013232	244.2554	.0613674	.0011074
#3	.0028096	-.000618	.0015645	243.8507	.0603608	.0008632

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.007580**	**102.0137**	**.0126633**	**239.7192**	**.0036649**	**.0030744**
Stddev	.002441	.3349	.0002022	.3577	.0000758	.0002051
%RSD	32.19492	.3282712	1.596917	.1492005	2.068885	6.671846
#1	-.005286	102.3698	.0124580	240.0615	.0036442	.0028554
#2	-.010144	101.9661	.0128623	239.7482	.0036016	.0031056
#3	-.007311	101.7051	.0126696	239.3479	.0037489	.0032621

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.290889**	**-.004441**	**-.007031**	**-.090357**	**.0052797**	F **.4102032**
Stddev	.138758	.000511	.002730	.038247	.0018018	.0025457
%RSD	47.70126	11.51507	38.83297	42.32876	34.12660	.6206082
#1	-.151146	-.004556	-.005112	-.079063	.0042072	.4129908
#2	-.292881	-.004885	-.010157	-.132980	.0073599	.4096173
#3	-.428639	-.003882	-.005824	-.059029	.0042721	.4080014

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: ICSA001 Acquired: 1/23/2025 13:08:35 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA001 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000797**	**.0230679**	**.0037426**	**-.002902**	**-.003605**	**.0045075**
Stddev	.000405	.0024484	.0031375	.000595	.000698	.0011283
%RSD	50.84201	10.61408	83.83012	20.51226	19.37473	25.03223
#1	-.000858	.0249910	.0038617	-.002217	-.002816	.0046237
#2	-.001168	.0239011	.0005473	-.003297	-.003853	.0055732
#3	-.000365	.0203116	.0068188	-.003191	-.004145	.0033256

Elem	Sr4077
Units	ppm
Avg	**.0922856**
Stddev	.0004400
%RSD	.4767352
#1	.0927411
#2	.0922527
#3	.0918630

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3066.278**	**63583.25**	**9664.174**	**2197.089**	**3547.751**
Stddev	13.093	205.73	24.431	3.656	9.331
%RSD	.4270001	.3235640	.2527948	.1663917	.2630034
#1	3051.189	63689.15	9685.203	2195.978	3537.034
#2	3074.642	63346.14	9637.375	2194.118	3554.069
#3	3073.004	63714.46	9669.945	2201.172	3552.151

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: ICSAB001 Acquired: 1/23/2025 13:15:52 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB001 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0918198**	**.1098257**	**.0528339**	**.0647005**	**.5534514**	**227.9911**
Stddev	.0020233	.0021457	.0024690	.0012526	.0035093	.4302
%RSD	2.203566	1.953757	4.673055	1.936038	.6340663	.1886844
#1	.0928618	.1079648	.0517330	.0647195	.5494215	227.5513
#2	.0931098	.1121728	.0556618	.0659436	.5550993	228.0111
#3	.0894879	.1093394	.0511069	.0634385	.5558334	228.4109

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4749284**	**.5048580**	**.9729587**	**234.3466**	**.5991342**	**.4919130**
Stddev	.0002778	.0011027	.0021930	.4266	.0017579	.0008793
%RSD	.0584902	.2184205	.2253958	.1820482	.2934039	.1787408
#1	.4748137	.5052396	.9712608	233.9267	.5991233	.4914646
#2	.4747263	.5057194	.9721808	234.7796	.6008975	.4913483
#3	.4752451	.5036152	.9754347	234.3335	.5973818	.4929260

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4710609**	**97.77485**	**.4940111**	**229.0995**	**.9771576**	**.2029260**
Stddev	.0051461	.14423	.0007656	.4426	.0021783	.0009210
%RSD	1.092457	.1475100	.1549732	.1931786	.2229214	.4538780
#1	.4708766	97.61326	.4932523	228.6256	.9772452	.2031902
#2	.4660095	97.89054	.4947833	229.5021	.9749368	.2036861
#3	.4762968	97.82076	.4939976	229.1708	.9792907	.2019017

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.341063**	**.4712411**	**.9656002**	**-.468326**	**.0054772**	F **.3871947**
Stddev	.233776	.0019848	.0049414	.023720	.0003853	.0007042
%RSD	68.54347	.4211846	.5117430	5.064843	7.034378	.1818684
#1	-.467830	.4732672	.9669039	-.495407	.0059219	.3864001
#2	-.071284	.4711558	.9601377	-.451234	.0052660	.3877415
#3	-.484075	.4693003	.9697590	-.458339	.0052438	.3874426

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: ICSAB001 Acquired: 1/23/2025 13:15:52 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB001 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001195**	**.0159721**	**.0039508**	**-.004014**	**-.004684**	**.0024809**
Stddev	.000287	.0087316	.0030609	.000628	.001240	.0012736
%RSD	23.99108	54.66816	77.47655	15.63945	26.46200	51.33544
#1	-.000916	.0147035	.0072884	-.004529	-.006009	.0028352
#2	-.001489	.0252686	.0032893	-.003315	-.003553	.0035397
#3	-.001180	.0079441	.0012747	-.004197	-.004490	.0010677

Elem	Sr4077
Units	ppm
Avg	**.0882112**
Stddev	.0002754
%RSD	.3121494
#1	.0879300
#2	.0882234
#3	.0884803

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3137.789**	**63569.21**	**9440.399**	**2210.991**	**3646.544**
Stddev	1.729	163.92	27.335	3.705	2.371
%RSD	.0551011	.2578621	.2895544	.1675637	.0650143
#1	3137.395	63556.48	9418.078	2207.449	3648.018
#2	3136.291	63412.02	9432.233	2214.840	3647.804
#3	3139.680	63739.12	9470.887	2210.685	3643.809

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV001 Acquired: 1/23/2025 13:28:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV001 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.959269**	**4.948479**	**24.53406**	**4.998708**	**5.055975**	**419.8155**
Stddev	.010902	.028607	.03998	.013263	.010027	.8660
%RSD	.2198341	.5780910	.1629417	.2653250	.1983266	.2062892
#1	4.947801	4.917261	24.53438	4.984287	5.046248	419.3417
#2	4.969499	4.954737	24.49392	5.001455	5.055399	419.2898
#3	4.960508	4.973438	24.57387	5.010383	5.066277	420.8151

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.44686**	**.4887662**	**2.475746**	**414.7822**	**15.79966**	**2.494841**
Stddev	.09389	.0015877	.001915	.5987	.01238	.003735
%RSD	.8987499	.3248375	.0773368	.1443420	.0783705	.1497181
#1	10.53104	.4903682	2.476633	414.5312	15.81396	2.497817
#2	10.46394	.4871933	2.473549	414.3498	15.79256	2.490650
#3	10.34560	.4887371	2.477057	415.4655	15.79248	2.496058

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.79702**	**420.6141**	**15.51223**	**412.9021**	**2.488414**	**1.313454**
Stddev	.02059	1.1135	.02592	.6303	.004104	.000643
%RSD	.1391539	.2647256	.1670698	.1526477	.1649199	.0489313
#1	14.80181	419.5591	15.48577	412.1846	2.491630	1.314192
#2	14.81479	421.7780	15.53757	413.3661	2.483792	1.313022
#3	14.77446	420.5053	15.51334	413.1558	2.489821	1.313147

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**389.7901**	**2.463543**	**16.00813**	**162.6031**	**4.980700**	F **5.896645**
Stddev	.4486	.007229	.04238	.6050	.006813	.005164
%RSD	.1150769	.2934386	.2647600	.3720694	.1367957	.0875704
#1	389.3936	2.456452	15.96625	161.9671	4.976878	5.901997
#2	390.2770	2.470902	16.05100	163.1714	4.976655	5.891692
#3	389.6996	2.463276	16.00715	162.6710	4.988567	5.896246

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV001 Acquired: 1/23/2025 13:28:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV001 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.966958**	**5.038593**	**4.946768**	**4.946838**	**4.943762**	**5.337739**
Stddev	.007213	.031784	.009875	.009354	.003343	.016372
%RSD	.1452225	.6308145	.1996335	.1890963	.0676287	.3067296
#1	4.958711	5.062468	4.958147	4.951280	4.944173	5.322945
#2	4.970072	5.002515	4.941721	4.936090	4.946880	5.355329
#3	4.972092	5.050795	4.940436	4.953142	4.940232	5.334942

Elem	Sr4077
Units	ppm
Avg	**5.295587**
Stddev	.044645
%RSD	.8430632
#1	5.265172
#2	5.274749
#3	5.346842

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2737.625**	**59158.20**	**9359.951**	**1997.687**	**3192.689**
Stddev	2.622	1.10	17.811	3.317	3.514
%RSD	.0957849	.0018601	.1902878	.1660437	.1100527
#1	2740.342	59157.38	9339.846	2001.332	3190.873
#2	2735.109	59157.77	9373.753	1994.845	3196.739
#3	2737.425	59159.45	9366.255	1996.886	3190.455

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB001 Acquired: 1/23/2025 13:33:09 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB001 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002236**	**-.001103**	**-.000042**	**.0030579**	**.0002468**	**.0048564**	**-.002834**
Stddev	.000717	.001328	.001060	.0023039	.0008091	.0019726	.000581
%RSD	32.07343	120.4030	2523.912	75.34482	327.8022	40.61881	20.50965
#1	-.002275	.000374	-.000527	.0005805	-.000161	.0026366	-.002445
#2	-.002933	-.002198	.001174	.0051362	-.000278	.0055242	-.003502
#3	-.001500	-.001483	-.000773	.0034568	.001179	.0064084	-.002556

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000200**	**.0000437**	**.0095938**	**.0003425**	**-.000056**	**.0057997**	**.0070983**
Stddev	.0000807	.0000222	.0046519	.0002399	.000288	.0013910	.0010005
%RSD	403.1908	50.85127	48.48839	70.02611	518.1180	23.98473	14.09489
#1	.0000383	.0000603	.0107471	.0003229	-.000129	.0058758	.0065595
#2	-.000068	.0000524	.0135605	.0005916	-.000300	.0071511	.0064826
#3	.000090	.0000185	.0044737	.0001131	.000262	.0043722	.0082527

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004116**	**.0159269**	**.0001469**	**-.000145**	**.1096728**	**.0004571**	**.0003431**
Stddev	.0002737	.0270143	.0002001	.000284	.1808451	.0016470	.0008937
%RSD	66.49989	169.6142	136.2314	195.1489	164.8951	360.3479	260.5032
#1	.0002132	-.003230	.0003145	-.000252	.2382672	.0020861	-.000472
#2	.0007239	.046825	.0002007	-.000361	-.097111	-.001207	.001299
#3	.0002977	.004186	-.000075	.000176	.187863	.000492	.000203

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0495353**	**.0019191**	**.0059073**	**-.000015**	**.0012597**	**.0007045**	**-.000249**
Stddev	.0078743	.0009484	.0002410	.000155	.0013838	.0030113	.000608
%RSD	15.89638	49.41871	4.079962	1023.897	109.8553	427.4384	244.3229
#1	.0585853	.0013015	.0060167	-.000095	.0026199	.0041293	.000321
#2	.0457711	.0014447	.0056310	.000164	.0013058	-.000487	-.000179
#3	.0442496	.0030110	.0060743	-.000114	-.000147	-.001529	-.000888

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB001 Acquired: 1/23/2025 13:33:09 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB001 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005603	-.001751	.0000889
Stddev	.0007359	.001288	.0000403
%RSD	131.3283	73.59963	45.33711
#1	.0004375	-.000316	.0001349
#2	.0013499	-.002809	.0000723
#3	-.000106	-.002127	.0000596

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3463.920	71869.20	9977.434	2451.366	4413.945
Stddev	15.723	246.22	20.204	13.774	20.089
%RSD	.4538973	.3425926	.2024944	.5618753	.4551229
#1	3446.409	71623.83	9954.167	2435.695	4391.359
#2	3476.826	71867.50	9987.595	2456.848	4429.818
#3	3468.525	72116.26	9990.540	2461.554	4420.658

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166001BL Acquired: 1/23/2025 13:37:18 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS001 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001768**	**-.000054**	**-.000416**	**.0000560**	**.0002856**	**-.007382**	**-.001765**
Stddev	.001620	.000862	.001071	.0026706	.0003694	.004163	.000977
%RSD	91.60198	1585.518	257.6481	4768.203	129.3311	56.39637	55.36121
#1	-.003541	-.000140	-.001548	.0029775	-.000117	-.011969	-.001270
#2	-.000364	-.000870	.000581	-.000550	.000366	-.006333	-.002890
#3	-.001400	.000847	-.000280	-.002260	.000608	-.003843	-.001134

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000071**	**-.000044**	**.0067167**	**.0004608**	**-.000023**	**.0036982**	**-.004601**
Stddev	.0000296	.000038	.0064630	.0003175	.000107	.0021008	.004599
%RSD	419.9400	85.92933	96.22364	68.89622	466.9758	56.80563	99.96543
#1	.0000252	-.000078	.0063866	.0005286	-.000115	.0028675	.000634
#2	-.000027	-.000050	.0133384	.0007390	-.000048	.0021398	-.006444
#3	.000023	-.000004	.0004250	.0001149	.000094	.0060874	-.007993

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003295**	**.0141282**	**-.000135**	**-.000253**	**.0903481**	**.0014476**	**-.001600**
Stddev	.0003120	.0089386	.000327	.000353	.1847607	.0015365	.003339
%RSD	94.70445	63.26774	242.4050	139.8837	204.4988	106.1426	208.7565
#1	.0005765	.0091122	.000044	-.000473	-.120882	-.000314	-.003815
#2	-.000021	.0244483	.000063	.000155	.221906	.002142	-.003226
#3	.000433	.0088241	-.000513	-.000440	.170020	.002514	.002241

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0310754**	**.0006236**	**.0032947**	**-.000174**	**.0020307**	**.0078591**	**.0000862**
Stddev	.0746093	.0009594	.0005072	.000215	.0022338	.0010156	.0011120
%RSD	240.0916	153.8640	15.39525	123.6752	109.9988	12.92220	1289.893
#1	-.043559	.0015398	.0033395	-.000277	-.000138	.0085180	-.000881
#2	.031125	-.000374	.0037780	.000073	.004324	.0066895	.001301
#3	.105660	.000705	.0027665	-.000318	.001906	.0083697	-.000162

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166001BL Acquired: 1/23/2025 13:37:18 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS001 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000684	-.003048	.0000495
Stddev	.000540	.001278	.0000197
%RSD	78.90090	41.92348	39.73897
#1	-.001261	-.003858	.0000295
#2	-.000602	-.001575	.0000501
#3	-.000190	-.003712	.0000688

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3411.856	71127.71	9977.533	2445.054	4316.741
Stddev	4.668	148.51	42.597	10.483	3.354
%RSD	.1368044	.2087984	.4269279	.4287357	.0776996
#1	3406.562	70956.28	9979.300	2433.354	4315.260
#2	3415.379	71209.44	10019.22	2453.593	4320.581
#3	3413.628	71217.41	9934.08	2448.214	4314.383

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166001BS Acquired: 1/23/2025 13:41:28 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS001 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0177942**	**.0561371**	**.0177729**	**.0674509**	**.1129643**	**.4071776**	**.3784476**
Stddev	.0020121	.0008424	.0010323	.0025061	.0016513	.0088309	.0019352
%RSD	11.30778	1.500643	5.808313	3.715476	1.461814	2.168800	.5113480
#1	.0170006	.0557868	.0179757	.0690684	.1111036	.4124562	.3786429
#2	.0162999	.0555264	.0166542	.0645640	.1142556	.3969827	.3802777
#3	.0200821	.0570982	.0186888	.0687202	.1135337	.4120938	.3764222

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0104560**	**.0102156**	**9.861336**	**.0223233**	**.0994506**	**.0581587**	**.2093739**
Stddev	.0000684	.0000477	.052059	.0003225	.0002735	.0034829	.0061616
%RSD	.6546444	.4671497	.5279125	1.444732	.2749563	5.988651	2.942856
#1	.0105283	.0102316	9.814079	.0225206	.0996767	.0566194	.2049725
#2	.0103921	.0101619	9.917139	.0219511	.0991466	.0621460	.2067336
#3	.0104475	.0102533	9.852789	.0224982	.0995284	.0557105	.2164157

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0312445**	**8.965041**	**.0810299**	**.0190708**	**10.06642**	**.1061480**	**.1249916**
Stddev	.0004786	.041657	.0002696	.0001628	.23406	.0011292	.0001729
%RSD	1.531637	.4646627	.3327653	.8536185	2.325122	1.063830	.1383544
#1	.0306941	8.925682	.0810135	.0190948	9.86677	.1052497	.1249085
#2	.0315616	9.008668	.0807687	.0192203	10.32400	.1074157	.1251904
#3	.0314779	8.960772	.0813073	.0188974	10.00849	.1057788	.1248758

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.150262**	**.0207744**	**.0030283**	**.0203778**	**.1790906**	**.4704521**	**.0143981**
Stddev	.052952	.0017712	.0007114	.0000269	.0056003	.0028193	.0011021
%RSD	.5786969	8.525706	23.49190	.1320880	3.127071	.5992806	7.654737
#1	9.090475	.0188156	.0028562	.0204063	.1832875	.4708302	.0141590
#2	9.169064	.0212444	.0024186	.0203529	.1727315	.4730633	.0134352
#3	9.191248	.0222631	.0038099	.0203741	.1812527	.4674628	.0156002

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166001BS Acquired: 1/23/2025 13:41:28 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS001 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2088677	.0251052	.1784047
Stddev	.0005928	.0014946	.0012129
%RSD	.2838246	5.953332	.6798338
#1	.2091747	.0234861	.1778504
#2	.2092442	.0264321	.1797956
#3	.2081844	.0253976	.1775680

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3421.040	70560.88	9970.185	2425.324	4235.853
Stddev	8.471	152.34	61.413	8.170	8.986
%RSD	.2476220	.2159053	.6159647	.3368517	.2121343
#1	3416.210	70562.70	9904.119	2419.427	4231.175
#2	3430.821	70407.64	10025.53	2421.896	4246.212
#3	3416.088	70712.31	9980.90	2434.650	4230.172

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166002BL Acquired: 1/23/2025 13:45:35 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS002 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001249**	**.0007499**	**-.000057**	**.0028455**	**.0000646**	**.0383812**	**-.003183**
Stddev	.001047	.0008713	.000692	.0008034	.0012162	.0053380	.000362
%RSD	83.84288	116.1899	1211.067	28.23487	1883.747	13.90789	11.38434
#1	-.001572	.0014671	-.000266	.0035056	-.000953	.0353712	-.003592
#2	-.002098	-.000220	.000715	.0030799	.001412	.0352279	-.003054
#3	-.000079	.001002	-.000621	.0019509	-.000266	.0445444	-.002902

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000006**	**.0000095**	**.0218299**	**.0002583**	**-.000019**	**.0048387**	**-.001190**
Stddev	.000042	.0000375	.0102316	.0002738	.000116	.0008919	.004201
%RSD	662.8759	395.6453	46.86969	106.0276	604.9723	18.43329	353.0739
#1	-.000009	.0000098	.0100709	.0000131	-.000153	.0040129	.002673
#2	.000037	-.000028	.0267196	.0005538	.000054	.0047186	-.000581
#3	-.000047	.000047	.0286992	.0002079	.000041	.0057846	-.005661

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005585**	**.0183662**	**-.000122**	**-.000154**	**.1135086**	**-.000031**	**.0000174**
Stddev	.0002659	.0070939	.000221	.000363	.1795320	.001110	.0003590
%RSD	47.61191	38.62476	180.8039	235.4840	158.1660	3588.704	2061.907
#1	.0002722	.0213047	.000109	-.000571	.0339194	.001208	-.000046
#2	.0007978	.0235187	-.000332	.000026	.3190768	-.000933	-.000306
#3	.0006055	.0102752	-.000144	.000083	-.012470	-.000368	.000404

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.046097**	**.0020846**	**.0013863**	**-.000343**	**-.000549**	**.0041453**	**.0002500**
Stddev	.018890	.0008782	.0003544	.000346	.002075	.0004084	.0001809
%RSD	40.97861	42.12622	25.56599	100.6599	378.1529	9.852312	72.37725
#1	-.066727	.0010995	.0016066	-.000743	.000184	.0042120	.0004589
#2	-.041916	.0027855	.0009775	-.000136	.001060	.0045162	.0001438
#3	-.029648	.0023688	.0015749	-.000152	-.002890	.0037076	.0001473

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166002BL Acquired: 1/23/2025 13:45:35 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS002 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0004016	-.003715	.0000232
Stddev	.0011842	.000694	.0000443
%RSD	294.8995	18.69156	191.2580
#1	-.000197	-.004470	.0000464
#2	-.000364	-.003570	.0000509
#3	.001766	-.003104	-.000028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3453.792	71772.69	10047.35	2481.911	4374.928
Stddev	10.228	105.90	20.76	5.373	9.073
%RSD	.2961462	.1475431	.2066480	.2165060	.2073897
#1	3463.920	71651.90	10069.76	2478.927	4383.991
#2	3453.989	71849.55	10028.77	2488.114	4374.949
#3	3443.466	71816.62	10043.50	2478.692	4365.845

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166002BS Acquired: 1/23/2025 13:49:44 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS002 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0176013**	**.0551235**	**.0198241**	**.0686019**	**.1139005**	**.4077236**	**.3810148**
Stddev	.0021880	.0009308	.0002593	.0008273	.0004711	.0086604	.0003098
%RSD	12.43063	1.688618	1.308038	1.205883	.4136406	2.124082	.0813140
#1	.0155716	.0559888	.0201142	.0680582	.1140345	.3982272	.3808019
#2	.0199189	.0541387	.0197433	.0695539	.1133768	.4151857	.3813702
#3	.0173133	.0552429	.0196149	.0681935	.1142901	.4097580	.3808722

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0103976**	**.0103074**	**9.877801**	**.0223181**	**.1009395**	**.0565933**	**.2053867**
Stddev	.0001007	.0000569	.023582	.0001900	.0004969	.0036678	.0106510
%RSD	.9686673	.5520450	.2387371	.8511037	.4923024	6.480915	5.185809
#1	.0103474	.0102513	9.857762	.0221009	.1005978	.0539043	.1930942
#2	.0105136	.0103651	9.871854	.0224004	.1007111	.0607714	.2118685
#3	.0103319	.0103059	9.903787	.0224531	.1015095	.0551041	.2111976

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0308483**	**8.884515**	**.0819676**	**.0189791**	**10.10063**	**.1082367**	**.1302781**
Stddev	.0001926	.027549	.0004083	.0005370	.46656	.0025535	.0017613
%RSD	.6242304	.3100830	.4981859	2.829245	4.619111	2.359215	1.351928
#1	.0308550	8.856198	.0814972	.0185709	10.39094	.1065108	.1295595
#2	.0310374	8.886120	.0821750	.0187789	10.34849	.1070294	.1289898
#3	.0306524	8.911227	.0822307	.0195874	9.56245	.1111701	.1322851

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.078017**	**.0201316**	**.0014884**	**.0204076**	**.1782328**	**.4807525**	**.0149332**
Stddev	.039408	.0016343	.0004535	.0003574	.0036560	.0035011	.0004776
%RSD	.4341068	8.118119	30.46925	1.751272	2.051255	.7282549	3.198033
#1	9.120940	.0206390	.0013028	.0206220	.1780366	.4843096	.0147485
#2	9.043471	.0214520	.0011572	.0206059	.1819829	.4773102	.0154755
#3	9.069639	.0183038	.0020053	.0199950	.1746788	.4806377	.0145755

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166002BS Acquired: 1/23/2025 13:49:44 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS002 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2139633	.0244425	.1783279
Stddev	.0004326	.0005050	.0003749
%RSD	.2021670	2.066095	.2102147
#1	.2136911	.0238605	.1779372
#2	.2144621	.0247025	.1786846
#3	.2137367	.0247646	.1783620

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3418.987	72110.45	9996.332	2455.674	4232.647
Stddev	10.824	197.77	29.236	12.945	9.781
%RSD	.3165795	.2742572	.2924710	.5271618	.2310880
#1	3418.413	72119.76	9992.058	2457.674	4236.470
#2	3430.086	72303.40	10027.47	2467.503	4239.939
#3	3408.461	71908.19	9969.47	2441.845	4221.532

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166023BL Acquired: 1/23/2025 13:53:47 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS023 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003192**	**.0006413**	**-.001559**	**.0028723**	**-.000222**	**.0794228**	**-.001613**
Stddev	.001511	.0012716	.000641	.0032545	.001477	.0050661	.000321
%RSD	47.32599	198.2854	41.11859	113.3062	665.6563	6.378637	19.89180
#1	-.004312	.0013628	-.002104	.0032310	.000555	.0846675	-.001529
#2	-.001474	.0013880	-.001721	.0059327	-.001925	.0790443	-.001967
#3	-.003791	-.000827	-.000853	-.000547	.000705	.0745565	-.001342

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000464**	**.0000123**	**-.000060**	**.0004829**	**.0000522**	**.0030884**	**-.003555**
Stddev	.0000292	.0000264	.010272	.0001639	.0000186	.0020286	.002649
%RSD	63.00558	214.1213	17171.19	33.94900	35.62739	65.68287	74.53285
#1	.0000760	.0000140	-.011843	.0005743	.0000368	.0054099	-.006519
#2	.0000175	.0000378	.004656	.0002936	.0000469	.0016573	-.001418
#3	.0000458	-.000015	.007008	.0005806	.0000728	.0021981	-.002726

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004396**	**.0095058**	**-.000200**	**-.000291**	**.1804637**	**.0007353**	**.0006976**
Stddev	.0000963	.0015910	.000220	.000298	.0776668	.0014411	.0007654
%RSD	21.91173	16.73725	109.9863	102.2232	43.03734	195.9786	109.7256
#1	.0003285	.0094252	-.000072	-.000176	.0965140	-.000812	.0006314
#2	.0004920	.0079566	-.000074	-.000630	.1951171	.000978	-.000033
#3	.0004985	.0111356	-.000454	-.000069	.2497601	.002040	.001494

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.034278**	**.0020864**	**-.000392**	**-.000316**	**.0018504**	**.0034660**	**.0002524**
Stddev	.059560	.0011485	.000556	.000069	.0019908	.0022755	.0002377
%RSD	173.7524	55.04883	142.0819	21.77737	107.5887	65.65316	94.16500
#1	-.102713	.0008431	-.000591	-.000368	-.000263	.0054053	.0005069
#2	.005843	.0023082	-.000820	-.000342	.002124	.0009610	.0002138
#3	-.005966	.0031079	.000237	-.000238	.003690	.0040318	.0000364

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166023BL Acquired: 1/23/2025 13:53:47 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS023 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000277	-.003965	.0000500
Stddev	.000560	.000880	.0000650
%RSD	202.0126	22.19922	130.0346
#1	-.000063	-.003159	-.000002
#2	-.000913	-.003831	.000123
#3	.000144	-.004904	.000029

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3480.688	71502.79	10026.80	2465.179	4425.579
Stddev	7.237	315.63	23.59	7.228	5.834
%RSD	.2079076	.4414290	.2352240	.2932145	.1318282
#1	3482.097	71405.13	10001.95	2473.374	4429.832
#2	3487.116	71855.71	10048.87	2459.713	4427.978
#3	3472.850	71247.53	10029.57	2462.449	4418.928

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166023BS Acquired: 1/23/2025 13:57:57 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS023 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0156160**	**.0571817**	**.0193528**	**.0693472**	**.1152326**	**.3783603**	**.3721695**
Stddev	.0011665	.0021973	.0003271	.0022753	.0010979	.0103976	.0015861
%RSD	7.469837	3.842714	1.690018	3.281003	.9527473	2.748062	.4261745
#1	.0156800	.0597181	.0192626	.0713842	.1147184	.3689298	.3705176
#2	.0167492	.0558593	.0190803	.0668917	.1144862	.3766406	.3723105
#3	.0144188	.0559675	.0197155	.0697656	.1164932	.3895105	.3736804

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0106551**	**.0103003**	**9.767142**	**.0226636**	**.1010750**	**.0562001**	**.2081819**
Stddev	.0001573	.0000531	.060017	.0002408	.0004312	.0025204	.0048976
%RSD	1.476341	.5152996	.6144830	1.062458	.4266197	4.484639	2.352540
#1	.0108229	.0103375	9.697846	.0229309	.1015545	.0591021	.2028460
#2	.0105110	.0102395	9.800967	.0225963	.1007191	.0549385	.2092272
#3	.0106314	.0103238	9.802612	.0224636	.1009513	.0545596	.2124723

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0304636**	**8.848362**	**.0821477**	**.0194335**	**9.609872**	**.1067915**	**.1205286**
Stddev	.0003131	.098129	.0002312	.0003558	.037652	.0011526	.0012431
%RSD	1.027641	1.109008	.2814430	1.830743	.3918085	1.079268	1.031334
#1	.0301022	8.738729	.0824135	.0194218	9.643259	.1080791	.1205366
#2	.0306378	8.878382	.0819931	.0190837	9.617298	.1058563	.1217676
#3	.0306508	8.927974	.0820366	.0197949	9.569060	.1064390	.1192815

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.081753**	**.0197286**	**.0011761**	**.0204447**	**.1769924**	**.4714426**	**.0139073**
Stddev	.060996	.0016523	.0001832	.0000696	.0066970	.0027324	.0004041
%RSD	.6716376	8.374961	15.57887	.3404844	3.783768	.5795911	2.905429
#1	9.036788	.0215610	.0011594	.0204005	.1773269	.4683696	.0135873
#2	9.057287	.0192726	.0013672	.0205250	.1701345	.4735987	.0143614
#3	9.151184	.0183523	.0010019	.0204087	.1835159	.4723594	.0137732

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166023BS Acquired: 1/23/2025 13:57:57 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS023 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2090108	.0247798	.1760272
Stddev	.0010547	.0009313	.0007775
%RSD	.5046190	3.758452	.4416856
#1	.2078011	.0237053	.1754695
#2	.2094937	.0252802	.1756968
#3	.2097376	.0253541	.1769153

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3407.106	70296.50	9820.680	2430.233	4222.992
Stddev	12.113	78.97	59.894	10.289	13.646
%RSD	.3555247	.1123388	.6098737	.4233597	.3231403
#1	3402.302	70373.97	9752.869	2431.544	4220.455
#2	3420.885	70216.11	9842.816	2419.351	4237.729
#3	3398.133	70299.41	9866.354	2439.803	4210.793

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166022BL Acquired: 1/23/2025 14:02:01 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS022 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000055	.0000935	-.001365	.0005970	.0005426	.0007161	-.002285
Stddev	.0045307	.0014599	.001504	.0006208	.0004204	.0106675	.000878
%RSD	82705.28	1561.917	110.2305	103.9874	77.46366	1489.762	38.40292
#1	.0040847	.0007650	-.002179	.0013116	.0008599	.0129104	-.002910
#2	.0008025	-.001581	.000371	.0001912	.0000659	-.006888	-.002663
#3	-.004871	.001097	-.002287	.0002882	.0007022	-.003875	-.001282

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000021	-.000018	-.003995	.0005541	-.000055	.0026007	.0012225
Stddev	.000041	.000037	.004396	.0003467	.000221	.0021374	.0043057
%RSD	191.3966	201.9807	110.0202	62.56788	403.5667	82.18320	352.2093
#1	.000013	-.000008	-.007550	.0009403	.000018	.0035846	-.000490
#2	-.000066	-.000059	.000920	.0004522	.000121	.0001486	-.001963
#3	-.000010	.000012	-.005356	.0002697	-.000303	.0040690	.006121

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000253	.0090145	.0000565	-.000188	.0802748	.0003785	-.000273
Stddev	.0002026	.0057944	.0001862	.000187	.1524268	.0014047	.000975
%RSD	800.4214	64.27814	329.4457	99.43768	189.8813	371.1081	357.7268
#1	.0001411	.0038521	.0002709	-.000030	-.049257	.0002718	.000064
#2	.0001435	.0152817	-.000065	-.000395	.248240	.0018335	.000490
#3	-.000209	.0079098	-.000037	-.000141	.041842	-.000970	-.001372

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.024428	.0005066	.0000244	-.000347	-.000047	.0037189	.0002931
Stddev	.045063	.0005715	.0003047	.000118	.000941	.0028114	.0010229
%RSD	184.4738	112.8114	1248.914	34.11363	2020.630	75.59937	349.0230
#1	-.056894	.0000258	-.000327	-.000484	.000501	.0047742	.0008905
#2	-.043411	.0003556	.000220	-.000278	-.001134	.0005324	-.000888
#3	.027021	.0011384	.000180	-.000280	.000493	.0058499	.000877

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166022BL Acquired: 1/23/2025 14:02:01 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS022 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0001685	-.003535	.0000103
Stddev	.0003219	.001385	.0000481
%RSD	191.0183	39.18470	468.6782
#1	.0004561	-.003092	.0000235
#2	.0002287	-.002426	-.000043
#3	-.000179	-.005088	.000050

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3421.262	71651.73	10087.16	2468.846	4330.028
Stddev	8.743	133.87	19.32	6.642	2.902
%RSD	.2555490	.1868277	.1914892	.2690282	.0670153
#1	3411.748	71516.00	10089.53	2464.153	4327.359
#2	3423.095	71655.53	10066.77	2476.446	4329.607
#3	3428.944	71783.65	10105.18	2465.940	4333.117

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166022BS Acquired: 1/23/2025 14:06:11 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS022 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0169984**	**.0552613**	**.0174395**	**.0644293**	**.1104128**	**.3951891**	**.3670517**
Stddev	.0013184	.0002808	.0008674	.0012418	.0016016	.0060380	.0020482
%RSD	7.755870	.5081181	4.973538	1.927427	1.450520	1.527888	.5580107
#1	.0176453	.0555649	.0174005	.0645151	.1089514	.3911820	.3667232
#2	.0154815	.0552080	.0165923	.0656261	.1101621	.3922515	.3651877
#3	.0178682	.0550110	.0183257	.0631469	.1121249	.4021339	.3692443

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0105550**	**.0099309**	**9.615971**	**.0221323**	**.0978655**	**.0568689**	**.1993078**
Stddev	.0000285	.0000460	.041747	.0005462	.0001797	.0017638	.0073629
%RSD	.2701456	.4630371	.4341379	2.467824	.1836396	3.101472	3.694254
#1	.0105803	.0099810	9.643164	.0217026	.0978922	.0553485	.1984153
#2	.0105608	.0099210	9.567904	.0219475	.0976740	.0564556	.2070763
#3	.0105241	.0098907	9.636843	.0227470	.0980304	.0588026	.1924318

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0297912**	**8.708558**	**.0792468**	**.0191398**	**9.565364**	**.1035682**	**.1243604**
Stddev	.0002716	.037591	.0002049	.0001021	.521375	.0021005	.0023960
%RSD	.9115214	.4316591	.2585779	.5335573	5.450655	2.028144	1.926681
#1	.0295403	8.713204	.0792594	.0191819	9.751726	.1011431	.1243867
#2	.0300795	8.668860	.0790359	.0192142	9.967949	.1047496	.1219513
#3	.0297538	8.743610	.0794451	.0190234	8.976417	.1048120	.1267431

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.842726**	**.0181553**	**.0007199**	**.0199249**	**.1679778**	**.4686574**	**.0132502**
Stddev	.068131	.0012656	.0004191	.0002519	.0017313	.0009798	.0006814
%RSD	.7704727	6.970905	58.20863	1.264313	1.030651	.2090618	5.142691
#1	8.891801	.0182190	.0002585	.0202157	.1699748	.4694498	.0124658
#2	8.764939	.0168591	.0010769	.0197852	.1668998	.4675619	.0135892
#3	8.871438	.0193879	.0008243	.0197737	.1670589	.4689605	.0136956

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166022BS Acquired: 1/23/2025 14:06:11 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS022 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2066884	.0224123	.1731707
Stddev	.0007853	.0006332	.0008485
%RSD	.3799689	2.825270	.4899835
#1	.2075234	.0230023	.1736428
#2	.2065774	.0224913	.1721911
#3	.2059645	.0217433	.1736781

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3507.212	70837.78	9852.000	2465.686	4353.459
Stddev	4.883	166.61	37.666	4.580	5.626
%RSD	.1392184	.2351986	.3823228	.1857301	.1292222
#1	3503.174	70741.18	9825.160	2470.945	4349.563
#2	3505.823	71030.17	9835.781	2462.580	4350.906
#3	3512.639	70742.00	9895.059	2463.533	4359.909

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166021BL Acquired: 1/23/2025 14:10:14 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS021 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002657**	**.0006911**	**-.000393**	**.0023445**	**.0003437**	**.0452904**	**-.006094**
Stddev	.001552	.0028030	.001202	.0017046	.0008585	.0038928	.000972
%RSD	58.39307	405.5819	306.1408	72.70694	249.7595	8.595264	15.95741
#1	-.001001	-.001986	.000130	.0031085	.0011875	.0408043	-.004973
#2	-.004076	.003605	.000460	.0035336	-.000529	.0477790	-.006715
#3	-.002895	.000454	-.001767	.0003916	.000372	.0472879	-.006594

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000059**	**.0000361**	**.0041740**	**.0003146**	**-.000148**	**.0038453**	**-.000374**
Stddev	.000108	.0000889	.0146044	.0001070	.000190	.0004295	.006204
%RSD	181.9448	246.5719	349.8928	33.99707	128.4198	11.16877	1657.871
#1	.000053	-.000052	.0171349	.0004260	.000065	.0035035	.006782
#2	-.000161	.000035	-.011650	.0002127	-.000209	.0037051	-.004249
#3	-.000070	.000125	.007037	.0003052	-.000299	.0043274	-.003655

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003361**	**.0059208**	**-.000087**	**-.000427**	**.2495450**	**.0009581**	**.0013429**
Stddev	.0001908	.0054201	.000352	.000314	.0830578	.0020077	.0017153
%RSD	56.77769	91.54336	406.6833	73.51192	33.28370	209.5355	127.7337
#1	.0001807	-.000273	-.000493	-.000194	.1879708	-.000955	.0030770
#2	.0002785	.008238	.000098	-.000303	.3440115	.000781	-.000353
#3	.0005491	.009797	.000135	-.000785	.2166527	.003048	.001305

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.339617**	**.0024736**	**-.000604**	**-.000350**	**.0005534**	**.0064691**	**-.000280**
Stddev	.009107	.0010583	.000263	.000119	.0019798	.0007323	.000431
%RSD	2.681681	42.78484	43.61408	34.05011	357.7753	11.32066	154.0698
#1	-.349623	.0015031	-.000742	-.000357	.0027381	.0061125	.000204
#2	-.331811	.0023157	-.000769	-.000227	-.001122	.0073114	-.000621
#3	-.337417	.0036020	-.000300	-.000465	.000044	.0059833	-.000422

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166021BL Acquired: 1/23/2025 14:10:14 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS021 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000246**	**-.004830**	**-.000026**
Stddev	.000400	.001011	.000060
%RSD	162.5438	20.94131	229.7669
#1	-.000118	-.004301	-.000088
#2	.000074	-.005996	-.000022
#3	-.000694	-.004192	.000032

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3463.722**	**71866.38**	**9584.957**	**2474.268**	**4400.458**
Stddev	8.132	22.27	38.446	5.429	8.664
%RSD	.2347639	.0309852	.4011114	.2194157	.1968934
#1	3461.730	71845.77	9550.448	2474.826	4401.941
#2	3472.664	71890.00	9578.025	2479.397	4408.286
#3	3456.771	71863.38	9626.398	2468.582	4391.149

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166021BS Acquired: 1/23/2025 14:14:23 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS021 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0163858**	**.0535252**	**.0188896**	**.0658076**	**.1115390**	**.3697364**	**.3506167**
Stddev	.0025535	.0016862	.0017663	.0041356	.0007801	.0106048	.0026423
%RSD	15.58393	3.150207	9.350444	6.284391	.6993987	2.868195	.7536167
#1	.0170711	.0526655	.0205998	.0705430	.1106553	.3583347	.3475684
#2	.0185268	.0524422	.0189968	.0639734	.1118296	.3715690	.3522519
#3	.0135595	.0554679	.0170722	.0629062	.1121320	.3793054	.3520300

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0103804**	**.0100167**	**9.324920**	**.0220062**	**.0980469**	**.0561280**	**.1972193**
Stddev	.0001052	.0000400	.070405	.0002087	.0004107	.0009467	.0087648
%RSD	1.013722	.3996082	.7550253	.9484858	.4189230	1.686746	4.444188
#1	.0104470	.0099734	9.244497	.0222390	.0976032	.0562827	.1936219
#2	.0104352	.0100242	9.354835	.0219437	.0981238	.0569878	.1908255
#3	.0102591	.0100524	9.375428	.0218359	.0984138	.0551134	.2072104

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0286027**	**8.476212**	**.0799935**	**.0189241**	**9.348201**	**.1051250**	**.1144083**
Stddev	.0003094	.027368	.0005303	.0004798	.319951	.0008158	.0003939
%RSD	1.081678	.3228831	.6629335	2.535323	3.422598	.7760157	.3442928
#1	.0284338	8.453279	.0795273	.0183711	9.226228	.1048905	.1144190
#2	.0284146	8.468849	.0798827	.0191717	9.711199	.1060324	.1147967
#3	.0289598	8.506509	.0805704	.0192295	9.107176	.1044522	.1140091

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.521557**	**.0182733**	**.0005969**	**.0202087**	**.1706830**	**.4550246**	**.0137949**
Stddev	.094625	.0008143	.0002478	.0001572	.0034580	.0006580	.0006051
%RSD	1.110415	4.456294	41.51118	.7779871	2.025963	.1446034	4.386211
#1	8.422402	.0191822	.0004651	.0200443	.1668209	.4545768	.0131221
#2	8.610885	.0176103	.0004429	.0202241	.1734919	.4557800	.0142945
#3	8.531383	.0180273	.0008828	.0203576	.1717363	.4547170	.0139681

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166021BS Acquired: 1/23/2025 14:14:23 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS021 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2014118	.0219557	.1665185
Stddev	.0006653	.0006246	.0011179
%RSD	.3303389	2.844629	.6713464
#1	.2016910	.0226271	.1652577
#2	.2018920	.0213920	.1673888
#3	.2006523	.0218480	.1669090

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3413.722	71360.63	9793.788	2431.955	4238.212
Stddev	6.824	98.46	30.067	7.962	2.069
%RSD	.1998985	.1379749	.3070036	.3273739	.0488119
#1	3420.581	71391.09	9759.130	2436.853	4236.812
#2	3413.652	71440.26	9812.899	2436.244	4240.588
#3	3406.933	71250.54	9809.334	2422.769	4237.235

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166017BL Acquired: 1/23/2025 14:18:27 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS017 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002097**	**.0004760**	**-.001824**	**.0032180**	**-.000594**	**.0081967**	**-.002383**
Stddev	.001114	.0016741	.000950	.0016496	.001765	.0037375	.000472
%RSD	53.15288	351.7220	52.07821	51.26050	297.2192	45.59788	19.79328
#1	-.001185	.0012965	-.002920	.0017013	.000198	.0038813	-.002511
#2	-.003339	.0015814	-.001318	.0049743	.000636	.0103945	-.002778
#3	-.001767	-.001450	-.001234	.0029786	-.002616	.0103144	-.001861

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000024**	**-.000060**	**.0041442**	**.0003181**	**-.000065**	**.0054508**	**.0033757**
Stddev	.000082	.000073	.0055750	.0001818	.000252	.0037613	.0014565
%RSD	337.6213	121.9603	134.5246	57.16455	390.9078	69.00456	43.14489
#1	-.000054	.000009	.0105437	.0004339	.000184	.0026966	.0020610
#2	-.000088	-.000052	.0015494	.0001085	-.000056	.0039196	.0049413
#3	.000069	-.000137	.0003396	.0004118	-.000321	.0097362	.0031249

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002325**	**.0081933**	**-.000108**	**-.000401**	**-.229516**	**-.000179**	**.0000530**
Stddev	.0000590	.0091803	.000273	.000232	.134681	.001561	.0008061
%RSD	25.40226	112.0463	252.7108	57.94695	58.68050	872.0985	1521.182
#1	.0001739	.0015825	-.000409	-.000309	-.259521	-.000405	-.000498
#2	.0002315	.0186752	-.000039	-.000228	-.346663	-.001614	-.000322
#3	.0002920	.0043223	.000124	-.000665	-.082363	.001482	.000978

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.225563**	**.0017915**	**-.000918**	**-.000044**	**.0013366**	**.0031128**	**.0002260**
Stddev	.016177	.0012357	.000342	.000199	.0014611	.0024070	.0008939
%RSD	7.171632	68.97625	37.27065	452.5720	109.3162	77.32629	395.5902
#1	-.208449	.0004041	-.001077	-.000091	.0030121	.0057937	-.000736
#2	-.240602	.0021965	-.000525	-.000215	.0003275	.0024075	.001031
#3	-.227637	.0027738	-.001151	.000174	.0006701	.0011372	.000383

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166017BL Acquired: 1/23/2025 14:18:27 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS017 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005293	-.005058	.0000261
Stddev	.0008536	.001719	.0000442
%RSD	161.2621	33.99157	169.3079
#1	.0014877	-.007043	.0000045
#2	.0002497	-.004034	-.000003
#3	-.000149	-.004098	.000077

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3405.713	71239.75	9922.698	2424.728	4305.045
Stddev	4.382	301.80	75.694	8.288	7.545
%RSD	.1286668	.4236350	.7628380	.3418177	.1752566
#1	3403.882	70978.16	10001.39	2417.971	4298.091
#2	3410.714	71171.14	9916.28	2422.237	4313.067
#3	3402.544	71569.94	9850.41	2433.976	4303.978

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166017BS Acquired: 1/23/2025 14:22:36 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS017 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0172776	.0561467	.0188350	.0699588	.1124003	.3755640	.3722948
Stddev	.0033053	.0008520	.0007150	.0006224	.0013448	.0095188	.0027698
%RSD	19.13079	1.517510	3.795920	.8896529	1.196438	2.534533	.7439880
#1	.0145878	.0558825	.0194126	.0692438	.1120174	.3755358	.3715194
#2	.0162775	.0570996	.0190571	.0703797	.1138950	.3850968	.3699952
#3	.0209675	.0554581	.0180354	.0702527	.1112885	.3660593	.3753696

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0105838	.0101136	9.774966	.0226366	.0996519	.0570336	.2084570
Stddev	.0000751	.0000498	.029181	.0002333	.0002607	.0015780	.0085136
%RSD	.7092251	.4922485	.2985259	1.030777	.2615605	2.766842	4.084106
#1	.0105354	.0100780	9.771181	.0224202	.0995309	.0588427	.2022804
#2	.0106703	.0101705	9.747863	.0228838	.0994738	.0559405	.2181687
#3	.0105457	.0100923	9.805855	.0226057	.0999511	.0563177	.2049220

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0304118	8.871448	.0806247	.0192386	9.787430	.1082988	.1195694
Stddev	.0003070	.037863	.0004911	.0001234	.188496	.0008432	.0052928
%RSD	1.009392	.4267963	.6090604	.6414991	1.925897	.7786049	4.426549
#1	.0304217	8.903483	.0800753	.0193810	9.749082	.1073435	.1150364
#2	.0301000	8.829664	.0807779	.0191626	9.621058	.1089397	.1182858
#3	.0307137	8.881198	.0810209	.0191721	9.992152	.1086131	.1253859

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.020726	.0207976	.0002936	.0205031	.1718021	.4722068	.0133745
Stddev	.058565	.0016542	.0003109	.0001716	.0031340	.0023334	.0001802
%RSD	.6492236	7.953619	105.9032	.8371274	1.824180	.4941417	1.347183
#1	9.028479	.0221463	.0005823	.0203084	.1723682	.4748481	.0134126
#2	8.958671	.0212946	.0003339	.0205683	.1746144	.4704254	.0131783
#3	9.075028	.0189519	-.000036	.0206326	.1684237	.4713469	.0135326

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166017BS Acquired: 1/23/2025 14:22:36 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS017 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2089675	.0228698	.1765612
Stddev	.0017266	.0007950	.0008458
%RSD	.8262309	3.476266	.4790556
#1	.2102032	.0220727	.1762587
#2	.2069948	.0236627	.1759083
#3	.2097046	.0228739	.1775167

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3479.986	70736.85	9863.955	2429.972	4329.761
Stddev	1.007	193.66	54.593	12.524	2.958
%RSD	.0289486	.2737687	.5534595	.5154032	.0683066
#1	3479.277	70553.82	9806.251	2419.485	4331.319
#2	3479.541	70939.62	9870.828	2443.839	4326.351
#3	3481.139	70717.10	9914.786	2426.591	4331.614

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166016BL Acquired: 1/23/2025 14:26:39 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS016 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003102**	**.0001301**	**-.001264**	**.0020449**	**-.000495**	**-.004461**	**-.004293**
Stddev	.000606	.0015247	.000436	.0034918	.001461	.007946	.000858
%RSD	19.53831	1172.020	34.46664	170.7592	295.0857	178.1299	19.99725
#1	-.002990	.0011051	-.001491	.0060669	-.001549	.000898	-.004912
#2	-.003757	-.001627	-.001538	-.000211	-.001109	-.000690	-.003313
#3	-.002560	.000912	-.000761	.000279	.001172	-.013591	-.004653

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000037**	**-.000025**	**.0052332**	**.0005544**	**-.000059**	**.0028129**	**.0710544**
Stddev	.000028	.000076	.0070019	.0001418	.000212	.0013113	.0071460
%RSD	75.92741	305.2073	133.7971	25.57864	356.9853	46.61907	10.05706
#1	-.000069	.000044	.0079981	.0006281	-.000124	.0033544	.0680561
#2	-.000029	-.000012	-.002729	.0006441	-.000231	.0037667	.0658960
#3	-.000015	-.000106	.010430	.0003909	.000177	.0013175	.0792110

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004585**	**.0143345**	**-.000452**	**-.000376**	**-.076157**	**.0010381**	**.0012450**
Stddev	.0001128	.0021681	.000248	.000116	.406863	.0006184	.0021534
%RSD	24.61194	15.12522	54.86450	30.93654	534.2402	59.56941	172.9726
#1	.0003981	.0124782	-.000168	-.000295	-.543021	.0016075	.0035339
#2	.0003887	.0138079	-.000564	-.000509	.202730	.0003802	.0009420
#3	.0005887	.0167174	-.000625	-.000323	.111820	.0011266	-.000741

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.246214**	**.0010119**	**-.001505**	**-.000266**	**.0017328**	**.0059196**	**.0004813**
Stddev	.051488	.0003645	.000381	.000450	.0011582	.0042667	.0003869
%RSD	20.91169	36.02421	25.29973	169.2760	66.84158	72.07702	80.38699
#1	-.285594	.0006561	-.001718	-.000397	.0004826	.0054765	.0000823
#2	-.265097	.0009950	-.001066	-.000636	.0027693	.0103906	.0008549
#3	-.187951	.0013846	-.001732	.000235	.0019465	.0018918	.0005068

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166016BL Acquired: 1/23/2025 14:26:39 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS016 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0002170	-.005109	.0000429
Stddev	.0008867	.001080	.0000037
%RSD	408.6510	21.13396	8.730894
#1	.0011225	-.004558	.0000411
#2	.0001780	-.006353	.0000403
#3	-.000650	-.004416	.0000472

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3434.716	71450.58	9787.099	2464.427	4327.177
Stddev	3.541	153.31	58.423	8.407	6.544
%RSD	.1030804	.2145615	.5969364	.3411420	.1512325
#1	3433.743	71416.38	9730.125	2456.553	4320.099
#2	3438.641	71317.27	9784.301	2463.447	4333.007
#3	3431.763	71618.10	9846.870	2473.281	4328.427

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166016BS Acquired: 1/23/2025 14:30:49 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS016 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0194051**	**.0537599**	**.0189938**	**.0671803**	**.1116809**	**.3713594**	**.3723599**
Stddev	.0010566	.0018539	.0005687	.0016991	.0006249	.0080897	.0015248
%RSD	5.445149	3.448476	2.994158	2.529163	.5595064	2.178406	.4095103
#1	.0206151	.0520060	.0183696	.0685156	.1112128	.3752980	.3720358
#2	.0186644	.0535740	.0194826	.0652678	.1123905	.3620546	.3710231
#3	.0189359	.0556998	.0191292	.0677574	.1114394	.3767256	.3740207

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0102948**	**.0101649**	**9.657610**	**.0221114**	**.0996117**	**.0554872**	**.2065137**
Stddev	.0000730	.0000640	.044858	.0004293	.0004407	.0015009	.0063557
%RSD	.7089409	.6293174	.4644820	1.941592	.4424224	2.704850	3.077637
#1	.0103751	.0101171	9.627524	.0219762	.0997508	.0571845	.1991773
#2	.0102769	.0101401	9.636138	.0217660	.0991183	.0549417	.2103490
#3	.0102325	.0102376	9.709168	.0225921	.0999662	.0543354	.2100149

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0303376**	**8.802490**	**.0810574**	**.0188740**	**9.514111**	**.1075629**	**.1205364**
Stddev	.0005575	.056480	.0003747	.0004495	.055866	.0002950	.0019887
%RSD	1.837503	.6416422	.4623226	2.381561	.5871937	.2742192	1.649860
#1	.0303071	8.801049	.0806407	.0185445	9.452715	.1072349	.1221761
#2	.0297960	8.746744	.0813669	.0193860	9.561953	.1078064	.1183243
#3	.0309096	8.859677	.0811646	.0186913	9.527665	.1076473	.1211089

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.905787**	**.0191517**	**-.000199**	**.0204080**	**.1840506**	**.4698952**	**.0145630**
Stddev	.016967	.0006948	.000340	.0000815	.0030751	.0008950	.0008014
%RSD	.1905201	3.627895	171.4080	.3992852	1.670810	.1904647	5.502750
#1	8.900082	.0198242	.000069	.0204548	.1866606	.4700090	.0154452
#2	8.924872	.0184366	-.000581	.0203139	.1806606	.4689487	.0138800
#3	8.892408	.0191942	-.000084	.0204553	.1848305	.4707278	.0143639

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166016BS Acquired: 1/23/2025 14:30:49 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS016 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2068325	.0233864	.1747259
Stddev	.0010413	.0004585	.0006450
%RSD	.5034257	1.960517	.3691427
#1	.2075218	.0229518	.1749968
#2	.2056347	.0238655	.1739896
#3	.2073410	.0233420	.1751912

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3410.987	71898.38	9998.366	2459.913	4206.551
Stddev	1.798	37.62	47.819	6.070	6.375
%RSD	.0527068	.0523299	.4782667	.2467677	.1515466
#1	3409.133	71883.63	9994.163	2461.214	4213.234
#2	3412.723	71870.36	9952.788	2453.298	4205.882
#3	3411.106	71941.14	10048.15	2465.227	4200.537

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166015BL Acquired: 1/23/2025 14:34:54 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS015 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005471**	**.0012586**	**-.000916**	**.0017800**	**.0006760**	**.0043912**	**-.003102**
Stddev	.000709	.0027042	.000557	.0019505	.0005988	.0083985	.001418
%RSD	12.96646	214.8469	60.80186	109.5797	88.58785	191.2576	45.71633
#1	-.006240	.0042501	-.000273	.0039733	-.000015	-.005300	-.002719
#2	-.004842	.0005379	-.001224	.0011266	.001032	.009556	-.001915
#3	-.005331	-.001012	-.001252	.0002401	.001011	.008917	-.004672

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000053**	**-.000010**	**.0134420**	**.0001630**	**-.000046**	**.0016266**	**.0078582**
Stddev	.0000717	.000029	.0022206	.0004965	.000260	.0016953	.0035170
%RSD	1360.193	292.0183	16.52022	304.6420	569.0455	104.2247	44.75579
#1	.0000846	-.000014	.0158904	.0007319	-.000039	-.000010	.0071058
#2	-.000055	.000021	.0115581	-.000183	.000211	.003375	.0047783
#3	-.000014	-.000037	.0128774	-.000060	-.000309	.001515	.0116906

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002692**	**.0180144**	**.0001197**	**-.000436**	**.2226044**	**.0008853**	**.0012630**
Stddev	.0003967	.0051549	.0002123	.000273	.1570845	.0010173	.0020749
%RSD	147.3478	28.61566	177.4117	62.61459	70.56665	114.9180	164.2780
#1	.0001145	.0229384	.0003449	-.000356	.1030909	.0014438	-.000034
#2	-.000027	.0126560	.0000911	-.000740	.1641964	-.000289	.000167
#3	.000720	.0184486	-.000077	-.000212	.4005260	.001501	.003656

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.057508**	**.0014114**	**-.001585**	**-.000125**	**.0042190**	**.0047456**	**-.000076**
Stddev	.015122	.0025161	.000094	.000228	.0015720	.0022805	.000596
%RSD	26.29529	178.2680	5.902370	182.9825	37.25977	48.05513	783.6016
#1	-.040451	-.000917	-.001651	.000056	.0024390	.0035148	.000520
#2	-.062802	.001070	-.001478	-.000050	.0054170	.0033450	-.000077
#3	-.069273	.004081	-.001626	-.000381	.0048009	.0073771	-.000671

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166015BL Acquired: 1/23/2025 14:34:54 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS015 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0001869	-.004659	.0000149
Stddev	.0004931	.001735	.0000713
%RSD	263.8584	37.24216	479.1031
#1	.0007120	-.005526	.0000933
#2	.0001152	-.005789	-.000003
#3	-.000266	-.002661	-.000046

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3414.467	71363.82	9956.623	2461.556	4310.847
Stddev	1.796	212.61	52.853	12.890	.871
%RSD	.0526016	.2979211	.5308321	.5236531	.0201960
#1	3413.240	71608.42	9898.150	2476.232	4310.288
#2	3413.633	71259.70	10001.00	2452.072	4310.402
#3	3416.529	71223.34	9970.72	2456.363	4311.850

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166015BS Acquired: 1/23/2025 14:39:03 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS015 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0176078**	**.0547514**	**.0200529**	**.0698499**	**.1170946**	**.3819967**	**.3869166**
Stddev	.0030026	.0016781	.0007699	.0027455	.0016555	.0084178	.0008230
%RSD	17.05239	3.065016	3.839305	3.930546	1.413820	2.203626	.2126978
#1	.0151078	.0530382	.0203419	.0673482	.1158027	.3786776	.3878668
#2	.0167775	.0563921	.0206365	.0727871	.1165204	.3915681	.3864519
#3	.0209381	.0548240	.0191803	.0694143	.1189608	.3757445	.3864310

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0107537**	**.0105375**	**10.09373**	**.0229856**	**.1027111**	**.0593015**	**.2102215**
Stddev	.0000477	.0000631	.01799	.0001421	.0006634	.0019560	.0019654
%RSD	.4432266	.5985198	.1782384	.6181082	.6459066	3.298364	.9349078
#1	.0108077	.0104648	10.08874	.0231303	.1025554	.0586851	.2104403
#2	.0107172	.0105703	10.11369	.0228463	.1021394	.0577280	.2081558
#3	.0107363	.0105773	10.07876	.0229802	.1034385	.0614914	.2120683

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0315247**	**9.192203**	**.0837635**	**.0198879**	**10.23520**	**.1111610**	**.1265284**
Stddev	.0002839	.042760	.0004738	.0004910	.23987	.0007909	.0026697
%RSD	.9007372	.4651802	.5656196	2.468836	2.343624	.7115009	2.109958
#1	.0318022	9.239183	.0835010	.0204105	10.27199	.1114528	.1234680
#2	.0315372	9.181872	.0834790	.0198170	10.45456	.1102657	.1283794
#3	.0312347	9.155556	.0843104	.0194362	9.97906	.1117646	.1277377

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.317957**	**.0199341**	**-.000043**	**.0207827**	**.1805460**	**.4846146**	**.0151881**
Stddev	.085210	.0001998	.000616	.0000683	.0021114	.0019395	.0003695
%RSD	.9144708	1.002376	1437.095	.3285786	1.169466	.4002070	2.432725
#1	9.226396	.0197575	.000367	.0208438	.1825473	.4866391	.0150743
#2	9.394934	.0198939	-.000751	.0207954	.1783394	.4827731	.0148888
#3	9.332540	.0201510	.000255	.0207090	.1807514	.4844317	.0156011

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: PB166015BS Acquired: 1/23/2025 14:39:03 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS015 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2152836	.0245774	.1824973
Stddev	.0011946	.0008095	.0006549
%RSD	.5549038	3.293734	.3588667
#1	.2166394	.0245138	.1822278
#2	.2148262	.0254168	.1832440
#3	.2143853	.0238016	.1820202

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3440.191	70901.41	9957.330	2444.725	4254.258
Stddev	6.607	246.58	73.572	10.278	10.792
%RSD	.1920570	.3477829	.7388734	.4204256	.2536720
#1	3445.205	70641.81	9874.850	2433.319	4265.144
#2	3442.663	70929.93	9980.942	2453.269	4254.068
#3	3432.704	71132.50	10016.20	2447.587	4243.563

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-01 Acquired: 1/23/2025 14:43:04 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0550547	-.004200	.2826993	.0311052	.0143010	59.17893	1.838108
Stddev	.0018017	.001255	.0010565	.0028684	.0004571	.01345	.003736
%RSD	3.272542	29.88180	.3737019	9.221681	3.196039	.0227301	.2032688
#1	.0536558	-.002943	.2828331	.0298916	.0140325	59.16533	1.833795
#2	.0570877	-.005454	.2836824	.0290431	.0140418	59.17925	1.840377
#3	.0544205	-.004204	.2815823	.0343810	.0148288	59.19222	1.840151

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042016	.0048077	89.81482	.1093096	.1126033	.1331791	144.0879
Stddev	.0000230	.0001402	.16606	.0000657	.0002095	.0010006	.1770
%RSD	.5473551	2.916843	.1848957	.0601042	.1860453	.7512988	.1228582
#1	.0041752	.0048754	89.68769	.1092728	.1124694	.1341501	143.9340
#2	.0042175	.0049013	90.00271	.1093855	.1124957	.1332359	144.2813
#3	.0042119	.0046465	89.75406	.1092705	.1128447	.1321514	144.0483

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.099776	39.76832	.1000792	.0042144	-.326103	.2142272	.4972100
Stddev	.005727	.09816	.0008862	.0000920	.090199	.0021433	.0035612
%RSD	.1122921	.2468244	.8855361	2.183349	27.65950	1.000486	.7162334
#1	5.093178	39.65610	.1007382	.0042344	-.387685	.2117747	.5005869
#2	5.103455	39.83822	.1004278	.0041141	-.368056	.2157409	.4975535
#3	5.102696	39.81063	.0990717	.0042948	-.222570	.2151659	.4934895

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.631788	6.435597	.6042693	.0062168	2.156762	8.661281	.0065214
Stddev	.057139	.020521	.0014893	.0002050	.004966	.006620	.0008641
%RSD	.7487037	.3188744	.2464576	3.296838	.2302439	.0764363	13.24982
#1	7.638619	6.458258	.6032072	.0064526	2.158667	8.659810	.0063150
#2	7.571540	6.430266	.6059716	.0061159	2.151126	8.655520	.0074700
#3	7.685205	6.418267	.6036292	.0060818	2.160494	8.668513	.0057792

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-01 Acquired: 1/23/2025 14:43:04 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.209638	.0443825	.1596078
Stddev	.000919	.0002916	.0000898
%RSD	.0759408	.6571053	.0562655
#1	1.208691	.0442421	.1595080
#2	1.209700	.0447178	.1596333
#3	1.210525	.0441876	.1596821

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3521.619	72729.45	10827.14	2518.490	3957.091
Stddev	5.284	58.70	12.73	2.318	2.796
%RSD	.1500377	.0807150	.1175428	.0920234	.0706588
#1	3525.937	72748.77	10829.26	2518.301	3959.918
#2	3515.727	72663.52	10838.67	2520.896	3954.327
#3	3523.193	72776.06	10813.49	2516.272	3957.028

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-02 Acquired: 1/23/2025 14:47:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0478714	-.007655	.3299980	.0185788	.0120289	38.47510
Stddev	.0020431	.000955	.0041124	.0033946	.0007158	.08194
%RSD	4.267958	12.48013	1.246187	18.27168	5.950590	.2129569
#1	.0471761	-.008113	.3345221	.0218184	.0122933	38.55589
#2	.0462667	-.006556	.3289855	.0150478	.0112185	38.47735
#3	.0501714	-.008294	.3264864	.0188701	.0125748	38.39207

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.004667	.0037614	.0107999	468.5310	.1430904	.0621335
Stddev	.007811	.0000768	.0002094	4.4551	.0007980	.0002835
%RSD	.3896501	2.043073	1.938614	.9508733	.5577116	.4562302
#1	1.997673	.0036740	.0110367	466.3717	.1426211	.0623886
#2	2.003232	.0037918	.0107238	465.5669	.1426382	.0621836
#3	2.013096	.0038184	.0106393	473.6543	.1440118	.0618283

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3316986	96.14679	8.976019	51.11094	.1107375	.0035038
Stddev	.0013219	.34797	.026194	.09507	.0012923	.0000991
%RSD	.3985274	.3619190	.2918251	.1860039	1.166987	2.827926
#1	.3315246	96.37851	8.948902	51.16546	.1117966	.0035707
#2	.3304723	96.31522	8.977972	51.16621	.1111182	.0033900
#3	.3330989	95.74666	9.001182	51.00117	.1092976	.0035508

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.037144	.1492158	1.407189	14.67366	F 30.65787	.5240787
Stddev	.454809	.0010165	.010536	.02398	.02920	.0016650
%RSD	1224.442	.6812012	.7487014	.1634082	.0952342	.3177007
#1	-.061003	.1503587	1.411356	14.68694	30.66892	.5251905
#2	-.479554	.1484132	1.415004	14.68807	30.67993	.5248811
#3	.429125	.1488754	1.395207	14.64598	30.62476	.5221644

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-02 Acquired: 1/23/2025 14:47:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077300	F 13.35550	8.375033	.0103453	.9244439	.0315285
Stddev	.0007468	.04019	.026279	.0015113	.0002892	.0015205
%RSD	9.660555	.3009364	.3137721	14.60829	.0312844	4.822670
#1	.0070852	13.35031	8.352625	.0089633	.9243992	.0300737
#2	.0075565	13.39803	8.368518	.0119591	.9241797	.0331071
#3	.0085482	13.31816	8.403956	.0101135	.9247529	.0314048

Elem	Sr4077
Units	ppm
Avg	.7994720
Stddev	.0018525
%RSD	.2317125
#1	.7975927
#2	.7995268
#3	.8012965

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3321.472	70445.98	10639.69	2367.651	3622.190
Stddev	7.085	232.13	42.61	13.104	7.745
%RSD	.2133094	.3295079	.4004852	.5534804	.2138328
#1	3315.664	70222.62	10616.90	2352.761	3613.785
#2	3329.365	70685.98	10688.85	2372.763	3629.040
#3	3319.385	70429.34	10613.32	2377.429	3623.744

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-03 Acquired: 1/23/2025 14:51:06 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0631499**	**-.006673**	**.8174429**	**.0422818**	**.0414095**	**55.60346**
Stddev	.0020812	.001749	.0053954	.0018112	.0019772	.47045
%RSD	3.295632	26.20278	.6600312	4.283706	4.774676	.8460856
#1	.0655143	-.007643	.8234836	.0438181	.0402763	55.51169
#2	.0615953	-.007721	.8157428	.0427426	.0402597	56.11303
#3	.0623402	-.004654	.8131023	.0402847	.0436925	55.18565

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.27154**	**.0047263**	**.0098552**	**100.2291**	**.1411923**	**.1049084**
Stddev	.20063	.0000313	.0001700	.8039	.0012471	.0005730
%RSD	1.041089	.6628523	1.724546	.8020300	.8832732	.5461587
#1	19.39097	.0047191	.0099643	100.0576	.1404774	.1048590
#2	19.38375	.0046992	.0096593	101.1049	.1426324	.1055045
#3	19.03991	.0047606	.0099418	99.5249	.1404673	.1043617

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3003529**	**201.7417**	**5.764328**	**38.70866**	**.1333783**	**.0046396**
Stddev	.0052417	1.7272	.043625	.36221	.0009621	.0003777
%RSD	1.745193	.8561351	.7568152	.9357457	.7213225	8.141120
#1	.3049556	201.4458	5.758835	38.52253	.1341001	.0049314
#2	.2946475	203.5977	5.810439	39.12609	.1337486	.0042130
#3	.3014555	200.1816	5.723709	38.47735	.1322860	.0047746

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3503730**	**.2658840**	**1.117946**	**8.934306**	F **10.24930**	**.8378864**
Stddev	.2156869	.0031337	.014319	.169604	.07284	.0100781
%RSD	61.55922	1.178586	1.280793	1.898350	.7106492	1.202806
#1	.5020123	.2676481	1.120007	8.858543	10.32668	.8372521
#2	.1034540	.2622659	1.131122	9.128586	10.23915	.8482668
#3	.4456527	.2677380	1.102708	8.815787	10.18207	.8281404

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-03 Acquired: 1/23/2025 14:51:06 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0107576	F 11.69708	7.671128	.0137520	1.148519	.0417966
Stddev	.0002494	.07007	.109552	.0010612	.019013	.0014712
%RSD	2.318561	.5990450	1.428111	7.717069	1.655452	3.520012
#1	.0108185	11.76958	7.724971	.0127021	1.161844	.0405737
#2	.0109710	11.69194	7.545073	.0137296	1.126745	.0434293
#3	.0104834	11.62972	7.743339	.0148243	1.156967	.0413867

Elem	Sr4077
Units	ppm
Avg	.2659727
Stddev	.0021413
%RSD	.8050815
#1	.2661830
#2	.2680011
#3	.2637341

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3703.745	78217.15	11745.40	2668.317	3852.720
Stddev	7.725	775.58	154.94	26.750	10.362
%RSD	.2085682	.9915772	1.319154	1.002497	.2689564
#1	3706.018	78740.20	11721.41	2676.210	3843.480
#2	3695.138	77326.07	11910.93	2638.509	3850.757
#3	3710.078	78585.18	11603.85	2690.233	3863.923

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-04 Acquired: 1/23/2025 14:55:11 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0113041**	**-.000090**	**.0216292**	**.0133323**	**.0062716**	**10.85647**	**.1765500**
Stddev	.0020789	.000215	.0008952	.0017965	.0005906	.05499	.0012524
%RSD	18.39034	238.4079	4.139005	13.47476	9.416400	.5064777	.7093595
#1	.0100699	-.000087	.0217651	.0113092	.0066748	10.91099	.1776676
#2	.0137043	.000124	.0206737	.0139467	.0055937	10.80103	.1767860
#3	.0101382	-.000307	.0224487	.0147409	.0065463	10.85739	.1751964

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006210**	**.0011898**	**5.650783**	**.0388558**	**.0296146**	**.0127702**	**51.21041**
Stddev	.0000791	.0001113	.027089	.0006273	.0001066	.0020038	.10889
%RSD	12.73122	9.351604	.4793760	1.614424	.3600163	15.69105	.2126336
#1	.0005390	.0012972	5.681056	.0382371	.0297080	.0133738	51.30736
#2	.0006272	.0011972	5.642463	.0394913	.0294984	.0144027	51.09260
#3	.0006967	.0010751	5.628831	.0388389	.0296374	.0105340	51.23128

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.096758**	**4.997155**	**.0696874**	**.0011134**	**.1140398**	**.0778758**	**.0830305**
Stddev	.005459	.026681	.0006782	.0000852	.3511092	.0018222	.0029409
%RSD	.4977338	.5339149	.9731667	7.656437	307.8832	2.339923	3.542003
#1	1.102883	5.021234	.0702952	.0010203	.2068048	.0758030	.0802492
#2	1.094989	4.968472	.0698111	.0011876	.4094520	.0785990	.0861086
#3	1.092403	5.001761	.0689558	.0011324	-.274138	.0792254	.0827337

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.071937**	**.9685942**	**.2073834**	**.0008725**	**.1764379**	**1.917551**	**.0034527**
Stddev	.046252	.0093790	.0005389	.0002471	.0016552	.011039	.0006620
%RSD	64.29538	.9683050	.2598579	28.31699	.9381045	.5757032	19.17444
#1	-.111386	.9793210	.2078913	.0006998	.1782868	1.906211	.0039327
#2	-.083390	.9645217	.2074409	.0011555	.1750941	1.928263	.0026974
#3	-.021034	.9619398	.2068181	.0007623	.1759329	1.918180	.0037279

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-04 Acquired: 1/23/2025 14:55:11 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.042147	.0058917	.0187991
Stddev	.003316	.0020038	.0000896
%RSD	.3181608	34.01116	.4765256
#1	1.038383	.0069478	.0188618
#2	1.044635	.0071466	.0188390
#3	1.043424	.0035807	.0186965

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3586.810	72978.74	10371.39	2506.407	4376.825
Stddev	19.552	204.96	61.45	6.996	21.842
%RSD	.5451146	.2808466	.5925333	.2791357	.4990467
#1	3564.251	73139.68	10442.32	2511.457	4352.610
#2	3597.321	73048.56	10334.06	2509.344	4382.824
#3	3598.859	72748.00	10337.80	2498.421	4395.041

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV002 Acquired: 1/23/2025 14:59:13 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV002 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.917210**	**4.883095**	**24.41683**	**4.925874**	**4.993375**	**404.9441**
Stddev	.040311	.127852	.21411	.047874	.040996	2.4561
%RSD	.8197869	2.618259	.8769133	.9718922	.8210030	.6065172
#1	4.963749	5.030105	24.65730	4.980348	5.040625	402.3901
#2	4.893223	4.797876	24.24683	4.906781	4.972249	405.1535
#3	4.894658	4.821303	24.34638	4.890492	4.967252	407.2888

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.11869**	**.4867052**	**2.465952**	**402.6176**	**15.51464**	**2.472248**
Stddev	.16201	.0033710	.025336	3.0946	.04169	.020316
%RSD	1.601049	.6926073	1.027443	.7686145	.2686971	.8217593
#1	9.95601	.4875697	2.494796	400.2465	15.47163	2.495589
#2	10.12007	.4829861	2.447295	406.1183	15.55487	2.458538
#3	10.28001	.4895596	2.455763	401.4881	15.51742	2.462618

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.64081**	**408.7349**	**15.11466**	**402.5095**	**2.467513**	**1.286772**
Stddev	.03718	2.2110	.07459	2.1466	.021853	.000501
%RSD	.2539737	.5409331	.4934849	.5333059	.8856446	.0389256
#1	14.68302	407.6028	15.09731	400.8550	2.492110	1.287197
#2	14.61287	411.2827	15.19640	404.9351	2.450333	1.286220
#3	14.62656	407.3193	15.05028	401.7383	2.460097	1.286900

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**389.6309**	**2.444126**	**15.57422**	**157.5563**	**4.976466**	F **5.826106**
Stddev	1.6066	.006318	.04528	.8842	.039342	.013172
%RSD	.4123414	.2584866	.2907306	.5612047	.7905684	.2260775
#1	391.3184	2.446032	15.52206	157.2571	5.021853	5.827013
#2	388.1197	2.437075	15.60331	158.5513	4.955465	5.812504
#3	389.4548	2.449272	15.59730	156.8605	4.952080	5.838801

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV002 Acquired: 1/23/2025 14:59:13 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV002 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.912942**	**4.990380**	**4.898158**	**4.960546**	**4.886607**	**5.205893**
Stddev	.043048	.053529	.017088	.050108	.009239	.041156
%RSD	.8762260	1.072642	.3488611	1.010135	.1890746	.7905688
#1	4.962605	5.050841	4.905447	5.017324	4.895380	5.207598
#2	4.889951	4.949027	4.878634	4.922512	4.876963	5.246170
#3	4.886271	4.971271	4.910392	4.941803	4.887478	5.163911

Elem	Sr4077
Units	ppm
Avg	**5.133935**
Stddev	.023284
%RSD	.4535228
#1	5.107072
#2	5.148322
#3	5.146411

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2759.850**	**59946.05**	**9339.502**	**2043.408**	**3206.778**
Stddev	17.642	143.47	59.420	8.846	24.790
%RSD	.6392317	.2393387	.6362206	.4329278	.7730459
#1	2739.559	60101.47	9338.769	2051.794	3179.148
#2	2771.552	59818.66	9399.285	2044.265	3227.072
#3	2768.440	59918.01	9280.453	2034.163	3214.114

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB002 Acquired: 1/23/2025 15:03:32 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB002 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000410**	**.0004482**	**-.000657**	**.0003513**	**.0004431**	**.0065234**	**-.000222**
Stddev	.000472	.0013636	.001256	.0011592	.0008543	.0020618	.000939
%RSD	115.2707	304.2808	190.9831	329.9712	192.7846	31.60557	421.9089
#1	-.000788	-.001090	-.002100	.0016859	-.000392	.0059051	.000462
#2	.000120	.000925	-.000058	-.000406	.001316	.0048415	.000164
#3	-.000561	.001510	.000186	-.000226	.000405	.0088235	-.001293

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000094**	**-.000012**	**.0089253**	**.0008321**	**.0001793**	**.0023334**	**.0120052**
Stddev	.0000511	.000100	.0100207	.0002906	.0000421	.0022215	.0018571
%RSD	545.2002	811.3635	112.2736	34.92708	23.46903	95.20368	15.46892
#1	-.000023	.000049	.0177318	.0010705	.0002240	.0008284	.0130690
#2	.000068	-.000127	-.001978	.0009175	.0001404	.0012869	.0130858
#3	-.000017	.000042	.011022	.0005083	.0001735	.0048848	.0098609

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009380**	**.0295530**	**.0001535**	**-.000596**	**.0737748**	**.0007069**	**.0013347**
Stddev	.0002441	.0060693	.0002012	.000100	.4322862	.0009768	.0006670
%RSD	26.02475	20.53713	131.0650	16.71292	585.9538	138.1728	49.97258
#1	.0008468	.0262319	.0000401	-.000599	-.425148	.0017482	.0017097
#2	.0012146	.0258690	.0000346	-.000693	.336599	-.000189	.0005646
#3	.0007526	.0365581	.0003858	-.000494	.309873	.000562	.0017297

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1035004**	**.0005484**	**.0050323**	**.0000130**	**.0011975**	**.0029914**	**-.000002**
Stddev	.0147446	.0016906	.0003971	.0003509	.0051496	.0022305	.000432
%RSD	14.24597	308.2929	7.890307	2706.100	430.0398	74.56209	17361.26
#1	.1201180	.0000367	.0054748	.0004179	-.002977	.0006525	-.000284
#2	.0919831	.0024357	.0047071	-.000202	-.000382	.0050948	.000495
#3	.0984000	-.000827	.0049151	-.000177	.006952	.0032270	-.000219

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB002 Acquired: 1/23/2025 15:03:32 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB002 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000272	-.001647	.0001756
Stddev	.000330	.001304	.0000129
%RSD	121.3569	79.13484	7.332142
#1	.000059	-.003086	.0001900
#2	-.000600	-.001312	.0001714
#3	-.000274	-.000544	.0001653

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3428.965	71009.78	9960.256	2417.021	4334.125
Stddev	2.647	284.24	42.777	8.175	1.403
%RSD	.0771846	.4002871	.4294768	.3382235	.0323605
#1	3426.812	70993.80	10008.23	2412.275	4333.051
#2	3431.920	71301.67	9926.09	2426.460	4335.712
#3	3428.162	70733.86	9946.44	2412.326	4333.612

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-05 Acquired: 1/23/2025 15:07:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG0D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0118228**	**-.001157**	**.0214319**	**.0109318**	**.0053832**	**11.28514**	**.1780185**
Stddev	.0019592	.000880	.0009638	.0016955	.0005304	.15125	.0028563
%RSD	16.57175	76.07461	4.497084	15.50983	9.853050	1.340215	1.604511
#1	.0138484	-.002091	.0210856	.0116387	.0059439	11.12542	.1751087
#2	.0099374	-.000343	.0225210	.0121595	.0048894	11.30383	.1781287
#3	.0116826	-.001037	.0206891	.0089972	.0053164	11.42617	.1808181

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005870**	**.0012195**	**5.679888**	**.0386562**	**.0294566**	**.0191234**	**50.82062**
Stddev	.0000490	.0000661	.069851	.0002925	.0002634	.0006536	.64256
%RSD	8.347141	5.418142	1.229792	.7568076	.8943722	3.417960	1.264364
#1	.0006040	.0012225	5.600862	.0383412	.0297608	.0188149	50.12440
#2	.0005318	.0011520	5.705425	.0389195	.0293074	.0198742	50.94660
#3	.0006252	.0012840	5.733377	.0387079	.0293016	.0186811	51.39086

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.075420**	**5.101587**	**.0698054**	**.0011519**	**.1316619**	**.0761662**	**.0852894**
Stddev	.009647	.062417	.0002947	.0001699	.0952775	.0016443	.0014523
%RSD	.8970842	1.223475	.4222067	14.74936	72.36530	2.158831	1.702843
#1	1.064306	5.034344	.0695704	.0011734	.2319994	.0780062	.0847111
#2	1.080317	5.112745	.0701361	.0013099	.1205714	.0756517	.0842152
#3	1.081637	5.157673	.0697097	.0009722	.0424150	.0748406	.0869418

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1263740**	**.9715464**	**.2098518**	**.0006584**	**.1747519**	**3.411359**	**.0038588**
Stddev	.0313447	.0016945	.0037969	.0004130	.0043019	.021469	.0001364
%RSD	24.80307	.1744145	1.809323	62.72293	2.461720	.6293320	3.535260
#1	.0922137	.9723138	.2054715	.0002684	.1772165	3.388759	.0038376
#2	.1330962	.9727214	.2118791	.0006158	.1772548	3.431482	.0040046
#3	.1538123	.9696039	.2122047	.0010911	.1697846	3.413834	.0037343

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-05 Acquired: 1/23/2025 15:07:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG0D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.075466	.0067348	.0198086
Stddev	.001917	.0006015	.0001133
%RSD	.1782292	8.931342	.5720430
#1	1.074780	.0062145	.0196787
#2	1.077631	.0073934	.0198597
#3	1.073986	.0065965	.0198874

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3492.800	73399.57	10422.64	2460.878	4241.905
Stddev	2.598	524.50	71.67	14.245	4.338
%RSD	.0743710	.7145849	.6875986	.5788624	.1022768
#1	3495.213	74003.69	10375.00	2477.019	4245.253
#2	3493.137	73134.71	10387.86	2450.064	4243.458
#3	3490.050	73060.32	10505.06	2455.551	4237.004

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-04LX5 Acquired: 1/23/2025 15:11:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG0L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003206	.0014058	.0041544	.0036671	.0012963	2.250145	.0342604
Stddev	.0015123	.0000400	.0009348	.0034315	.0006936	.003414	.0012231
%RSD	471.6763	2.843462	22.50183	93.57522	53.50964	.1517037	3.570007
#1	.0002961	.0013601	.0052182	.0020572	.0007078	2.247111	.0341760
#2	.0018450	.0014228	.0037815	.0013366	.0020610	2.253841	.0330817
#3	-.001179	.0014344	.0034636	.0076076	.0011201	2.249482	.0355235

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000657	.0002727	1.159105	.0081131	.0060593	.0063340	10.73933
Stddev	.0000485	.0000502	.001030	.0001423	.0001508	.0003209	.02180
%RSD	73.83681	18.40210	.0888543	1.753556	2.488280	5.066236	.2029972
#1	.0000176	.0002158	1.159346	.0080580	.0059948	.0064217	10.73580
#2	.0001146	.0002914	1.157975	.0080066	.0062316	.0066020	10.71951
#3	.0000649	.0003108	1.159992	.0082747	.0059515	.0059784	10.76268

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2263643	1.058836	.0140686	.0002411	-.182415	.0183690	.0185245
Stddev	.0015411	.019064	.0003411	.0002622	.059870	.0015163	.0016055
%RSD	.6807982	1.800503	2.424342	108.7383	32.82077	8.254647	8.666855
#1	.2248301	1.080577	.0144271	.0003958	-.121363	.0178873	.0175169
#2	.2263506	1.044978	.0137482	.0003892	-.241028	.0200676	.0176806
#3	.2279122	1.050952	.0140306	-.000062	-.184854	.0171521	.0203759

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.084810	.2014972	.0442635	-.000150	.0360486	.4068846	.0000091
Stddev	.048527	.0010259	.0002506	.000216	.0048527	.0025723	.0002056
%RSD	57.21885	.5091420	.5662381	143.7134	13.46150	.6322030	2269.433
#1	-.038468	.2007021	.0442791	.000076	.0304454	.4053103	-.000160
#2	-.135262	.2026553	.0445061	-.000172	.0388134	.4098530	-.000050
#3	-.080701	.2011344	.0440055	-.000354	.0388870	.4054905	.000238

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-04LX5 Acquired: 1/23/2025 15:11:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG0L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2149489	-.002358	.0038919
Stddev	.0010704	.001084	.0000459
%RSD	.4979630	45.95051	1.180592
#1	.2153369	-.002305	.0038512
#2	.2137386	-.003467	.0039417
#3	.2157711	-.001302	.0038828

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3501.581	71143.87	10011.06	2414.680	4375.839
Stddev	6.639	22.28	7.85	3.401	5.357
%RSD	.1896015	.0313194	.0784203	.1408597	.1224173
#1	3497.357	71123.78	10013.08	2418.034	4373.954
#2	3509.234	71139.99	10002.40	2411.233	4381.883
#3	3498.154	71167.84	10017.70	2414.772	4371.679

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-06 Acquired: 1/23/2025 15:15:50 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG0S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0876566	.1088461	.0638317	.1892973	.1886037	14.20111	3.857711
Stddev	.0026913	.0016906	.0016978	.0028342	.0021490	.08348	.011209
%RSD	3.070274	1.553201	2.659752	1.497216	1.139433	.5878549	.2905635
#1	.0872889	.1075782	.0648006	.1912246	.1892775	14.17109	3.865562
#2	.0851680	.1081947	.0648232	.1860431	.1861985	14.13679	3.844874
#3	.0905128	.1107655	.0618713	.1906243	.1903351	14.29545	3.862696

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0990145	.1021720	5.530625	.4966029	1.039419	.4987831	52.45096
Stddev	.0001076	.0000934	.010132	.0010683	.001065	.0046760	.19605
%RSD	.1086723	.0914059	.1831935	.2151238	.1024385	.9374856	.3737759
#1	.0989261	.1020998	5.525128	.4957954	1.038988	.5035466	52.32583
#2	.0991343	.1022774	5.524429	.4961989	1.038637	.4941998	52.35015
#3	.0989830	.1021386	5.542317	.4978142	1.040632	.4986030	52.67690

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.997861	4.904674	1.090141	.0758705	-.291319	1.089045	1.032752
Stddev	.004591	.012716	.001115	.0001866	.400849	.001201	.002289
%RSD	.2297858	.2592606	.1023082	.2459376	137.5982	.1102583	.2216020
#1	1.999030	4.894424	1.089197	.0758035	-.431407	1.089882	1.032737
#2	1.992798	4.918904	1.089854	.0760813	-.603324	1.089584	1.030471
#3	2.001753	4.900693	1.091371	.0757266	.160775	1.087669	1.035048

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.081373	.9816315	.2166638	.0000410	.1755358	1.918449	.0040372
Stddev	.023842	.0041347	.0011233	.0001748	.0025099	.007568	.0003380
%RSD	29.29960	.4212030	.5184433	426.8041	1.429828	.3944929	8.372314
#1	-.058809	.9846369	.2162321	.0001297	.1729620	1.927187	.0041345
#2	-.078995	.9769162	.2158204	-.000160	.1756688	1.914158	.0036612
#3	-.106315	.9833415	.2179389	.000154	.1779765	1.914001	.0043158

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-06 Acquired: 1/23/2025 15:15:50 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG0S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.024793**	**.0063793**	**.0182437**
Stddev	.001583	.0013442	.0000617
%RSD	.1544297	21.07165	.3380019
#1	1.026516	.0051402	.0182793
#2	1.023405	.0061892	.0181725
#3	1.024458	.0078084	.0182793

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3521.489**	**72781.04**	**10275.80**	**2457.316**	**4273.495**
Stddev	6.975	66.38	21.73	3.604	2.365
%RSD	.1980660	.0912007	.2114809	.1466839	.0553504
#1	3518.756	72784.15	10270.48	2453.552	4276.184
#2	3529.416	72845.81	10257.22	2460.736	4271.734
#3	3516.294	72713.16	10299.70	2457.660	4272.568

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-07 Acquired: 1/23/2025 15:19:46 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1655365	-.005564	.7904170	.0566816	.0292327	63.60740	2.603107
Stddev	.0003699	.002667	.0010234	.0031850	.0010382	.18416	.004775
%RSD	.2234386	47.92795	.1294703	5.619145	3.551367	.2895323	.1834350
#1	.1652334	-.002920	.7913259	.0578013	.0289437	63.67692	2.608431
#2	.1654275	-.005518	.7893086	.0591556	.0303847	63.39859	2.601685
#3	.1659486	-.008253	.7906164	.0530880	.0283697	63.74668	2.599204

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070070	.0113197	34.94998	.2451716	.1725413	.1891602	247.8600
Stddev	.0000879	.0000165	.05499	.0005433	.0002204	.0022554	.8625
%RSD	1.253920	.1461271	.1573438	.2215796	.1277145	1.192345	.3479864
#1	.0069218	.0113383	34.95823	.2457988	.1722921	.1904008	247.6392
#2	.0070973	.0113067	34.89133	.2448491	.1727104	.1865568	247.1294
#3	.0070019	.0113139	35.00038	.2448669	.1726216	.1905230	248.8115

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.97743	14.19314	.1039185	.0083892	.5657088	.4017273	2.127888
Stddev	.03103	.06186	.0002752	.0005410	.1324701	.0029051	.004219
%RSD	.1941999	.4358345	.2648039	6.448221	23.41665	.7231572	.1982591
#1	16.00217	14.18686	.1041486	.0078356	.5531912	.4050794	2.132760
#2	15.94262	14.13466	.1039932	.0084154	.4399418	.3999397	2.125460
#3	15.98750	14.25790	.1036137	.0089166	.7039933	.4001627	2.125446

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.345741	8.885870	1.018249	.0109156	3.859494	8.360005	.0183725
Stddev	.018673	.024586	.005580	.0002814	.013549	.007598	.0008627
%RSD	.3493022	.2766906	.5480049	2.578303	.3510553	.0908876	4.695616
#1	5.338144	8.874748	1.018869	.0106298	3.863645	8.366603	.0183400
#2	5.332065	8.868809	1.012385	.0111925	3.844355	8.361713	.0175265
#3	5.367015	8.914052	1.023493	.0109245	3.870481	8.351698	.0192510

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-07 Acquired: 1/23/2025 15:19:46 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.057621	.0268011	.0978152
Stddev	.003623	.0005560	.0001939
%RSD	.3425260	2.074413	.1982733
#1	1.060969	.0262289	.0980379
#2	1.058120	.0273393	.0977247
#3	1.053775	.0268352	.0976831

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3550.898	75215.29	10959.15	2522.804	3973.048
Stddev	4.173	118.43	26.57	6.380	6.327
%RSD	.1175101	.1574541	.2424313	.2528770	.1592505
#1	3555.411	75202.57	10965.13	2524.272	3980.353
#2	3550.103	75339.56	10930.10	2528.321	3969.488
#3	3547.180	75103.73	10982.22	2515.818	3969.303

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-08 Acquired: 1/23/2025 15:23:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1292200**	**-.009093**	**.5809592**	**.0395058**	**.0248583**	**57.36507**	**6.437653**
Stddev	.0027801	.001964	.0020259	.0035668	.0011583	.24969	.051876
%RSD	2.151428	21.59375	.3487245	9.028559	4.659646	.4352621	.8058202
#1	.1260978	-.011322	.5786256	.0436170	.0259671	57.07688	6.497523
#2	.1301346	-.007618	.5822680	.0372362	.0249516	57.51648	6.406050
#3	.1314275	-.008340	.5819840	.0376643	.0236561	57.50184	6.409385

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0071450**	**.0070605**	**220.1810**	**.1877304**	**.1804775**	**.3750863**	**192.4217**
Stddev	.0001812	.0000110	.9698	.0010992	.0005949	.0003981	.7501
%RSD	2.536098	.1554706	.4404352	.5855113	.3296186	.1061421	.3898037
#1	.0073457	.0070720	219.2738	.1873763	.1801746	.3754591	191.5995
#2	.0069935	.0070594	221.2031	.1889631	.1800950	.3746669	193.0687
#3	.0070959	.0070501	220.0663	.1868520	.1811628	.3751328	192.5969

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.21933**	**76.57405**	**.1193112**	**.0055575**	**.2472298**	**.2855097**	**1.246445**
Stddev	.07819	.18805	.0006102	.0001746	.2611698	.0012778	.011956
%RSD	.5498977	.2455836	.5114193	3.142209	105.6385	.4475562	.9591736
#1	14.15276	76.37514	.1198968	.0054344	.3225198	.2868434	1.233653
#2	14.30544	76.74894	.1193577	.0057574	-.043315	.2842963	1.257337
#3	14.19979	76.59807	.1186791	.0054808	.462484	.2853895	1.248344

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.726396**	**7.852858**	**.8231161**	**.0087822**	**7.887768**	**8.192415**	**.0093236**
Stddev	.029480	.003360	.0041919	.0001917	.019053	.044729	.0005881
%RSD	.3815525	.0427814	.5092691	2.182335	.2415528	.5459801	6.307504
#1	7.710590	7.848990	.8184071	.0089033	7.905317	8.208478	.0093488
#2	7.760409	7.855047	.8264408	.0085612	7.890483	8.226895	.0087234
#3	7.708190	7.854537	.8245003	.0088821	7.867502	8.141873	.0098987

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-08 Acquired: 1/23/2025 15:23:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9482095	.0334407	.2326359
Stddev	.0042504	.0005903	.0013626
%RSD	.4482547	1.765344	.5857199
#1	.9510778	.0337017	.2311180
#2	.9502243	.0338555	.2337535
#3	.9433263	.0327648	.2330361

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3424.398	71772.54	10835.17	2434.039	3722.470
Stddev	4.071	184.49	70.81	5.879	6.571
%RSD	.1188943	.2570434	.6535603	.2415200	.1765135
#1	3425.334	71879.20	10764.30	2439.080	3726.678
#2	3427.920	71559.51	10835.29	2427.582	3725.834
#3	3419.940	71878.91	10905.92	2435.457	3714.899

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-09 Acquired: 1/23/2025 15:27:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0931536**	**-.004818**	**.4748293**	**.0362724**	**.0177612**	**47.27765**
Stddev	.0028458	.000879	.0033207	.0009204	.0024754	.23185
%RSD	3.055000	18.24598	.6993573	2.537342	13.93702	.4903979
#1	.0960631	-.003955	.4728090	.0373095	.0165156	47.39840
#2	.0930217	-.005712	.4786619	.0355529	.0206120	47.01034
#3	.0903760	-.004786	.4730170	.0359547	.0161561	47.42419

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.154099**	**.0066635**	**.0052293**	**54.89145**	**.1860484**	**.1424539**
Stddev	.006662	.0000567	.0000036	.10919	.0003518	.0003911
%RSD	.2112303	.8506047	.0688673	.1989283	.1891089	.2745317
#1	3.161515	.0066767	.0052257	54.97436	.1863816	.1429024
#2	3.148619	.0067125	.0052292	54.76772	.1860829	.1421842
#3	3.152163	.0066014	.0052329	54.93225	.1856805	.1422751

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1505666**	**155.3928**	**16.15531**	**13.90121**	**.0826310**	**.0061106**
Stddev	.0021075	.5525	.00190	.04830	.0002766	.0004709
%RSD	1.399723	.3555315	.0117880	.3474581	.3347686	7.707010
#1	.1487865	155.5708	16.15751	13.93372	.0829498	.0058609
#2	.1500196	154.7732	16.15428	13.84571	.0824543	.0066538
#3	.1528936	155.8343	16.15414	13.92420	.0824890	.0058171

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1215729**	**.2479257**	**1.149960**	**7.284977**	F **12.72928**	**.6545165**
Stddev	.1462564	.0005554	.003128	.035745	.02345	.0029352
%RSD	120.3034	.2240026	.2719770	.4906629	.1842465	.4484549
#1	-.022379	.2472845	1.151499	7.324867	12.72686	.6561780
#2	.270030	.2482428	1.146362	7.274211	12.70713	.6511274
#3	.117068	.2482500	1.152020	7.255853	12.75385	.6562440

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-09 Acquired: 1/23/2025 15:27:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG3 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0080960	6.913244	6.723973	.0066804	.9178696	.0221864
Stddev	.0004232	.024699	.026525	.0013512	.0015766	.0010612
%RSD	5.227084	.3572716	.3944773	20.22555	.1717661	4.783267
#1	.0078584	6.909827	6.724188	.0053081	.9160877	.0210258
#2	.0078449	6.890431	6.750390	.0080094	.9190834	.0231072
#3	.0085845	6.939473	6.697342	.0067239	.9184377	.0224263

Elem	Sr4077
Units	ppm
Avg	.1216841
Stddev	.0004743
%RSD	.3898023
#1	.1217523
#2	.1211794
#3	.1221207

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3542.048	74029.24	10935.12	2509.151	4001.053
Stddev	4.477	137.65	27.81	7.226	5.532
%RSD	.1263894	.1859361	.2542951	.2879900	.1382560
#1	3537.968	74023.21	10955.06	2516.386	3997.089
#2	3546.837	74169.80	10903.36	2509.132	4007.372
#3	3541.338	73894.70	10946.94	2501.934	3998.697

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-10 Acquired: 1/23/2025 15:31:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0831386**	**-.005706**	**.4995695**	**.0295005**	**.0151970**	**41.05372**	**6.396130**
Stddev	.0032692	.000855	.0012530	.0050621	.0007501	.22332	.055647
%RSD	3.932177	14.99001	.2508151	17.15927	4.935521	.5439747	.8700048
#1	.0834729	-.006680	.5008046	.0293477	.0156721	41.01759	6.354337
#2	.0797151	-.005360	.4982994	.0245166	.0155866	40.85066	6.459294
#3	.0862278	-.005078	.4996046	.0346373	.0143323	41.29290	6.374758

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057598**	**.0053109**	**50.41654**	**.1417069**	**.1010823**	**.1050403**	**127.2865**
Stddev	.0000669	.0000570	.18672	.0004134	.0003341	.0031712	.4698
%RSD	1.161481	1.074202	.3703506	.2917648	.3305588	3.019009	.3691195
#1	.0058068	.0053124	50.37855	.1416616	.1014668	.1077917	126.9827
#2	.0057894	.0053672	50.25173	.1421412	.1009177	.1015721	127.0492
#3	.0056832	.0052531	50.61933	.1413180	.1008625	.1057572	127.8277

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.27601**	**15.36587**	**.0707799**	**.0026662**	**.1849980**	**.2053973**	**.9088899**
Stddev	.06541	.06634	.0004506	.0001010	.2845227	.0029712	.0037746
%RSD	.6364945	.4317311	.6365759	3.786783	153.7977	1.446576	.4152972
#1	10.27973	15.28944	.0702952	.0026445	.5117364	.2021553	.9084165
#2	10.20882	15.39964	.0711859	.0027762	.0513716	.2060462	.9053744
#3	10.33947	15.40853	.0708586	.0025778	-.008114	.2079905	.9128789

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.841997**	**6.062165**	**.5269623**	**.0065307**	**4.998732**	**6.334966**	**.0076106**
Stddev	.024113	.013641	.0025944	.0002824	.002539	.011852	.0004020
%RSD	.6276039	.2250219	.4923214	4.323897	.0507864	.1870895	5.281566
#1	3.869683	6.073975	.5255772	.0067376	5.001654	6.344607	.0072550
#2	3.825601	6.065285	.5253545	.0062090	4.997068	6.338557	.0075300
#3	3.830705	6.047234	.5299552	.0066456	4.997475	6.321733	.0080467

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-10 Acquired: 1/23/2025 15:31:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9089066	.0173966	.1464860
Stddev	.0027609	.0000947	.0011853
%RSD	.3037622	.5442988	.8091185
#1	.9089476	.0174128	.1466709
#2	.9061254	.0172949	.1452191
#3	.9116468	.0174822	.1475679

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3523.048	74491.34	10424.49	2531.111	4000.927
Stddev	6.789	137.47	50.36	.432	5.387
%RSD	.1927139	.1845385	.4830971	.0170750	.1346526
#1	3530.180	74389.98	10391.05	2531.486	4000.130
#2	3516.662	74647.81	10400.01	2531.208	3995.983
#3	3522.302	74436.21	10482.41	2530.638	4006.669

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-11 Acquired: 1/23/2025 15:35:46 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1829563	-.007736	.5594750	.0560251	.0285731	68.46550	1.817045
Stddev	.0029348	.002420	.0004589	.0026086	.0016501	.21228	.005773
%RSD	1.604120	31.28290	.0820251	4.656056	5.774920	.3100599	.3177403
#1	.1817246	-.009955	.5592430	.0579986	.0266860	68.22111	1.811634
#2	.1808380	-.005156	.5591784	.0570091	.0292885	68.60411	1.823123
#3	.1863063	-.008097	.5600036	.0530677	.0297447	68.57129	1.816378

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0109199	.0092056	59.02964	.2059379	.1962379	.2167061	261.3199
Stddev	.0000493	.0000489	.11924	.0000699	.0003135	.0004228	.4278
%RSD	.4517306	.5317346	.2020049	.0339443	.1597685	.1951141	.1636974
#1	.0109748	.0091548	58.90070	.2059733	.1961627	.2170652	260.8287
#2	.0109057	.0092094	59.13594	.2059831	.1959688	.2162401	261.6105
#3	.0108793	.0092525	59.05229	.2058574	.1965822	.2168129	261.5206

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.80434	31.98451	.1952249	.0078277	.0906823	.3535290	.5637724
Stddev	.02413	.02013	.0000447	.0003022	.3457509	.0028719	.0031514
%RSD	.2044305	.0629410	.0228878	3.861116	381.2771	.8123497	.5589892
#1	11.78137	31.96645	.1951901	.0074834	-.279551	.3503932	.5601952
#2	11.82949	32.00622	.1952094	.0080493	.405179	.3541626	.5661390
#3	11.80218	31.98087	.1952753	.0079504	.146419	.3560312	.5649831

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.773797	3.176088	1.075265	.0073484	2.159409	9.385111	.0105515
Stddev	.044270	.009430	.002222	.0005611	.001726	.018303	.0003966
%RSD	1.173088	.2969019	.2066257	7.635496	.0799212	.1950248	3.758703
#1	3.772918	3.175941	1.072699	.0077370	2.161347	9.364125	.0107316
#2	3.729974	3.166732	1.076525	.0067052	2.158037	9.393432	.0100968
#3	3.818500	3.185590	1.076569	.0076032	2.158844	9.397775	.0108261

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-11 Acquired: 1/23/2025 15:35:46 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9308188	.0204553	.0973701
Stddev	.0019874	.0007363	.0003445
%RSD	.2135133	3.599499	.3538082
#1	.9285935	.0199937	.0969863
#2	.9314457	.0213044	.0976527
#3	.9324171	.0200677	.0974713

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4012.682	84014.29	12553.86	2873.774	3863.738
Stddev	2.261	139.36	14.72	12.707	2.537
%RSD	.0563455	.1658722	.1172633	.4421816	.0656534
#1	4010.478	84145.40	12548.90	2888.236	3861.802
#2	4012.571	84029.54	12570.42	2868.689	3862.802
#3	4014.996	83867.94	12542.26	2864.397	3866.610

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-12 Acquired: 1/23/2025 15:39:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1184577**	**-.005822**	**.5067109**	**.0412977**	**.0203197**	**46.87148**	**1.546489**
Stddev	.0027750	.001281	.0001496	.0017263	.0002038	.19380	.008161
%RSD	2.342600	22.00048	.0295147	4.180057	1.003001	.4134631	.5276798
#1	.1162498	-.005463	.5067220	.0432165	.0202368	46.65246	1.538624
#2	.1215727	-.007245	.5065562	.0398708	.0201704	46.94124	1.545926
#3	.1175504	-.004760	.5068547	.0408059	.0205519	47.02074	1.554916

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0072146**	**.0064125**	**22.92140**	**.1922911**	**.1301233**	**.0813872**	**180.1356**
Stddev	.0000195	.0001013	.03001	.0001586	.0006131	.0015772	.6650
%RSD	.2698601	1.579562	.1309442	.0824533	.4711823	1.937881	.3691686
#1	.0072078	.0064304	22.89183	.1924740	.1294586	.0818699	179.4386
#2	.0071994	.0065036	22.92054	.1921922	.1306668	.0796251	180.2051
#3	.0072365	.0063034	22.95184	.1922071	.1302445	.0826666	180.7632

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.44141**	**7.286407**	**.0791845**	**.0055937**	**.0831193**	**.2890687**	**.8577245**
Stddev	.06439	.031297	.0004614	.0002319	.2204819	.0019253	.0041744
%RSD	.4458778	.4295228	.5826281	4.145899	265.2597	.6660535	.4866800
#1	14.39388	7.257224	.0793871	.0055216	-.127765	.2912201	.8584993
#2	14.41566	7.282540	.0795099	.0054065	.065037	.2875077	.8532170
#3	14.51469	7.319458	.0786565	.0058532	.312086	.2884783	.8614572

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.902380**	**3.824332**	**.7381251**	**.0080396**	**3.316126**	**6.787705**	**.0076222**
Stddev	.018992	.016699	.0030701	.0000686	.014306	.037026	.0000651
%RSD	.6543549	.4366595	.4159377	.8528422	.4314094	.5454879	.8537462
#1	2.912863	3.816218	.7353096	.0079604	3.303814	6.827761	.0076468
#2	2.913820	3.843538	.7376673	.0080808	3.331820	6.754733	.0075485
#3	2.880457	3.813241	.7413984	.0080775	3.312746	6.780621	.0076714

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-12 Acquired: 1/23/2025 15:39:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.012903	.0200308	.0799871
Stddev	.001651	.0010448	.0005255
%RSD	.1630158	5.216195	.6570351
#1	1.012282	.0191692	.0793995
#2	1.011652	.0197301	.0801492
#3	1.014774	.0211930	.0804124

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3728.008	78047.96	11162.15	2610.543	4149.327
Stddev	14.524	133.31	58.57	10.930	13.997
%RSD	.3895894	.1708033	.5246827	.4186917	.3373400
#1	3716.514	78106.92	11094.53	2611.483	4151.849
#2	3723.178	78141.63	11196.73	2620.973	4134.240
#3	3744.331	77895.34	11195.19	2599.174	4161.891

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-13 Acquired: 1/23/2025 15:43:38 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1479802**	**-.010208**	**4.991527**	**.0279740**	**.0472582**	**23.15570**
Stddev	.0025262	.000261	.008068	.0038240	.0012771	.11969
%RSD	1.707107	2.555273	.1616379	13.67002	2.702373	.5168732
#1	.1485946	-.009935	5.000732	.0260175	.0459382	23.05218
#2	.1452034	-.010236	4.985684	.0323804	.0473489	23.28675
#3	.1501424	-.010454	4.988163	.0255241	.0484875	23.12816

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.53135**	**.0022624**	**.1174599**	F **1608.859**	**.1265004**	**.0836233**
Stddev	.07761	.0001527	.0004785	16.373	.0002171	.0007022
%RSD	.7369450	6.748336	.4073704	1.017685	.1716179	.8397423
#1	10.45394	.0021205	.1177631	1605.175	.1262855	.0828446
#2	10.53095	.0022427	.1169082	1626.760	.1264963	.0838166
#3	10.60916	.0024240	.1177082	1594.642	.1267196	.0842085

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5181916**	**233.3588**	**6.563555**	F **894.0007**	**.1478203**	**.0087178**
Stddev	.0025550	1.2909	.031361	5.5561	.0004244	.0003281
%RSD	.4930694	.5531935	.4778058	.6214865	.2870843	3.764083
#1	.5205559	232.2019	6.546032	888.5817	.1476143	.0084162
#2	.5185377	234.7513	6.599761	899.6845	.1475383	.0090673
#3	.5154811	233.1232	6.544871	893.7360	.1483083	.0086701

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.097202**	**.2300267**	F **54.74087**	**1.927524**	**3.435283**	**1.018196**
Stddev	.215952	.0010343	.45655	.035376	.010370	.008258
%RSD	222.1684	.4496253	.8340275	1.835333	.3018767	.8110374
#1	-.147113	.2310849	54.50006	1.889269	3.439104	1.011128
#2	.139335	.2299771	55.26742	1.959057	3.423544	1.027273
#3	-.283828	.2290181	54.45514	1.934247	3.443200	1.016188

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-13 Acquired: 1/23/2025 15:43:38 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042882	F 108.6698	5.413327	.0187168	.7850584	.0529118
Stddev	.0001936	.2883	.011418	.0013916	.0021104	.0010682
%RSD	4.515634	.2653262	.2109300	7.434850	.2688147	2.018771
#1	.0045049	108.7402	5.423515	.0173877	.7826380	.0528098
#2	.0041321	108.3528	5.400985	.0201633	.7865132	.0540272
#3	.0042277	108.9164	5.415482	.0185993	.7860240	.0518982

Elem	Sr4077
Units	ppm
Avg	.7816603
Stddev	.0041074
%RSD	.5254721
#1	.7813346
#2	.7859209
#3	.7777255

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2790.892	58897.01	9368.492	1936.697	3003.039
Stddev	5.599	326.39	32.282	15.053	8.351
%RSD	.2006187	.5541642	.3445852	.7772428	.2780891
#1	2788.785	59213.83	9391.425	1943.997	2994.891
#2	2797.239	58561.83	9382.475	1919.386	3011.579
#3	2786.652	58915.37	9331.575	1946.708	3002.646

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-14 Acquired: 1/23/2025 15:47:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1812643	-.008421	.6279546	.0588849	.0267924	70.92708	4.000858
Stddev	.0005518	.000717	.0008984	.0017608	.0014671	.12106	.011497
%RSD	.3044409	8.508940	.1430734	2.990261	5.475944	.1706890	.2873662
#1	.1812141	-.009172	.6282658	.0573500	.0255130	70.78833	3.993103
#2	.1818396	-.007745	.6269419	.0608071	.0264704	71.01122	4.014067
#3	.1807393	-.008347	.6286561	.0584976	.0283938	70.98168	3.995403

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075565	.0076439	51.60415	.2494020	.2139148	.1631333	268.9060
Stddev	.0001090	.0000864	.15056	.0006228	.0000982	.0019264	.5925
%RSD	1.442578	1.129930	.2917686	.2497257	.0459172	1.180863	.2203330
#1	.0076717	.0076270	51.43300	.2496136	.2138433	.1619018	268.2732
#2	.0074550	.0077375	51.66323	.2498914	.2138743	.1621448	268.9971
#3	.0075427	.0075673	51.71621	.2487010	.2140268	.1653533	269.4476

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.02185	21.33790	.0989513	.0081922	.4080168	.3907543	1.597705
Stddev	.02867	.10041	.0005825	.0003566	.1646261	.0011656	.009574
%RSD	.2044889	.4705538	.5887109	4.353159	40.34787	.2982971	.5992153
#1	13.98921	21.30869	.0989933	.0080548	.3436465	.3915248	1.592768
#2	14.03338	21.25534	.0995117	.0079246	.5951023	.3894134	1.591608
#3	14.04297	21.44968	.0983489	.0085970	.2853018	.3913248	1.608740

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.106686	3.175856	1.104393	.0101252	3.108656	8.632816	.0106681
Stddev	.016917	.013030	.003009	.0006323	.007968	.008379	.0016588
%RSD	.4119394	.4102681	.2724244	6.244302	.2563061	.0970637	15.54961
#1	4.119891	3.182174	1.100936	.0101406	3.110768	8.635228	.0089510
#2	4.087617	3.184522	1.105831	.0094854	3.099846	8.639724	.0107916
#3	4.112551	3.160872	1.106413	.0107496	3.115355	8.623495	.0122618

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-14 Acquired: 1/23/2025 15:47:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.055225	.0265606	.1135394
Stddev	.002812	.0007018	.0003133
%RSD	.2664652	2.642449	.2759498
#1	1.056174	.0272257	.1132401
#2	1.057439	.0258271	.1138650
#3	1.052061	.0266291	.1135132

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3635.364	74581.85	11151.11	2527.571	4003.607
Stddev	2.090	75.20	37.84	10.397	4.963
%RSD	.0574827	.1008244	.3393117	.4113351	.1239580
#1	3637.392	74495.78	11111.88	2528.041	4002.502
#2	3635.482	74614.95	11154.08	2537.725	4009.029
#3	3633.218	74634.82	11187.38	2516.947	3999.290

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-15 Acquired: 1/23/2025 15:51:44 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0880696**	**-.003566**	**3.784734**	**.0057858**	**.0284676**	**1.690266**
Stddev	.0055980	.003281	.009085	.0033202	.0006427	.028395
%RSD	6.356319	92.02094	.2400383	57.38494	2.257578	1.679908
#1	.0944772	.000012	3.776419	.0084502	.0281854	1.657546
#2	.0841275	-.006435	3.783352	.0020663	.0280143	1.704792
#3	.0856042	-.004275	3.794430	.0068408	.0292031	1.708459

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.00484**	**-.000320**	**.0922511**	F **2041.973**	**.0226766**	**.0249589**
Stddev	.02865	.000043	.0000692	9.914	.0005245	.0002811
%RSD	.2863989	13.56218	.0749590	.4854999	2.313055	1.126428
#1	10.02114	-.000349	.0922712	2032.084	.0226342	.0250943
#2	9.97175	-.000341	.0923079	2041.925	.0232211	.0246357
#3	10.02162	-.000270	.0921741	2051.911	.0221746	.0251468

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4950844**	**118.3793**	**1.569649**	F **1162.576**	**.1254657**	**.0031767**
Stddev	.0030662	.2108	.009838	1.410	.0006852	.0002390
%RSD	.6193216	.1780797	.6267553	.1212965	.5461159	7.523203
#1	.4954432	118.3218	1.567427	1162.610	.1246750	.0030610
#2	.4918547	118.2032	1.561113	1161.149	.1258366	.0034515
#3	.4979555	118.6129	1.580408	1163.968	.1258854	.0030176

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-1.42840**	**.0780108**	F **33.24031**	**-.885928**	**.7994147**	**.5189259**
Stddev	.14758	.0023927	.05010	.039278	.0052147	.0011580
%RSD	10.33174	3.067111	.1507171	4.433566	.6523136	.2231438
#1	-1.26577	.0805675	33.18391	-.883027	.7936984	.5191394
#2	-1.55380	.0758256	33.27966	-.926577	.8006338	.5176761
#3	-1.46564	.0776392	33.25735	-.848181	.8039118	.5199623

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-15 Acquired: 1/23/2025 15:51:44 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPG9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001760**	F **116.3405**	**.8428797**	**-.001202**	**.0026875**	**.0553379**
Stddev	.000782	.2902	.0082345	.001175	.0009104	.0010494
%RSD	44.45113	.2494215	.9769449	97.74867	33.87498	1.896284
#1	-.002592	116.0758	.8386212	-.002522	.0033689	.0564689
#2	-.001039	116.2949	.8376465	-.000811	.0030401	.0543959
#3	-.001648	116.6507	.8523713	-.000272	.0016536	.0551489

Elem	Sr4077
Units	ppm
Avg	**.8131332**
Stddev	.0053847
%RSD	.6622166
#1	.8127923
#2	.8079270
#3	.8186802

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2609.150**	**55212.92**	**9012.803**	**1817.189**	**2888.991**
Stddev	2.271	94.37	42.479	9.396	1.470
%RSD	.0870312	.1709213	.4713147	.5170523	.0508866
#1	2610.914	55312.08	9051.958	1820.072	2888.981
#2	2609.946	55124.21	8967.641	1806.689	2890.466
#3	2606.588	55202.46	9018.810	1824.805	2887.526

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-16 Acquired: 1/23/2025 15:56:00 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0465036	-.002067	.3459408	.0261059	.0161403	48.25733	1.204238
Stddev	.0011659	.001899	.0006544	.0035632	.0020142	.05074	.003401
%RSD	2.507163	91.86395	.1891720	13.64894	12.47947	.1051504	.2824061
#1	.0457629	.000101	.3466905	.0300704	.0184477	48.26942	1.206969
#2	.0478476	-.002870	.3454840	.0231705	.0147339	48.20163	1.205317
#3	.0459003	-.003433	.3456477	.0250769	.0152392	48.30093	1.200429

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038216	.0042552	54.49462	.1079261	.1133962	.1086176	110.2258
Stddev	.0000085	.0000736	.20034	.0007229	.0006809	.0028220	.2703
%RSD	.2224140	1.728598	.3676406	.6698409	.6004572	2.598104	.2452267
#1	.0038259	.0043240	54.68888	.1086024	.1141777	.1056517	110.4306
#2	.0038118	.0041776	54.28870	.1071642	.1129308	.1089318	109.9194
#3	.0038270	.0042640	54.50629	.1080118	.1130801	.1112694	110.3275

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.599784	18.45683	.0793077	.0032954	.1271581	.1791448	2.621138
Stddev	.014139	.09954	.0004687	.0001868	.3387309	.0023239	.005177
%RSD	.3073838	.5393286	.5909733	5.668580	266.3856	1.297238	.1974912
#1	4.615710	18.51430	.0798379	.0034712	-.035822	.1818064	2.618456
#2	4.588710	18.34189	.0789483	.0033156	-.099275	.1775184	2.627105
#3	4.594933	18.51431	.0791370	.0030993	.516571	.1781095	2.617853

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.844510	5.040733	.4633245	.0062695	3.863815	8.383687	.0081311
Stddev	.036202	.018223	.0015329	.0002730	.019085	.032940	.0008896
%RSD	.6194160	.3615102	.3308454	4.354398	.4939470	.3929023	10.94063
#1	5.884203	5.052671	.4633298	.0060143	3.879623	8.417071	.0073895
#2	5.836016	5.049770	.4617890	.0065574	3.869208	8.351211	.0091174
#3	5.813310	5.019758	.4648547	.0062366	3.842613	8.382779	.0078863

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-16 Acquired: 1/23/2025 15:56:00 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.356992	.0249828	.1164550
Stddev	.004704	.0003477	.0002412
%RSD	.3466691	1.391865	.2071311
#1	1.362114	.0246568	.1166293
#2	1.355998	.0249426	.1165560
#3	1.352865	.0253488	.1161797

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3507.722	72804.11	10768.11	2454.042	4015.034
Stddev	7.981	487.80	65.84	8.929	7.501
%RSD	.2275340	.6700218	.6114680	.3638335	.1868212
#1	3499.774	72467.96	10707.88	2448.891	4007.175
#2	3507.655	73363.60	10838.40	2464.351	4015.812
#3	3515.736	72580.77	10758.05	2448.883	4022.116

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-17 Acquired: 1/23/2025 15:59:56 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0692724	-.003624	3.193830	.0185148	.0166885	35.98708	.9518504
Stddev	.0029880	.001689	.000778	.0005595	.0023267	.27133	.0085269
%RSD	4.313335	46.59613	.0243613	3.021762	13.94161	.7539608	.8958261
#1	.0671917	-.005505	3.194634	.0182777	.0173076	35.87096	.9472079
#2	.0679294	-.002240	3.193081	.0191537	.0141150	36.29714	.9616912
#3	.0726962	-.003127	3.193774	.0181129	.0186430	35.79314	.9466522

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044465	.0632016	164.0788	.1251751	.1220627	.1676837	119.4300
Stddev	.0000892	.0000294	1.1392	.0002263	.0002246	.0031573	.7064
%RSD	2.006384	.0464715	.6943126	.1807545	.1839668	1.882863	.5914627
#1	.0045242	.0631804	163.3494	.1249770	.1218036	.1679895	118.9708
#2	.0043491	.0632351	165.3915	.1254217	.1222016	.1706770	120.2434
#3	.0044662	.0631892	163.4954	.1251266	.1221829	.1643848	119.0757

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.629171	77.29601	.0954835	.0033388	-.056437	.1697907	4.615483
Stddev	.049217	.44062	.0001622	.0003463	.228164	.0030104	.020203
%RSD	.7424336	.5700444	.1698859	10.37290	404.2814	1.773003	.4377150
#1	6.603349	77.14911	.0955982	.0029752	.102146	.1682036	4.593240
#2	6.685926	77.79131	.0952979	.0036648	-.317929	.1732626	4.632694
#3	6.598239	76.94760	.0955544	.0033763	.046473	.1679060	4.620514

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.097356	3.669335	.4873869	.0052516	4.069854	7.371274	.0273535
Stddev	.054330	.009772	.0039535	.0001864	.004670	.015182	.0003300
%RSD	1.065849	.2663122	.8111706	3.548610	.1147481	.2059605	1.206331
#1	5.111070	3.680309	.4841669	.0052438	4.067319	7.383385	.0277328
#2	5.143514	3.661576	.4917994	.0054417	4.067000	7.376194	.0271329
#3	5.037482	3.666119	.4861944	.0050692	4.075243	7.354242	.0271947

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-17 Acquired: 1/23/2025 15:59:56 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.086756	.0199245	.0943746
Stddev	.001309	.0002297	.0007069
%RSD	.1204048	1.152880	.7490502
#1	1.086698	.0196815	.0940046
#2	1.088093	.0201380	.0951897
#3	1.085478	.0199539	.0939295

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3433.890	70995.28	9494.570	2411.705	3837.828
Stddev	.773	240.22	26.797	10.674	5.557
%RSD	.0225211	.3383637	.2822385	.4425956	.1447914
#1	3434.768	71185.20	9483.639	2423.982	3843.746
#2	3433.311	70725.23	9525.105	2404.621	3832.721
#3	3433.591	71075.40	9474.965	2406.512	3837.017

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-18 Acquired: 1/23/2025 16:03:50 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0773283	-.002086	1.157319	.0320645	.0176275	48.87792	1.266236
Stddev	.0029846	.001579	.002576	.0017565	.0001331	.06495	.003399
%RSD	3.859703	75.69525	.2225794	5.478037	.7552785	.1328841	.2684468
#1	.0741763	-.001905	1.154714	.0318706	.0175690	48.80466	1.264215
#2	.0801113	-.000606	1.157377	.0339100	.0177799	48.92846	1.264332
#3	.0776974	-.003749	1.159865	.0304131	.0175337	48.90063	1.270160

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028531	.0059437	38.50782	.1235821	.0768738	.1650119	135.9741
Stddev	.0000420	.0000246	.06676	.0008127	.0003996	.0021778	.4877
%RSD	1.471570	.4146963	.1733659	.6576343	.5197789	1.319764	.3586527
#1	.0028268	.0059337	38.43229	.1240280	.0765759	.1624973	135.4110
#2	.0028310	.0059256	38.55891	.1240743	.0767176	.1662546	136.2629
#3	.0029015	.0059718	38.53227	.1226440	.0773279	.1662838	136.2483

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.958077	15.42734	.0800588	.0028478	.2393906	.2124415	1.829722
Stddev	.007306	.03352	.0005521	.0006750	.3621788	.0003892	.003863
%RSD	.2469961	.2172840	.6895802	23.70316	151.2920	.1832027	.2111032
#1	2.950230	15.39277	.0796605	.0020842	.3752394	.2128680	1.828037
#2	2.959320	15.45970	.0798270	.0033649	.5140043	.2121056	1.834141
#3	2.964683	15.42954	.0806890	.0030945	-.171072	.2123508	1.826989

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.713966	6.296194	.5832380	.0074695	4.292399	8.164654	.0214912
Stddev	.021810	.020390	.0031472	.0002048	.019829	.018994	.0006830
%RSD	.3248429	.3238497	.5396142	2.741378	.4619521	.2326379	3.178121
#1	6.729073	6.281778	.5796524	.0075972	4.276221	8.161403	.0218973
#2	6.688962	6.287279	.5845181	.0072333	4.286455	8.147496	.0218737
#3	6.723863	6.319523	.5855434	.0075780	4.314519	8.185064	.0207026

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-18 Acquired: 1/23/2025 16:03:50 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.305792	.0236034	.0857789
Stddev	.003056	.0006933	.0002309
%RSD	.2340068	2.937419	.2692261
#1	1.307906	.0244017	.0856600
#2	1.307182	.0232568	.0856317
#3	1.302288	.0231517	.0860451

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3559.264	73185.51	10518.77	2491.132	4144.986
Stddev	4.314	200.83	10.40	3.653	4.210
%RSD	.1212100	.2744116	.0988999	.1466347	.1015574
#1	3562.898	73395.19	10519.85	2489.382	4148.002
#2	3560.398	72994.89	10507.87	2488.684	4146.779
#3	3554.496	73166.46	10528.59	2495.331	4140.177

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-19 Acquired: 1/23/2025 16:07:46 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0467850	-.000971	2.092633	.0234272	.0149197	47.42496	1.422783
Stddev	.0024051	.002248	.001151	.0013878	.0004125	.22442	.004516
%RSD	5.140704	231.4499	.0549946	5.923820	2.764513	.4732004	.3174188
#1	.0481931	-.000131	2.091334	.0249716	.0146166	47.29332	1.422566
#2	.0440080	-.003518	2.093038	.0230254	.0153894	47.68408	1.427404
#3	.0481540	.000735	2.093526	.0222847	.0147530	47.29748	1.418379

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052449	.0052232	18.12671	.1190009	.1633839	.1148684	108.4571
Stddev	.0001345	.0000142	.04353	.0005222	.0004728	.0003509	.4713
%RSD	2.563902	.2717952	.2401687	.4388006	.2893919	.3055187	.4345120
#1	.0053915	.0052100	18.10653	.1196003	.1629425	.1152605	108.2737
#2	.0051272	.0052214	18.17667	.1186446	.1633262	.1145837	108.9925
#3	.0052160	.0052382	18.09692	.1187579	.1638829	.1147610	108.1051

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.723017	7.650051	.0811622	.0035788	-.006228	.1789129	1.302789
Stddev	.012255	.025743	.0006671	.0002674	.203475	.0022332	.015025
%RSD	.1586762	.3365057	.8219673	7.472937	3267.004	1.248230	1.153279
#1	7.730870	7.657920	.0811730	.0037771	-.134786	.1814899	1.312531
#2	7.729284	7.670940	.0818238	.0036848	-.112262	.1775425	1.285486
#3	7.708896	7.621292	.0804897	.0032746	.228364	.1777063	1.310351

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.994142	4.077842	.4510651	.0050598	2.734653	7.033600	.0136820
Stddev	.054023	.015728	.0019527	.0004806	.013698	.052826	.0003881
%RSD	1.081736	.3856898	.4329087	9.498948	.5009138	.7510451	2.836828
#1	4.978005	4.088324	.4495434	.0050524	2.750468	7.090782	.0141295
#2	5.054395	4.059757	.4532669	.0055440	2.726970	6.986619	.0134789
#3	4.950026	4.085445	.4503850	.0045828	2.726521	7.023399	.0134375

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-19 Acquired: 1/23/2025 16:07:46 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.142599**	**.0238350**	**.0768736**
Stddev	.003086	.0008143	.0002830
%RSD	.2700421	3.416380	.3681682
#1	1.144242	.0238942	.0770259
#2	1.139040	.0246181	.0770478
#3	1.144516	.0229927	.0765470

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3744.325**	**75217.88**	**10911.84**	**2540.104**	**4274.846**
Stddev	5.186	248.19	83.72	19.385	6.211
%RSD	.1384988	.3299672	.7672740	.7631651	.1452975
#1	3742.899	74934.46	10846.22	2526.256	4275.261
#2	3740.001	75396.45	11006.13	2562.258	4268.437
#3	3750.075	75322.72	10883.17	2531.798	4280.839

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-20 Acquired: 1/23/2025 16:11:42 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0556074**	**-.001999**	**.8366462**	**.0267497**	**.0152542**	**45.20242**	**1.190015**
Stddev	.0004458	.001438	.0018074	.0027137	.0012418	.19137	.009964
%RSD	.8017170	71.95352	.2160318	10.14494	8.140353	.4233669	.8373409
#1	.0554549	-.001830	.8382382	.0285633	.0138249	45.30313	1.195983
#2	.0561094	-.003515	.8346815	.0236299	.0160677	45.32241	1.195550
#3	.0552578	-.000653	.8370189	.0280560	.0158701	44.98172	1.178512

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0052258**	**.0043040**	**15.43560**	**.1535576**	**.1279686**	**.0707103**	**113.9895**
Stddev	.0000670	.0001117	.08305	.0000654	.0002544	.0011011	.3995
%RSD	1.282425	2.595165	.5380402	.0426010	.1987655	1.557246	.3504725
#1	.0053025	.0044306	15.49298	.1535695	.1279704	.0703370	114.1479
#2	.0051970	.0042623	15.47345	.1536162	.1277133	.0698443	114.2856
#3	.0051780	.0042192	15.34037	.1534870	.1282220	.0719495	113.5351

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.475657**	**8.524883**	**.0797860**	**.0030457**	**-.041713**	**.1914272**	**.6966937**
Stddev	.045922	.024523	.0005037	.0005690	.225267	.0021559	.0008876
%RSD	.7091407	.2876679	.6313417	18.68036	540.0368	1.126220	.1274009
#1	6.496369	8.548455	.0798882	.0029260	.218378	.1937128	.6962850
#2	6.507574	8.526686	.0792390	.0036650	-.174883	.1911388	.6960841
#3	6.423027	8.499508	.0802308	.0025462	-.168635	.1894301	.6977120

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.410729**	**3.624177**	**.4661868**	**.0066106**	**2.824380**	**7.881785**	**.0151174**
Stddev	.046303	.004052	.0020227	.0002242	.003863	.082250	.0004565
%RSD	.7222737	.1118157	.4338713	3.392092	.1367574	1.043547	3.019972
#1	6.428967	3.623599	.4677020	.0067989	2.826738	7.856461	.0156313
#2	6.445135	3.628487	.4669684	.0066703	2.826480	7.973719	.0147588
#3	6.358084	3.620444	.4638900	.0063625	2.819923	7.815174	.0149620

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-20 Acquired: 1/23/2025 16:11:42 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.312431	.0227216	.0681155
Stddev	.012816	.0012784	.0006011
%RSD	.9764773	5.626400	.8825071
#1	1.309642	.0241447	.0684113
#2	1.326411	.0223496	.0685114
#3	1.301239	.0216705	.0674238

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3529.827	73252.43	10379.42	2460.183	4058.578
Stddev	2.585	187.26	63.13	10.909	2.624
%RSD	.0732316	.2556423	.6082062	.4434291	.0646510
#1	3529.459	73040.63	10425.27	2454.228	4058.526
#2	3527.446	73320.58	10307.42	2472.773	4055.979
#3	3532.577	73396.07	10405.58	2453.546	4061.226

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-21 Acquired: 1/23/2025 16:15:39 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0565798	-.001574	.3781258	.0295569	.0124903	50.83696	1.442842
Stddev	.0024577	.000746	.0001711	.0044381	.0008075	.40472	.013313
%RSD	4.343688	47.38591	.0452580	15.01555	6.465169	.7961228	.9226835
#1	.0574860	-.000983	.3783226	.0304854	.0132177	50.81822	1.439959
#2	.0584557	-.001327	.3780120	.0247280	.0116214	51.25072	1.457361
#3	.0537977	-.002412	.3780429	.0334574	.0126317	50.44192	1.431207

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049486	.0037562	13.26304	.1374554	.1571568	.0669181	124.8393
Stddev	.0000199	.0000742	.05392	.0006398	.0003272	.0013072	.7233
%RSD	.4030139	1.975916	.4065605	.4654460	.2082240	1.953404	.5793892
#1	.0049689	.0037812	13.23353	.1381604	.1574307	.0684142	124.7313
#2	.0049290	.0038147	13.32528	.1372941	.1572453	.0663432	125.6106
#3	.0049479	.0036727	13.23032	.1369118	.1567944	.0659968	124.1761

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.027477	9.555415	.0840859	.0039594	.1357963	.2137320	.4043023
Stddev	.044889	.029204	.0000403	.0000532	.0740011	.0017551	.0032324
%RSD	.6387675	.3056325	.0479799	1.343963	54.49423	.8211659	.7994979
#1	7.005195	9.533312	.0841152	.0039149	.2201439	.2117416	.4023968
#2	7.079148	9.588523	.0840398	.0040184	.0817786	.2143966	.4024756
#3	6.998088	9.544409	.0841025	.0039450	.1054663	.2150577	.4080344

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.805352	2.440311	.5138609	.0061722	2.113951	8.369593	.0153748
Stddev	.055619	.006588	.0034455	.0003166	.000919	.015217	.0001752
%RSD	1.157429	.2699641	.6705103	5.129340	.0434887	.1818147	1.139369
#1	4.803441	2.447332	.5136192	.0063607	2.113583	8.361190	.0151866
#2	4.861901	2.434264	.5174209	.0063493	2.114998	8.360429	.0155331
#3	4.750713	2.439339	.5105426	.0058067	2.113273	8.387158	.0154047

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1041-21 Acquired: 1/23/2025 16:15:39 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.467460**	**.0281343**	**.0998893**
Stddev	.002618	.0011737	.0008151
%RSD	.1784131	4.171753	.8159663
#1	1.466430	.0289149	.0996897
#2	1.470437	.0267845	.1007856
#3	1.465515	.0287034	.0991926

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3576.148**	**74286.27**	**10818.00**	**2507.128**	**4049.363**
Stddev	6.944	112.91	83.30	11.357	6.968
%RSD	.1941657	.1519884	.7700442	.4529852	.1720827
#1	3582.376	74157.89	10802.60	2494.029	4046.863
#2	3577.407	74370.11	10907.92	2513.137	4057.237
#3	3568.661	74330.82	10743.46	2514.218	4043.990

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-01 Acquired: 1/23/2025 16:19:37 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPD8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0823601	-.004995	1.308866	.0284591	.0128289	50.07158	1.864408
Stddev	.0015209	.000438	.001244	.0027096	.0015223	.47113	.027536
%RSD	1.846660	8.773863	.0950150	9.521034	11.86593	.9409123	1.476931
#1	.0807190	-.004795	1.307508	.0261080	.0136374	50.61533	1.895921
#2	.0826389	-.004693	1.309948	.0314224	.0137764	49.81432	1.844987
#3	.0837222	-.005498	1.309144	.0278468	.0110730	49.78507	1.852316

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051845	.0048002	28.44275	.1315471	.1829945	.0908640	129.4875
Stddev	.0000692	.0000709	.27648	.0002286	.0006016	.0013684	1.2268
%RSD	1.334838	1.477722	.9720659	.1737676	.3287460	1.505953	.9474094
#1	.0051046	.0048116	28.76150	.1315519	.1824366	.0908464	130.8895
#2	.0052274	.0048647	28.29885	.1317732	.1829149	.0895045	128.6113
#3	.0052214	.0047242	28.26790	.1313161	.1836319	.0922411	128.9616

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.66511	12.47350	.0743985	.0042347	.4041684	.2270945	.5146151
Stddev	.12910	.08601	.0006109	.0003361	.1930678	.0025025	.0092090
%RSD	1.210525	.6895079	.8210473	7.937787	47.76916	1.101975	1.789487
#1	10.81251	12.57052	.0742051	.0045773	.4943705	.2264171	.5252486
#2	10.57208	12.40662	.0739077	.0042214	.5356257	.2250003	.5092603
#3	10.61075	12.44335	.0750826	.0039054	.1825089	.2298659	.5093365

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.997998	3.217779	.5371073	.0079323	2.139509	6.614028	.0101582
Stddev	.090283	.005537	.0074685	.0003176	.010661	.019770	.0000798
%RSD	3.011452	.1720854	1.390512	4.004007	.4982692	.2989028	.7857131
#1	3.093024	3.217014	.5456650	.0079837	2.135439	6.628471	.0100672
#2	2.913355	3.223659	.5319046	.0082211	2.131483	6.591497	.0101908
#3	2.987613	3.212664	.5337522	.0075922	2.151605	6.622117	.0102165

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-01 Acquired: 1/23/2025 16:19:37 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPD8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9982407	.0283085	.0591934
Stddev	.0026478	.0006965	.0008477
%RSD	.2652472	2.460251	1.432004
#1	1.001164	.0288410	.0601626
#2	.996004	.0275204	.0585905
#3	.997554	.0285643	.0588271

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3568.004	74693.41	10856.72	2525.115	4052.188
Stddev	4.319	335.27	69.61	8.203	3.503
%RSD	.1210399	.4488556	.6411420	.3248452	.0864496
#1	3568.559	74329.69	10932.38	2515.681	4055.957
#2	3563.435	74760.43	10795.40	2530.566	4049.031
#3	3572.019	74990.10	10842.38	2529.098	4051.575

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-02 Acquired: 1/23/2025 16:23:35 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPD9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0472132	-.002861	1.035347	.0225010	.0111752	42.20560	1.177489
Stddev	.0023369	.000365	.003966	.0005594	.0012769	.04949	.003376
%RSD	4.949608	12.75247	.3830300	2.485979	11.42649	.1172634	.2866724
#1	.0455220	-.002840	1.031840	.0231280	.0099066	42.21269	1.181297
#2	.0462379	-.002508	1.034551	.0220531	.0111586	42.25116	1.174865
#3	.0498797	-.003236	1.039651	.0223220	.0124603	42.15294	1.176306

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052914	.0031495	43.23937	.1093952	.1481219	.0579831	100.9003
Stddev	.0000407	.0000467	.02876	.0002935	.0000935	.0019716	.2083
%RSD	.7687218	1.483337	.0665150	.2683193	.0631452	3.400253	.2064397
#1	.0052503	.0031447	43.26860	.1090771	.1480613	.0595732	100.7505
#2	.0052923	.0031053	43.23840	.1096556	.1482296	.0557771	101.1382
#3	.0053317	.0031984	43.21111	.1094528	.1480748	.0585990	100.8124

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.07334	19.61199	.0680549	.0022427	.2666028	.1892152	.2854806
Stddev	.03423	.05482	.0002670	.0002792	.1328506	.0011244	.0047389
%RSD	.3091206	.2795193	.3922750	12.44755	49.83092	.5942425	1.659979
#1	11.11285	19.61146	.0677532	.0020475	.2129548	.1879873	.2890991
#2	11.05242	19.66708	.0682605	.0025625	.4178884	.1901946	.2872262
#3	11.05476	19.55744	.0681510	.0021182	.1689650	.1894637	.2801165

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.289830	2.970351	.4153462	.0059768	3.082061	6.588557	.0063596
Stddev	.025909	.007870	.0013290	.0001103	.010549	.004666	.0010854
%RSD	1.131493	.2649561	.3199805	1.845299	.3422661	.0708240	17.06674
#1	2.294770	2.964244	.4142906	.0058556	3.070935	6.589487	.0072170
#2	2.261807	2.967577	.4168386	.0060713	3.091918	6.592689	.0051393
#3	2.312914	2.979232	.4149092	.0060034	3.083329	6.583496	.0067225

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-02 Acquired: 1/23/2025 16:23:35 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPD9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8775207	.0230002	.0538572
Stddev	.0023536	.0005776	.0002279
%RSD	.2682098	2.511518	.4230982
#1	.8799861	.0236109	.0541194
#2	.8752976	.0229273	.0537448
#3	.8772783	.0224625	.0537074

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3573.404	73210.07	10372.33	2474.537	4105.618
Stddev	3.000	260.11	39.53	12.035	7.620
%RSD	.0839497	.3552901	.3811507	.4863622	.1856056
#1	3576.338	73487.35	10416.64	2487.916	4113.538
#2	3573.533	72971.46	10340.68	2471.104	4104.978
#3	3570.342	73171.38	10359.65	2464.592	4098.337

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV003 Acquired: 1/23/2025 16:27:31 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV003 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.952371**	**4.818726**	**24.48731**	**4.960811**	**5.022315**	**412.4374**
Stddev	.004132	.013242	.04298	.009094	.008724	4.2690
%RSD	.0834281	.2748063	.1755210	.1833152	.1737050	1.035063
#1	4.948838	4.828993	24.45697	4.971069	5.032388	411.5602
#2	4.956914	4.823405	24.46846	4.957625	5.017427	417.0768
#3	4.951360	4.803780	24.53649	4.953739	5.017132	408.6751

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.05673**	**.4828576**	**2.475804**	**405.5872**	**15.77896**	**2.476722**
Stddev	.03415	.0008313	.002991	1.5597	.02993	.003920
%RSD	.3395851	.1721562	.1208155	.3845470	.1896770	.1582876
#1	10.02483	.4818978	2.473771	406.5737	15.75782	2.472239
#2	10.05260	.4833453	2.474401	406.3988	15.76585	2.478415
#3	10.09275	.4833298	2.479238	403.7891	15.81321	2.479511

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.22653**	**416.4523**	**15.02198**	**407.2115**	**2.473269**	**1.294812**
Stddev	.03928	.4605	.01961	.3336	.003536	.002167
%RSD	.2760873	.1105809	.1305358	.0819232	.1429532	.1673216
#1	14.22089	416.8744	15.01696	407.5961	2.470112	1.294019
#2	14.26832	416.5213	15.04361	407.0382	2.472608	1.297263
#3	14.19038	415.9611	15.00537	407.0003	2.477089	1.293153

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**373.3495**	**2.430734**	**15.70855**	**160.2794**	**4.939517**	F **5.826338**
Stddev	2.1907	.003624	.00636	.1324	.009981	.002468
%RSD	.5867623	.1490953	.0405175	.0826153	.2020679	.0423604
#1	373.1111	2.432363	15.70532	160.4241	4.936854	5.828030
#2	375.6496	2.433258	15.71588	160.2497	4.950559	5.827478
#3	371.2878	2.426581	15.70445	160.1644	4.931137	5.823506

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV003 Acquired: 1/23/2025 16:27:31 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV003 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.908940**	**5.015501**	**4.779911**	**4.995819**	**4.814270**	**5.128893**
Stddev	.004520	.009536	.003269	.003691	.009870	.012866
%RSD	.0920741	.1901349	.0683954	.0738757	.2050130	.2508591
#1	4.913907	5.008288	4.776799	4.992273	4.817212	5.135787
#2	4.907844	5.026313	4.783318	4.995545	4.822333	5.136843
#3	4.905069	5.011903	4.779617	4.999639	4.803263	5.114048

Elem	Sr4077
Units	ppm
Avg	**5.116494**
Stddev	.040419
%RSD	.7899807
#1	5.133188
#2	5.070402
#3	5.145893

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2765.352**	**59668.20**	**9457.832**	**2000.874**	**3208.294**
Stddev	4.331	52.48	4.562	.869	3.943
%RSD	.1565996	.0879524	.0482361	.0434140	.1228870
#1	2760.763	59696.97	9462.822	2000.527	3211.012
#2	2769.366	59700.01	9456.802	2001.863	3210.097
#3	2765.928	59607.63	9453.874	2000.233	3203.772

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB003 Acquired: 1/23/2025 16:31:49 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB003 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002080**	**.0009103**	**.0000676**	**-.001026**	**.0004583**	**.0024915**	**-.001178**
Stddev	.000627	.0004448	.0007082	.002704	.0010017	.0087579	.000029
%RSD	30.12928	48.86901	1047.800	263.6180	218.5688	351.5105	2.470203
#1	-.001785	.0004109	-.000733	.000220	.0010627	.0118333	-.001202
#2	-.002800	.0012640	.000323	-.004128	.0010102	.0011745	-.001186
#3	-.001656	.0010559	.000613	.000831	-.000698	-.005533	-.001145

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000440**	**-.000005**	**.0180588**	**.0009067**	**.0001305**	**.0032238**	**.0121256**
Stddev	.0000080	.000046	.0049086	.0001365	.0002246	.0026827	.0034363
%RSD	18.25168	842.8335	27.18126	15.05741	172.1107	83.21697	28.33911
#1	.0000427	-.000046	.0149342	.0009079	.0002291	.0003035	.0106504
#2	.0000367	.000044	.0155257	.0010426	-.000127	.0037888	.0160531
#3	.0000526	-.000014	.0237165	.0007695	.000289	.0055790	.0096732

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002191**	**.0188867**	**.0000889**	**-.000525**	**.0873099**	**.0011161**	**-.000538**
Stddev	.0001829	.0084093	.0003810	.000276	.4808723	.0013167	.000502
%RSD	83.45699	44.52494	428.4437	52.52993	550.7647	117.9733	93.16931
#1	.0001136	.0248754	.0000087	-.000837	.3015353	-.000345	-.001105
#2	.0001135	.0225119	-.000246	-.000422	-.463445	.002211	-.000359
#3	.0004303	.0092729	.000504	-.000315	.423840	.001483	-.000151

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.097296**	**.0021651**	**.0041492**	**-.000001**	**.0041101**	**.0027828**	**-.000120**
Stddev	.032585	.0011114	.0005085	.000154	.0036894	.0008966	.000508
%RSD	33.49054	51.33293	12.25651	11667.60	89.76377	32.22043	422.0422
#1	-.117378	.0012622	.0046803	-.000035	.0066155	.0021719	-.000689
#2	-.059699	.0018267	.0041005	-.000136	.0058413	.0023643	.000289
#3	-.114810	.0034063	.0036667	.000167	-.000127	.0038121	.000039

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB003 Acquired: 1/23/2025 16:31:49 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB003 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005491	-.003315	.0001055
Stddev	.0005136	.000492	.0000352
%RSD	93.53682	14.85680	33.31653
#1	-.000044	-.002818	.0000810
#2	.000835	-.003803	.0001458
#3	.000856	-.003322	.0000898

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3525.331	71567.22	10063.34	2440.539	4449.086
Stddev	4.682	291.97	45.64	15.755	5.110
%RSD	.1327989	.4079695	.4535700	.6455368	.1148440
#1	3530.644	71473.95	10039.59	2441.411	4454.281
#2	3523.535	71333.28	10034.47	2424.367	4444.066
#3	3521.813	71894.43	10115.96	2455.840	4448.910

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-03 Acquired: 1/23/2025 16:35:58 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0475514	-.002293	1.484837	.0237860	.0112168	47.38291	1.197041
Stddev	.0015968	.000771	.002345	.0006850	.0025692	.01014	.003995
%RSD	3.358014	33.63376	.1579479	2.879826	22.90462	.0213932	.3337167
#1	.0457630	-.003171	1.482585	.0239680	.0106397	47.39381	1.201247
#2	.0480573	-.001724	1.484661	.0243617	.0089852	47.38115	1.196578
#3	.0488340	-.001985	1.487265	.0230284	.0140254	47.37376	1.193298

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067702	.0034431	18.31277	.1075393	.1635274	.0461122	99.97593
Stddev	.0000447	.0000757	.00659	.0001898	.0004082	.0010858	.09376
%RSD	.6600847	2.199247	.0359968	.1764523	.2496310	2.354746	.0937827
#1	.0068109	.0033577	18.32031	.1077512	.1633078	.0468446	100.0666
#2	.0067224	.0034698	18.30808	.1074815	.1632759	.0448647	99.8793
#3	.0067774	.0035019	18.30993	.1073852	.1639984	.0466273	99.9819

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.64763	8.075878	.0672875	.0034013	-.211338	.2002366	.2857194
Stddev	.03053	.025073	.0007736	.0001776	.314567	.0026166	.0005990
%RSD	.2236864	.3104666	1.149766	5.221023	148.8453	1.306733	.2096532
#1	13.67974	8.062459	.0665681	.0035193	-.412003	.2022751	.2860366
#2	13.64415	8.104804	.0681058	.0031971	.151202	.2011485	.2860932
#3	13.61899	8.060370	.0671885	.0034875	-.373214	.1972860	.2850285

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.466669	2.799790	.4175499	.0065665	2.166254	6.123212	.0062044
Stddev	.005087	.003799	.0006673	.0003667	.001475	.005398	.0004504
%RSD	.2062190	.1356850	.1598172	5.584084	.0680711	.0881572	7.260054
#1	2.464130	2.798948	.4182825	.0068155	2.164855	6.120220	.0060827
#2	2.463352	2.803939	.4173905	.0061454	2.166114	6.129444	.0058273
#3	2.472526	2.796483	.4169767	.0067385	2.167794	6.119973	.0067032

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-03 Acquired: 1/23/2025 16:35:58 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8909913	.0260805	.0642412
Stddev	.0016441	.0015140	.0001522
%RSD	.1845280	5.805154	.2369791
#1	.8928591	.0267998	.0643088
#2	.8897631	.0271008	.0643478
#3	.8903516	.0243410	.0640668

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3640.198	75451.27	10880.39	2569.562	4139.481
Stddev	6.778	62.53	15.73	5.866	8.454
%RSD	.1861916	.0828687	.1445450	.2282788	.2042370
#1	3644.666	75410.11	10892.56	2563.650	4148.537
#2	3643.529	75523.22	10885.97	2575.380	4138.112
#3	3632.400	75420.47	10862.63	2569.657	4131.795

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-04 Acquired: 1/23/2025 16:39:55 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE0D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0499674**	**-.005139**	**1.466795**	**.0235545**	**.0106194**	**47.38698**	**1.203126**
Stddev	.0017356	.001121	.001254	.0009958	.0016254	.11917	.002007
%RSD	3.473360	21.80807	.0854989	4.227854	15.30546	.2514789	.1667968
#1	.0484610	-.006432	1.467393	.0239859	.0088353	47.25527	1.200941
#2	.0518652	-.004552	1.467638	.0224157	.0120159	47.41835	1.204887
#3	.0495759	-.004435	1.465354	.0242620	.0110071	47.48733	1.203551

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0065302**	**.0033153**	**18.28248**	**.1068581**	**.1618485**	**.0517760**	**100.1045**
Stddev	.0001155	.0000517	.06009	.0004957	.0002041	.0012937	.2672
%RSD	1.768501	1.559404	.3286614	.4638694	.1261117	2.498593	.2669411
#1	.0065363	.0032868	18.21312	.1068849	.1619092	.0532694	99.8000
#2	.0064119	.0032842	18.31565	.1063496	.1620153	.0510588	100.2134
#3	.0066426	.0033750	18.31866	.1073399	.1616209	.0509997	100.3001

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.69826**	**8.132553**	**.0659373**	**.0042843**	**-.129912**	**.1999023**	**.2906074**
Stddev	.02020	.022858	.0006931	.0005041	.200651	.0027844	.0041251
%RSD	.1474818	.2810735	1.051179	11.76512	154.4509	1.392893	1.419474
#1	13.67531	8.139065	.0659509	.0037462	.003052	.2009160	.2863939
#2	13.70609	8.151450	.0652375	.0043610	-.032075	.1967531	.2946380
#3	13.71338	8.107146	.0666235	.0047455	-.360715	.2020379	.2907902

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.398753**	**2.758014**	**.4177256**	**.0062746**	**2.104700**	**6.121331**	**.0071716**
Stddev	.058957	.003127	.0009788	.0001262	.005122	.034615	.0002635
%RSD	2.457800	.1133739	.2343062	2.010601	.2433367	.5654895	3.674466
#1	2.393495	2.758792	.4166073	.0061296	2.102594	6.107377	.0074238
#2	2.342601	2.754572	.4181436	.0063353	2.110538	6.095871	.0068981
#3	2.460162	2.760679	.4184260	.0063589	2.100966	6.160746	.0071930

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-04 Acquired: 1/23/2025 16:39:55 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE0D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8883512	.0257885	.0644092
Stddev	.0040919	.0016161	.0003199
%RSD	.4606126	6.266886	.4966723
#1	.8850630	.0253765	.0641555
#2	.8870569	.0244182	.0647686
#3	.8929337	.0275707	.0643036

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3696.511	76347.73	11084.00	2590.172	4216.324
Stddev	1.699	84.36	50.87	3.661	4.399
%RSD	.0459701	.1105007	.4589411	.1413591	.1043392
#1	3694.816	76251.71	11060.96	2590.921	4211.396
#2	3698.215	76381.56	11142.31	2593.401	4219.856
#3	3696.502	76409.94	11048.73	2586.194	4217.720

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-03LX5 Acquired: 1/23/2025 16:43:53 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE0L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072970	.0010551	.3031894	.0052426	.0015337	9.730197	.2409143
Stddev	.0010365	.0026660	.0007444	.0027655	.0004576	.051939	.0009919
%RSD	14.20413	252.6633	.2455297	52.75014	29.83903	.5337874	.4117076
#1	.0064211	.0036173	.3024550	.0070072	.0010319	9.757706	.2419690
#2	.0084413	.0012520	.3039434	.0020554	.0016414	9.670290	.2407735
#3	.0070287	-.001704	.3031698	.0066651	.0019280	9.762596	.2400004

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014859	.0006720	3.797886	.0229076	.0325789	.0129443	20.76461
Stddev	.0000436	.0000455	.023967	.0001706	.0003311	.0028046	.11803
%RSD	2.935643	6.770631	.6310729	.7448394	1.016304	21.66639	.5684282
#1	.0015099	.0006600	3.820737	.0227203	.0324648	.0098224	20.87835
#2	.0015123	.0007223	3.772940	.0229483	.0329520	.0152507	20.64271
#3	.0014356	.0006337	3.799981	.0230542	.0323200	.0137599	20.77279

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.815062	1.701612	.0132174	.0001680	-.263982	.0436835	.0602421
Stddev	.005998	.015867	.0000947	.0002535	.205014	.0009147	.0015140
%RSD	.2130839	.9324488	.7161636	150.9127	77.66236	2.093963	2.513260
#1	2.820587	1.685519	.0131774	-.000086	-.292711	.0440456	.0595048
#2	2.808682	1.702075	.0131494	.000168	-.453116	.0426432	.0619836
#3	2.815919	1.717242	.0133255	.000422	-.046118	.0443617	.0592380

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3842082	.5690727	.0865445	.0012331	.4390638	1.340129	.0001537
Stddev	.0123351	.0011393	.0005292	.0002012	.0052192	.005888	.0003414
%RSD	3.210520	.2001971	.6114629	16.31647	1.188705	.4393666	222.1076
#1	.3962979	.5699185	.0870803	.0010012	.4405253	1.340746	.0005474
#2	.3846852	.5677772	.0860222	.0013365	.4332697	1.345685	-.000025
#3	.3716416	.5695224	.0865310	.0013614	.4433965	1.333957	-.000061

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-03LX5 Acquired: 1/23/2025 16:43:53 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE0L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1905677	.0026901	.0134107
Stddev	.0013129	.0006482	.0000684
%RSD	.6889233	24.09517	.5104032
#1	.1917885	.0022717	.0134717
#2	.1907357	.0034367	.0134237
#3	.1891789	.0023618	.0133367

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3493.301	73749.67	10236.78	2515.685	4276.662
Stddev	3.220	35.25	48.15	6.684	3.407
%RSD	.0921876	.0477935	.4703908	.2656930	.0796761
#1	3496.036	73740.09	10283.86	2521.358	4279.237
#2	3489.752	73788.72	10187.63	2517.381	4272.798
#3	3494.114	73720.20	10238.84	2508.317	4277.951

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-05 Acquired: 1/23/2025 16:47:57 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE0S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1173360**	**.1016051**	**1.480862**	**.1883165**	**.1763314**	**48.02876**	**4.487097**
Stddev	.0006304	.0017235	.001609	.0005745	.0010762	.13834	.016768
%RSD	.5372319	1.696223	.1086253	.3050759	.6103396	.2880260	.3737029
#1	.1166109	.1028530	1.480823	.1876855	.1768982	48.13347	4.490826
#2	.1176435	.0996387	1.482490	.1888094	.1750903	48.08087	4.501687
#3	.1177536	.1023238	1.479273	.1884545	.1770058	47.87194	4.468778

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1012452**	**.1007175**	**17.25289**	**.5275924**	**1.137145**	**.4924274**	**96.07104**
Stddev	.0006014	.0003817	.04680	.0003349	.002772	.0057189	.30173
%RSD	.5939770	.3789658	.2712602	.0634829	.2437270	1.161367	.3140722
#1	.1019382	.1011414	17.27323	.5279789	1.139758	.4986149	96.21433
#2	.1008594	.1004011	17.28608	.5273882	1.137437	.4873357	96.27443
#3	.1009381	.1006101	17.19936	.5274101	1.134238	.4913316	95.72436

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.59400**	**7.562807**	**1.052008**	**.0727532**	**.0071627**	**1.137545**	**1.138958**
Stddev	.04162	.017502	.001597	.0004120	.2521248	.012203	.008420
%RSD	.3061934	.2314256	.1518278	.5662912	3519.980	1.072730	.7392432
#1	13.61212	7.582973	1.052755	.0727844	.2818056	1.151610	1.135455
#2	13.62350	7.553871	1.053094	.0731487	-.213797	1.131242	1.148564
#3	13.54639	7.551577	1.050174	.0723265	-.046520	1.129782	1.132856

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.259446**	**2.666520**	**.3952043**	**.0058503**	**2.047635**	**5.991437**	**.0059168**
Stddev	.025192	.008073	.0014031	.0002876	.006881	.049108	.0007261
%RSD	1.114958	.3027652	.3550236	4.916066	.3360642	.8196286	12.27218
#1	2.267148	2.675791	.3949378	.0058953	2.053114	6.047465	.0052826
#2	2.279888	2.662730	.3967214	.0055428	2.039912	5.955858	.0057588
#3	2.231303	2.661040	.3939535	.0061127	2.049881	5.970989	.0067088

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-05 Acquired: 1/23/2025 16:47:57 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE0S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8631779	.0241981	.0594311
Stddev	.0066215	.0002837	.0004211
%RSD	.7671121	1.172360	.7085611
#1	.8708103	.0239318	.0597137
#2	.8589689	.0241660	.0596326
#3	.8597545	.0244964	.0589471

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3736.015	76132.56	10567.49	2577.474	4279.850
Stddev	5.250	128.29	71.11	16.869	4.197
%RSD	.1405262	.1685110	.6728851	.6544700	.0980739
#1	3741.632	76177.42	10485.53	2586.434	4277.708
#2	3731.231	75987.87	10612.77	2558.016	4277.155
#3	3735.183	76232.40	10604.16	2587.972	4284.686

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-06 Acquired: 1/23/2025 16:51:49 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0410009**	**-.001080**	**1.035946**	**.0208206**	**.0103909**	**42.64601**	**.9668134**
Stddev	.0010967	.001345	.000926	.0048116	.0010599	.56706	.0148961
%RSD	2.674781	124.4366	.0893883	23.11008	10.19983	1.329686	1.540745
#1	.0422607	-.002623	1.034936	.0215804	.0092792	42.77162	.9678420
#2	.0402600	-.000157	1.036756	.0252071	.0105036	43.13974	.9811686
#3	.0404820	-.000462	1.036144	.0156742	.0113900	42.02668	.9514296

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043810**	**.0029511**	**16.33965**	**.1000575**	**.1542675**	**.0463665**	**92.14720**
Stddev	.0000666	.0000789	.20386	.0012547	.0001713	.0022345	1.23685
%RSD	1.519759	2.671777	1.247633	1.253957	.1110287	4.819271	1.342250
#1	.0043967	.0028787	16.38976	.1007040	.1541343	.0453980	92.55583
#2	.0044383	.0029394	16.51378	.1008571	.1544607	.0489219	93.12802
#3	.0043079	.0030351	16.11541	.0986114	.1542074	.0447797	90.75775

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.007298**	**8.001824**	**.0600004**	**.0028205**	**.0742239**	**.1847656**	**.2834015**
Stddev	.120386	.088951	.0006193	.0006176	.2176690	.0034464	.0011093
%RSD	1.336544	1.111635	1.032247	21.89578	293.2601	1.865276	.3914247
#1	9.019252	8.058410	.0595526	.0026725	.3054233	.1832543	.2821397
#2	9.121261	8.047767	.0597415	.0034986	-.126757	.1887094	.2842232
#3	8.881380	7.899297	.0607072	.0022903	.044005	.1823331	.2838416

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.240903**	**2.216881**	**.3808468**	**.0056094**	**1.739272**	**6.386502**	**.0059816**
Stddev	.007040	.009337	.0058329	.0004176	.013499	.043386	.0006155
%RSD	.3141464	.4211666	1.531562	7.444605	.7761276	.6793397	10.28930
#1	2.240057	2.208739	.3822343	.0051563	1.727268	6.347381	.0056259
#2	2.248328	2.214832	.3858608	.0056930	1.736662	6.433164	.0056266
#3	2.234325	2.227072	.3744452	.0059788	1.753885	6.378961	.0066923

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-06 Acquired: 1/23/2025 16:51:49 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.046737	.0276230	.0501638
Stddev	.012408	.0012785	.0006377
%RSD	1.185360	4.628241	1.271233
#1	1.037815	.0280458	.0503576
#2	1.060906	.0286365	.0506821
#3	1.041490	.0261867	.0494517

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3619.537	77711.18	10834.62	2562.321	4231.253
Stddev	3.820	960.76	45.12	30.749	7.093
%RSD	.1055298	1.236317	.4164728	1.200038	.1676265
#1	3623.273	77176.17	10844.89	2542.094	4239.395
#2	3615.639	77137.03	10785.25	2547.164	4227.950
#3	3619.700	78820.33	10873.73	2597.706	4226.414

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-07 Acquired: 1/23/2025 16:55:47 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0532808	-.002007	1.126708	.0266600	.0114113	54.96203	1.002831
Stddev	.0016482	.000958	.000572	.0019417	.0003346	.69538	.012284
%RSD	3.093343	47.75379	.0507697	7.283049	2.932666	1.265192	1.224902
#1	.0550531	-.001738	1.126428	.0245598	.0114756	55.75774	1.016902
#2	.0529951	-.001212	1.126331	.0283898	.0110491	54.65736	.997341
#3	.0517941	-.003071	1.127367	.0270302	.0117090	54.47099	.994249

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051485	.0035559	15.92550	.1116791	.1594016	.0552391	116.8995
Stddev	.0001592	.0001225	.15711	.0002408	.0004743	.0012266	1.2916
%RSD	3.091405	3.445844	.9865026	.2156468	.2975351	2.220511	1.104865
#1	.0049762	.0034161	16.10634	.1119572	.1597023	.0551413	118.3849
#2	.0051789	.0036066	15.84749	.1115401	.1588549	.0565117	116.2724
#3	.0052902	.0036448	15.82267	.1115401	.1596477	.0540644	116.0413

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.977993	10.53608	.0737667	.0040556	-.108125	.2161643	.2874606
Stddev	.090578	.09507	.0004679	.0001547	.053372	.0010297	.0024317
%RSD	1.135349	.9022960	.6343049	3.815723	49.36153	.4763460	.8459056
#1	8.082189	10.64571	.0742013	.0039899	-.150550	.2153304	.2887217
#2	7.933754	10.47638	.0738274	.0039445	-.125626	.2173152	.2846574
#3	7.918036	10.48616	.0732714	.0042324	-.048200	.2158471	.2890026

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.462229	2.273313	.4852444	.0061644	2.041864	7.236372	.0073479
Stddev	.083851	.006610	.0076250	.0001810	.002900	.038882	.0008444
%RSD	2.421873	.2907544	1.571372	2.936144	.1420099	.5373094	11.49151
#1	3.540621	2.280753	.4939944	.0063036	2.042896	7.200989	.0064118
#2	3.373820	2.268118	.4817174	.0059598	2.038590	7.230130	.0080521
#3	3.472247	2.271067	.4800216	.0062298	2.044107	7.277997	.0075797

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-07 Acquired: 1/23/2025 16:55:47 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.126737	.0357759	.0594641
Stddev	.004457	.0002178	.0008625
%RSD	.3955353	.6088377	1.450501
#1	1.127961	.0357863	.0604442
#2	1.121796	.0359883	.0591274
#3	1.130453	.0355530	.0588207

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3684.800	74776.67	10968.76	2541.857	4202.520
Stddev	8.446	366.77	94.43	16.885	7.084
%RSD	.2292152	.4904900	.8608826	.6642601	.1685761
#1	3692.725	74412.82	11076.28	2523.941	4209.868
#2	3685.761	74770.89	10930.73	2544.156	4201.961
#3	3675.915	75146.30	10899.28	2557.474	4195.733

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-08 Acquired: 1/23/2025 16:59:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0405684	-.002865	1.149095	.0210590	.0101745	42.65329	1.063361
Stddev	.0010173	.002197	.000463	.0024450	.0006822	.28777	.009567
%RSD	2.507530	76.67024	.0402581	11.61009	6.704791	.6746817	.8997012
#1	.0405697	-.002860	1.149101	.0203009	.0097183	42.84023	1.064309
#2	.0415850	-.000671	1.148630	.0190829	.0098465	42.32191	1.053355
#3	.0395505	-.005065	1.149555	.0237932	.0109587	42.79775	1.072419

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051949	.0035706	16.72397	.0974502	.1165061	.0531787	95.27682
Stddev	.0000889	.0000557	.11485	.0007772	.0002369	.0015186	.58356
%RSD	1.710763	1.560414	.6867524	.7975273	.2033557	2.855563	.6124851
#1	.0051103	.0035873	16.77498	.0972078	.1162743	.0536873	95.60755
#2	.0051869	.0036160	16.59245	.0968231	.1164962	.0543778	94.60303
#3	.0052875	.0035084	16.80448	.0983197	.1167478	.0514712	95.61989

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.878331	7.399519	.0628207	.0021388	-.206173	.1947030	.5837780
Stddev	.055147	.013513	.0003409	.0002361	.347483	.0006908	.0063052
%RSD	.6211434	.1826176	.5426524	11.04110	168.5398	.3548102	1.080061
#1	8.887842	7.415040	.0624831	.0019484	.169591	.1954707	.5846995
#2	8.819047	7.390374	.0631648	.0020650	-.515899	.1941313	.5770628
#3	8.928104	7.393144	.0628140	.0024031	-.272211	.1945071	.5895717

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.620920	3.267594	.3930251	.0056721	2.230729	6.693254	.0071648
Stddev	.017255	.009047	.0028433	.0002240	.002952	.011506	.0001124
%RSD	.6583646	.2768684	.7234409	3.949284	.1323331	.1719017	1.569320
#1	2.607799	3.258232	.3947270	.0058413	2.230673	6.690545	.0072893
#2	2.640466	3.268260	.3897427	.0054180	2.227806	6.683345	.0070706
#3	2.614494	3.276289	.3946058	.0057569	2.233709	6.705873	.0071345

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-08 Acquired: 1/23/2025 16:59:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8579183	.0248848	.0586282
Stddev	.0004255	.0014210	.0003427
%RSD	.0495917	5.710095	.5845255
#1	.8574399	.0237642	.0588121
#2	.8582544	.0244072	.0582328
#3	.8580606	.0264830	.0588397

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3763.291	76478.55	10763.03	2632.381	4274.703
Stddev	6.889	269.57	22.59	14.926	1.389
%RSD	.1830609	.3524800	.2098908	.5670013	.0324842
#1	3756.460	76261.43	10757.57	2631.535	4273.338
#2	3770.237	76780.27	10743.66	2647.712	4276.114
#3	3763.175	76393.94	10787.84	2617.897	4274.657

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-09 Acquired: 1/23/2025 17:03:43 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0732671	-.005523	3.259191	.0298360	.0133344	53.29853	1.865170
Stddev	.0020985	.001049	.008435	.0025054	.0023261	.30186	.014747
%RSD	2.864216	19.00129	.2588134	8.397259	17.44419	.5663549	.7906460
#1	.0708884	-.006707	3.255781	.0326147	.0106592	53.27188	1.869296
#2	.0748567	-.004709	3.252995	.0291437	.0144640	53.01088	1.848800
#3	.0740563	-.005152	3.268798	.0277494	.0148800	53.61283	1.877415

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096938	.0073009	26.71449	.1284419	.2161729	.0893035	139.0419
Stddev	.0001706	.0000397	.16664	.0005599	.0005322	.0013954	.7195
%RSD	1.759769	.5438729	.6237724	.4359423	.2461869	1.562541	.5174641
#1	.0097880	.0072556	26.59434	.1278554	.2163415	.0907686	138.6924
#2	.0097966	.0073298	26.64441	.1284993	.2155769	.0891518	138.5640
#3	.0094969	.0073173	26.90472	.1289709	.2166004	.0879902	139.8694

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.09370	9.323373	.1074691	.0061372	-.183585	.2862298	.6674033
Stddev	.08451	.080996	.0002186	.0001844	.390721	.0025580	.0037084
%RSD	.3507408	.8687377	.2034414	3.005243	212.8280	.8936779	.5556437
#1	24.16034	9.268861	.1074683	.0061011	-.613067	.2832861	.6642940
#2	24.12212	9.284813	.1072508	.0059735	.150830	.2874916	.6664083
#3	23.99865	9.416444	.1076881	.0063371	-.088519	.2879117	.6715077

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.885688	5.498928	.5741578	.0118850	3.553124	7.171938	.0095885
Stddev	.084191	.020332	.0041031	.0002537	.020539	.035198	.0018752
%RSD	2.166691	.3697451	.7146356	2.134550	.5780471	.4907709	19.55699
#1	3.869285	5.512463	.5727725	.0119303	3.541615	7.134414	.0078817
#2	3.810905	5.475548	.5709266	.0116117	3.540920	7.177176	.0092879
#3	3.976873	5.508775	.5787743	.0121130	3.576837	7.204223	.0115959

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-09 Acquired: 1/23/2025 17:03:43 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9468945	.0327961	.0896191
Stddev	.0039867	.0006647	.0006682
%RSD	.4210269	2.026667	.7455912
#1	.9429858	.0327638	.0895027
#2	.9467429	.0321481	.0890168
#3	.9509548	.0334763	.0903379

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3961.080	81051.09	11680.39	2755.665	4147.232
Stddev	8.286	107.75	69.45	7.621	3.505
%RSD	.2091842	.1329364	.5946023	.2765673	.0845124
#1	3958.083	81116.10	11745.63	2763.961	4146.319
#2	3970.447	81110.45	11607.38	2754.060	4151.103
#3	3954.709	80926.72	11688.16	2748.974	4144.274

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-10 Acquired: 1/23/2025 17:07:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0471217	-.008778	1.671652	-.003048	.0154971	15.64962
Stddev	.0066678	.000351	.002363	.002087	.0013863	.01480
%RSD	14.15009	3.997145	.1413836	68.46239	8.945713	.0945620
#1	.0458057	-.008900	1.669057	-.005423	.0154624	15.66409
#2	.0543493	-.009051	1.673682	-.002211	.0141284	15.63451
#3	.0412100	-.008382	1.672218	-.001510	.0169004	15.65025

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 30.33971	.0020807	.0177801	F 2139.074	.0704431	.0434608
Stddev	.19335	.0000191	.0000582	15.023	.0006106	.0005704
%RSD	.6372690	.9187166	.3275386	.7023029	.8668154	1.312429
#1	30.22648	.0020586	.0177616	2133.439	.0701734	.0431515
#2	30.56296	.0020926	.0178454	2127.684	.0700138	.0441191
#3	30.22970	.0020908	.0177334	2156.100	.0711421	.0431119

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1289443	80.99494	4.950073	F 1217.865	.0657175	.0004051
Stddev	.0022305	.16638	.016300	7.460	.0009916	.0002702
%RSD	1.729849	.2054165	.3292824	.6125587	1.508875	66.70037
#1	.1298934	81.14023	4.963418	1212.696	.0657669	.0004703
#2	.1263961	80.81344	4.931907	1214.481	.0647021	.0006368
#3	.1305432	81.03115	4.954896	1226.417	.0666835	.0001083

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.191269	.1505494	3.823477	1.772666	2.705312	.3853894
Stddev	.343676	.0015841	.022437	.050871	.008258	.0014982
%RSD	179.6821	1.052213	.5868231	2.869740	.3052535	.3887451
#1	.147994	.1488627	3.843831	1.826971	2.695812	.3858617
#2	-.539194	.1520057	3.799418	1.764906	2.709346	.3837120
#3	-.182607	.1507799	3.827183	1.726121	2.710777	.3865945

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-10 Acquired: 1/23/2025 17:07:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0153793	F 19.21831	3.704469	-.000900	.3016514	.0685053
Stddev	.0002955	.02038	.018738	.001165	.0003929	.0016905
%RSD	1.921208	.1060370	.5058249	129.4629	.1302396	2.467742
#1	.0150542	19.20006	3.684526	.000327	.3017357	.0687445
#2	.0154520	19.24030	3.721709	-.001992	.3019953	.0700634
#3	.0156316	19.21457	3.707171	-.001035	.3012233	.0667078

Elem	Sr4077
Units	ppm
Avg	1.023584
Stddev	.004706
%RSD	.4597189
#1	1.028673
#2	1.019391
#3	1.022688

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2704.734	57073.47	9274.421	1875.652	2866.034
Stddev	.969	166.42	39.853	7.797	1.774
%RSD	.0358323	.2915939	.4297075	.4156707	.0618947
#1	2704.270	57092.33	9318.598	1874.255	2865.160
#2	2704.085	57229.67	9263.495	1884.054	2868.075
#3	2705.848	56898.43	9241.171	1868.650	2864.865

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-11 Acquired: 1/23/2025 17:12:10 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1185740**	**-.003523**	**2.004865**	**.0476870**	**.0228674**	**92.70912**	**4.065619**
Stddev	.0009626	.002482	.005363	.0040739	.0002360	.81918	.037067
%RSD	.8118017	70.45404	.2674914	8.542945	1.032271	.8835971	.9117273
#1	.1174870	-.000671	1.999024	.0506701	.0227496	93.65460	4.108346
#2	.1189164	-.005191	2.006004	.0493454	.0231391	92.26088	4.046436
#3	.1193186	-.004706	2.009567	.0430455	.0227133	92.21189	4.042074

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0074335**	**.0104152**	**64.11925**	**.2103357**	**.2294928**	**.1393085**	**219.5918**
Stddev	.0001132	.0001401	.53525	.0008495	.0002891	.0041985	1.8702
%RSD	1.522516	1.345045	.8347713	.4038857	.1259539	3.013799	.8516686
#1	.0073542	.0103090	64.73633	.2101824	.2291647	.1379357	221.7293
#2	.0073832	.0105740	63.84074	.2095733	.2297101	.1359683	218.7892
#3	.0075631	.0103627	63.78068	.2112514	.2296036	.1440215	218.2568

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.64059**	**33.53787**	**.1400349**	**.0069787**	**.1338976**	**.3676630**	**1.052032**
Stddev	.09450	.23616	.0000640	.0008891	.1635576	.0035709	.006058
%RSD	.6454931	.7041529	.0457020	12.74032	122.1513	.9712315	.5758657
#1	14.74822	33.80627	.1401039	.0080030	.3194513	.3635785	1.058517
#2	14.60236	33.44539	.1399775	.0064056	.0715912	.3701935	1.051061
#3	14.57120	33.36195	.1400234	.0065276	.0106502	.3692170	1.046518

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.574946**	**3.987767**	**.9124028**	**.0103714**	**2.474997**	**9.188491**	**.0109455**
Stddev	.084679	.013177	.0101368	.0001381	.010028	.029485	.0019658
%RSD	1.518921	.3304327	1.111000	1.331583	.4051924	.3208919	17.95942
#1	5.668069	3.972565	.9240550	.0102966	2.463669	9.166481	.0124003
#2	5.554204	3.995927	.9075383	.0102867	2.482744	9.221991	.0117270
#3	5.502566	3.994808	.9056151	.0105307	2.478577	9.177000	.0087092

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-11 Acquired: 1/23/2025 17:12:10 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.403261	.0515661	.1030864
Stddev	.004831	.0005535	.0010210
%RSD	.3442865	1.073289	.9903958
#1	1.402780	.0522011	.1042550
#2	1.408315	.0513105	.1026374
#3	1.398688	.0511866	.1023669

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3567.348	73748.33	10998.33	2514.105	3886.428
Stddev	2.437	243.07	84.59	6.647	2.998
%RSD	.0683044	.3295884	.7691034	.2643765	.0771498
#1	3566.316	73524.35	11089.01	2509.767	3889.706
#2	3570.131	73713.83	10921.55	2510.791	3883.825
#3	3565.597	74006.80	10984.42	2521.757	3885.752

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-12 Acquired: 1/23/2025 17:16:08 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0621993	-.001080	.3619997	.0309791	.0167960	62.68601	1.966864
Stddev	.0007200	.000146	.0000431	.0012723	.0006939	.43091	.013141
%RSD	1.157614	13.51734	.0119210	4.106849	4.131153	.6874043	.6681073
#1	.0627816	-.000912	.3619965	.0300656	.0166301	62.22617	1.952821
#2	.0624220	-.001175	.3620444	.0324322	.0175578	63.08052	1.978863
#3	.0613942	-.001154	.3619583	.0304393	.0162001	62.75135	1.968909

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048817	.0046310	35.28762	.1154630	.1060921	.1475925	143.8686
Stddev	.0000418	.0000126	.20222	.0004477	.0003557	.0023316	1.0062
%RSD	.8568349	.2729382	.5730497	.3877403	.3352760	1.579774	.6993598
#1	.0049236	.0046450	35.05851	.1154264	.1061444	.1461989	142.7423
#2	.0048816	.0046205	35.44120	.1159280	.1057131	.1462943	144.6786
#3	.0048399	.0046275	35.36315	.1150348	.1064187	.1502843	144.1849

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.799753	13.43509	.1045941	.0032311	.0964927	.2205938	.5977352
Stddev	.033093	.10257	.0005004	.0000597	.1449380	.0007839	.0034678
%RSD	.5705952	.7634410	.4783889	1.847888	150.2062	.3553693	.5801505
#1	5.763264	13.31738	.1044261	.0032300	.0063676	.2208129	.6006502
#2	5.827824	13.50528	.1041993	.0032913	.2636828	.2212448	.5939002
#3	5.808172	13.48261	.1051568	.0031719	.0194277	.2197236	.5986551

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.305835	5.782017	.6061372	.0074082	2.687121	7.959283	.0079260
Stddev	.060328	.013754	.0050478	.0002397	.002164	.028535	.0009551
%RSD	.8257540	.2378807	.8327795	3.236157	.0805393	.3585117	12.04982
#1	7.236212	5.796141	.6005827	.0076824	2.684687	7.980479	.0070283
#2	7.338646	5.768664	.6104443	.0073038	2.687848	7.926838	.0089296
#3	7.342645	5.781247	.6073846	.0072383	2.688829	7.970532	.0078200

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-12 Acquired: 1/23/2025 17:16:08 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.200235	.0384609	.1445811
Stddev	.000239	.0009961	.0008295
%RSD	.0199516	2.590003	.5737133
#1	1.200382	.0373337	.1436947
#2	1.199959	.0392226	.1453386
#3	1.200365	.0388266	.1447101

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3668.701	75427.09	10967.91	2562.506	4129.218
Stddev	4.810	328.36	35.80	3.984	6.930
%RSD	.1311157	.4353290	.3264185	.1554900	.1678279
#1	3665.185	75796.15	10946.98	2565.926	4122.779
#2	3674.183	75317.78	11009.25	2563.463	4136.552
#3	3666.736	75167.32	10947.50	2558.131	4128.324

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-13 Acquired: 1/23/2025 17:20:06 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0610541	-.002190	.3289073	.0284493	.0132785	49.62248	2.330904
Stddev	.0013116	.000624	.0015989	.0016494	.0013661	.48940	.026685
%RSD	2.148198	28.49958	.4861277	5.797698	10.28841	.9862462	1.144833
#1	.0625658	-.002878	.3307514	.0268341	.0143133	49.99750	2.351804
#2	.0603775	-.001661	.3279079	.0283828	.0117299	49.80107	2.340063
#3	.0602190	-.002031	.3280626	.0301309	.0137922	49.06886	2.300846

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051164	.0056409	63.32715	.1047936	.1275255	.1280413	127.0347
Stddev	.0001176	.0001606	.61304	.0003858	.0000305	.0014489	1.1969
%RSD	2.298921	2.846380	.9680517	.3681940	.0238957	1.131622	.9422122
#1	.0050825	.0055342	63.82467	.1049878	.1274928	.1268556	127.8429
#2	.0050195	.0055629	63.51447	.1043492	.1275531	.1296564	127.6015
#3	.0052473	.0058255	62.64230	.1050437	.1275305	.1276120	125.6596

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.210297	22.05556	.0987879	.0030224	-.404788	.1893770	.5643526
Stddev	.078385	.14410	.0000788	.0005967	.246074	.0032109	.0034707
%RSD	.9547190	.6533457	.0798035	19.74154	60.79070	1.695521	.6149883
#1	8.269058	22.14631	.0988115	.0034566	-.494173	.1861769	.5679855
#2	8.240538	22.13098	.0988522	.0032686	-.593677	.1925986	.5640016
#3	8.121296	21.88941	.0986999	.0023420	-.126515	.1893554	.5610708

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.361292	4.781262	.5457960	.0068714	3.156598	7.368538	.0081849
Stddev	.070333	.021673	.0063322	.0003394	.009252	.013460	.0007565
%RSD	.9554500	.4533005	1.160174	4.939978	.2931088	.1826701	9.242394
#1	7.421739	4.762803	.5500753	.0068857	3.155501	7.358548	.0079327
#2	7.378041	4.775856	.5487908	.0065250	3.147943	7.363221	.0075867
#3	7.284096	4.805126	.5385220	.0072035	3.166350	7.383844	.0090353

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-13 Acquired: 1/23/2025 17:20:06 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.076590	.0336432	.1976447
Stddev	.000811	.0012300	.0024757
%RSD	.0753689	3.656146	1.252609
#1	1.077239	.0337631	.1994130
#2	1.076851	.0348089	.1987057
#3	1.075681	.0323576	.1948153

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3640.477	74413.31	10794.03	2526.034	4083.928
Stddev	7.837	198.53	105.31	5.807	6.062
%RSD	.2152691	.2667978	.9755957	.2298821	.1484281
#1	3641.299	74450.47	10892.19	2522.683	4087.470
#2	3647.870	74198.82	10807.10	2522.679	4087.386
#3	3632.261	74590.63	10682.80	2532.739	4076.929

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-14 Acquired: 1/23/2025 17:24:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0900027	-.002131	.3049457	.0309029	.0152608	51.31451	2.095817
Stddev	.0035455	.001356	.0000583	.0030133	.0014312	1.14028	.047101
%RSD	3.939360	63.65253	.0191189	9.750837	9.378451	2.222131	2.247403
#1	.0861536	-.001300	.3049235	.0282684	.0149579	51.47519	2.099654
#2	.0907193	-.003696	.3049017	.0302518	.0140053	50.10242	2.046914
#3	.0931352	-.001397	.3050118	.0341885	.0168192	52.36593	2.140883

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042588	.0051751	41.24500	.1112390	.1217030	.1524392	135.8574
Stddev	.0001160	.0001028	.82476	.0020645	.0003586	.0009911	2.7822
%RSD	2.723214	1.985875	1.999669	1.855893	.2946344	.6501898	2.047894
#1	.0041461	.0051941	41.27540	.1117787	.1219719	.1525010	136.1219
#2	.0042523	.0052670	40.40546	.1089583	.1212959	.1514186	132.9524
#3	.0043778	.0050642	42.05415	.1129801	.1218413	.1533980	138.4979

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.676333	15.30544	.0967068	.0037218	-.022755	.1983971	.7120486
Stddev	.135785	.32796	.0001009	.0003657	.161375	.0004223	.0127388
%RSD	2.033828	2.142793	.1043603	9.825029	709.2017	.2128597	1.789035
#1	6.673545	15.30860	.0966548	.0033042	.161336	.1979120	.7128821
#2	6.541963	14.97591	.0966425	.0038765	-.089796	.1986827	.6989136
#3	6.813491	15.63181	.0968231	.0039847	-.139803	.1985965	.7243502

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.246169	5.221584	.5756585	.0067782	3.003665	7.521885	.0236610
Stddev	.155569	.024041	.0139311	.0000507	.009624	.018147	.0010451
%RSD	2.146918	.4604101	2.420033	.7480712	.3204152	.2412550	4.416992
#1	7.270999	5.235582	.5764052	.0067985	3.005166	7.506204	.0248626
#2	7.079678	5.193824	.5613690	.0067205	2.993379	7.541762	.0231575
#3	7.387830	5.235345	.5892012	.0068157	3.012451	7.517690	.0229630

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-14 Acquired: 1/23/2025 17:24:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPE9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.198608	.0349867	.1838114
Stddev	.002176	.0008681	.0039855
%RSD	.1815128	2.481302	2.168268
#1	1.198789	.0354371	.1842478
#2	1.200687	.0339859	.1796257
#3	1.196347	.0355371	.1875608

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3633.198	74651.79	10915.22	2551.899	4112.256
Stddev	12.641	1314.73	49.29	41.460	15.483
%RSD	.3479273	1.761152	.4515287	1.624667	.3765086
#1	3622.746	74498.16	10919.36	2537.729	4096.465
#2	3647.248	76036.58	10863.99	2598.586	4127.411
#3	3629.600	73420.61	10962.30	2519.382	4112.892

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-15 Acquired: 1/23/2025 17:27:59 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0590295**	**-.001380**	**.3508576**	**.0355525**	**.0224720**	**73.26705**	**1.806831**
Stddev	.0024817	.000765	.0035236	.0020212	.0008526	.55387	.012599
%RSD	4.204108	55.39040	1.004284	5.685215	3.794215	.7559642	.6973131
#1	.0593178	-.001431	.3521915	.0370847	.0216497	72.73822	1.794085
#2	.0564163	-.000592	.3468618	.0332617	.0233520	73.21996	1.807130
#3	.0613545	-.002118	.3535196	.0363111	.0224141	73.84296	1.819278

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038148**	**.0076043**	**75.83890**	**.1299415**	**.0970699**	**.4367749**	**156.6636**
Stddev	.0001921	.0000872	.46976	.0002752	.0001266	.0007478	1.0436
%RSD	5.036059	1.146357	.6194221	.2117822	.1304494	.1712089	.6661613
#1	.0039880	.0076376	75.38570	.1296256	.0971773	.4370905	155.6963
#2	.0038481	.0075053	75.80736	.1301296	.0969303	.4359210	156.5248
#3	.0036082	.0076698	76.32363	.1300692	.0971021	.4373132	157.7697

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.395536**	**33.30773**	**.1026482**	**.0041091**	**-.087761**	**.2262686**	**.8128294**
Stddev	.027697	.20305	.0007414	.0002238	.477624	.0022314	.0032807
%RSD	.6301252	.6096191	.7223150	5.446669	544.2302	.9861925	.4036175
#1	4.372160	33.10453	.1017921	.0040443	-.145872	.2288177	.8131036
#2	4.388322	33.30802	.1030700	.0039249	-.533671	.2253194	.8094201
#3	4.426127	33.51063	.1030825	.0043582	.416259	.2246687	.8159643

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.204093**	**5.279885**	**.6606145**	**.0084958**	**1.954893**	**9.170839**	**.0264199**
Stddev	.110461	.016151	.0053662	.0002098	.008970	.036003	.0004994
%RSD	1.780453	.3058897	.8122993	2.469140	.4588427	.3925758	1.890278
#1	6.107381	5.261649	.6561786	.0086004	1.944742	9.211535	.0262796
#2	6.180430	5.285621	.6590857	.0082542	1.961754	9.143136	.0260057
#3	6.324468	5.292384	.6665791	.0086327	1.958181	9.157848	.0269745

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-15 Acquired: 1/23/2025 17:27:59 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.265880	.0458771	.1963415
Stddev	.005746	.0009891	.0014116
%RSD	.4539023	2.156017	.7189328
#1	1.272486	.0461000	.1950302
#2	1.263112	.0447956	.1961587
#3	1.262042	.0467358	.1978355

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3556.183	72450.23	10780.81	2490.364	4004.546
Stddev	3.463	144.62	112.80	10.089	6.152
%RSD	.0973788	.1996160	1.046285	.4051148	.1536213
#1	3557.242	72299.08	10656.69	2481.523	4009.621
#2	3558.992	72587.29	10808.66	2501.354	4006.314
#3	3552.314	72464.32	10877.07	2488.214	3997.704

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-16 Acquired: 1/23/2025 17:31:56 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0650857	-.002666	.3234263	.0343866	.0140441	57.65860	5.260712
Stddev	.0017826	.003121	.0007970	.0012067	.0012975	.19793	.010505
%RSD	2.738845	117.0658	.2464299	3.509297	9.238812	.3432827	.1996820
#1	.0658208	.000430	.3240566	.0330777	.0126435	57.59824	5.264457
#2	.0630531	-.005812	.3225304	.0346273	.0142837	57.87968	5.268831
#3	.0663832	-.002617	.3236920	.0354549	.0152051	57.49787	5.248848

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048160	.0050915	36.76374	.1198981	.0891178	.1459733	143.9958
Stddev	.0001146	.0000714	.06564	.0008929	.0004806	.0016599	.3207
%RSD	2.379974	1.402465	.1785327	.7446990	.5392411	1.137125	.2227389
#1	.0047445	.0051699	36.80473	.1208045	.0894542	.1478899	143.9261
#2	.0047554	.0050300	36.79846	.1198704	.0885674	.1450295	144.3456
#3	.0049482	.0050747	36.68804	.1190194	.0893318	.1450004	143.7156

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.715913	11.96461	.1090534	.0035846	-.216555	.2188193	.5728034
Stddev	.014845	.01561	.0014919	.0002112	.279014	.0026772	.0042560
%RSD	.2210385	.1304946	1.368065	5.892866	128.8417	1.223492	.7430186
#1	6.729904	11.96655	.1107179	.0033733	-.085535	.2174259	.5739455
#2	6.717496	11.94812	.1078365	.0035846	-.027166	.2171262	.5763719
#3	6.700341	11.97917	.1086057	.0037958	-.536965	.2219059	.5680929

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.657866	6.333817	.6045805	.0064138	4.043885	7.641706	.0105835
Stddev	.067675	.015104	.0025032	.0003893	.019907	.027272	.0006439
%RSD	.8837270	.2384713	.4140361	6.069225	.4922721	.3568777	6.083757
#1	7.734228	6.351106	.6054694	.0068581	4.064138	7.643538	.0099057
#2	7.634052	6.323180	.6065180	.0061324	4.024343	7.613565	.0106578
#3	7.605317	6.327165	.6017542	.0062511	4.043175	7.668015	.0111871

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-16 Acquired: 1/23/2025 17:31:56 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.089713**	**.0335329**	**.1603717**
Stddev	.003234	.0009407	.0004500
%RSD	.2967521	2.805270	.2805879
#1	1.087329	.0344038	.1604237
#2	1.088416	.0336596	.1607934
#3	1.093394	.0325353	.1598980

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3747.166**	**76446.87**	**11234.82**	**2602.690**	**4108.390**
Stddev	5.505	322.78	31.13	21.498	9.698
%RSD	.1469061	.4222233	.2770541	.8259752	.2360617
#1	3741.300	76104.66	11207.35	2580.751	4097.493
#2	3747.978	76490.08	11268.63	2603.603	4116.072
#3	3752.220	76745.86	11228.49	2623.717	4111.607

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-17 Acquired: 1/23/2025 17:36:01 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0383979	-.001334	.2020516	.0228952	.0108520	44.48095	1.758536
Stddev	.0018494	.002740	.0015770	.0033944	.0010097	.23563	.004217
%RSD	4.816412	205.4707	.7804856	14.82568	9.304225	.5297420	.2397742
#1	.0366639	-.002871	.2013108	.0235677	.0101046	44.40840	1.759164
#2	.0381855	.001830	.2038626	.0259029	.0104507	44.74433	1.762403
#3	.0403443	-.002961	.2009814	.0192149	.0120006	44.29012	1.754040

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038118	.0034338	29.07208	.0910287	.0624182	.0680749	109.4059
Stddev	.0000242	.0000173	.15031	.0005795	.0001880	.0019667	.5199
%RSD	.6339238	.5036187	.5170256	.6366205	.3011356	2.889012	.4751808
#1	.0038369	.0034516	28.95703	.0906448	.0622037	.0703026	109.0709
#2	.0037888	.0034327	29.24215	.0916953	.0625542	.0673430	110.0048
#3	.0038096	.0034171	29.01707	.0907460	.0624967	.0665791	109.1421

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.168291	13.74965	.0767798	.0020636	.2457097	.1690334	.3370506
Stddev	.009504	.07988	.0004058	.0004539	.2324054	.0030362	.0023639
%RSD	.1838960	.5809859	.5284583	21.99728	94.58537	1.796204	.7013442
#1	5.163265	13.70738	.0772421	.0021430	.4904338	.1706135	.3369442
#2	5.179253	13.84178	.0764828	.0024726	.0279806	.1709537	.3347417
#3	5.162355	13.69977	.0766145	.0015752	.2187148	.1655330	.3394659

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.143239	4.253681	.4533708	.0051781	2.136468	7.152541	.0059626
Stddev	.046397	.026017	.0028961	.0002848	.019309	.033482	.0003967
%RSD	.9020959	.6116420	.6388024	5.499105	.9037924	.4681186	6.653471
#1	5.137715	4.240183	.4514897	.0051491	2.121409	7.175777	.0056935
#2	5.099852	4.283674	.4567059	.0049089	2.158237	7.114162	.0064182
#3	5.192151	4.237187	.4519168	.0054762	2.129757	7.167684	.0057760

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-17 Acquired: 1/23/2025 17:36:01 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9817081	.0255462	.0955540
Stddev	.0019701	.0012457	.0003459
%RSD	.2006831	4.876397	.3620384
#1	.9823369	.0262513	.0956954
#2	.9795003	.0262795	.0958068
#3	.9832871	.0241079	.0951597

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3644.866	75741.51	10833.48	2566.338	4132.954
Stddev	21.215	162.42	41.15	11.491	28.148
%RSD	.5820627	.2144445	.3797983	.4477594	.6810636
#1	3664.542	75878.86	10806.86	2563.907	4160.169
#2	3622.389	75562.24	10880.88	2578.850	4103.957
#3	3647.667	75783.45	10812.72	2556.257	4134.737

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-18 Acquired: 1/23/2025 17:40:00 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0456996	-.001542	.2518841	.0276786	.0126932	52.91478	1.853491
Stddev	.0021649	.001525	.0009084	.0029593	.0001647	.47173	.020305
%RSD	4.737254	98.94081	.3606547	10.69180	1.297851	.8914948	1.095482
#1	.0480462	-.001538	.2508891	.0277105	.0128316	53.01784	1.855648
#2	.0437801	-.000018	.2520940	.0247034	.0125110	53.32646	1.872631
#3	.0452724	-.003069	.2526692	.0306218	.0127369	52.40004	1.832194

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051298	.0043640	26.26983	.1036047	.1012954	.0806964	134.7347
Stddev	.0000711	.0000557	.19917	.0002788	.0002302	.0011264	.9747
%RSD	1.386755	1.275771	.7581840	.2691325	.2272818	1.395903	.7233916
#1	.0051623	.0044138	26.25139	.1033039	.1010478	.0817649	134.9006
#2	.0050482	.0043742	26.47759	.1038545	.1013353	.0808045	135.6158
#3	.0051788	.0043039	26.08052	.1036557	.1015030	.0795198	133.6878

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.269346	10.07822	.0948930	.0042170	-.051283	.2123048	.3948497
Stddev	.057003	.03974	.0008023	.0004142	.242689	.0012994	.0027945
%RSD	.6893254	.3943568	.8454650	9.822974	473.2369	.6120623	.7077263
#1	8.271830	10.05071	.0939837	.0046879	-.292190	.2108496	.3970930
#2	8.325066	10.12379	.0951939	.0039089	.193149	.2133491	.3957366
#3	8.211142	10.06017	.0955013	.0040542	-.054807	.2127158	.3917194

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.031532	5.319603	.5627772	.0048203	2.302056	7.406244	.0068647
Stddev	.095263	.013275	.0064097	.0003457	.002515	.014722	.0007683
%RSD	1.186112	.2495397	1.138938	7.171830	.1092576	.1987799	11.19231
#1	7.978966	5.315986	.5636719	.0049456	2.299860	7.389905	.0066115
#2	8.141497	5.334311	.5686926	.0044295	2.301507	7.410346	.0077277
#3	7.974133	5.308512	.5559672	.0050860	2.304800	7.418479	.0062549

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-18 Acquired: 1/23/2025 17:40:00 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.093933	.0308570	.1239399
Stddev	.000555	.0009681	.0013513
%RSD	.0507196	3.137440	1.090275
#1	1.093342	.0299215	.1238630
#2	1.094442	.0307947	.1253280
#3	1.094016	.0318548	.1226287

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3768.012	75907.18	11089.82	2588.863	4204.149
Stddev	4.777	100.73	84.28	15.156	2.309
%RSD	.1267700	.1327071	.7599477	.5854252	.0549228
#1	3772.564	75793.24	11098.67	2571.483	4206.797
#2	3763.039	75943.86	11169.33	2599.329	4203.100
#3	3768.433	75984.43	11001.47	2595.777	4202.551

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-19 Acquired: 1/23/2025 17:43:57 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0489401**	**-.004979**	**.8407942**	**.0300747**	**.0220914**	**45.61637**
Stddev	.0017350	.002520	.0032511	.0044862	.0032571	.25236
%RSD	3.545094	50.61886	.3866650	14.91697	14.74393	.5532293
#1	.0484436	-.007218	.8445480	.0264369	.0192511	45.60052
#2	.0508691	-.005469	.8388802	.0350875	.0213765	45.87629
#3	.0475074	-.002250	.8389545	.0286996	.0256466	45.37232

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.047126**	**.0023220**	**.0058432**	**396.8761**	**.0972359**	**.0643988**
Stddev	.016262	.0000632	.0000612	.1940	.0004884	.0007070
%RSD	.5336794	2.721122	1.046619	.0488743	.5023357	1.097787
#1	3.044410	.0022909	.0057794	396.7968	.0973104	.0646623
#2	3.064574	.0022803	.0058490	397.0971	.0967145	.0635980
#3	3.032393	.0023947	.0059013	396.7343	.0976829	.0649362

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6943090**	**163.5201**	**3.423598**	**197.3297**	**.0894969**	**.0033898**
Stddev	.0051951	.4678	.003058	.4843	.0007988	.0001435
%RSD	.7482440	.2860595	.0893091	.2454086	.8925182	4.232851
#1	.7002597	163.4029	3.422968	196.9996	.0901249	.0034332
#2	.6919896	164.0353	3.426922	197.8857	.0897679	.0032296
#3	.6906775	163.1221	3.420904	197.1039	.0885979	.0035066

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1114313**	**.1909445**	**.8793495**	**4.959856**	**4.091317**	**.6999104**
Stddev	.1635364	.0015390	.0095450	.045342	.014531	.0014623
%RSD	146.7598	.8060041	1.085464	.9141794	.3551564	.2089193
#1	.1596558	.1927212	.8813773	5.005378	4.106756	.6993077
#2	-.070795	.1900888	.8877176	4.914696	4.089287	.7015776
#3	.245433	.1900236	.8689535	4.959493	4.077909	.6988457

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-19 Acquired: 1/23/2025 17:43:57 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF4 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058895	F 25.08547	7.476121	.0145047	.9985376	.0385553
Stddev	.0001376	.05543	.018816	.0004571	.0032944	.0008164
%RSD	2.336509	.2209778	.2516753	3.151683	.3299190	2.117478
#1	.0057611	25.14857	7.493036	.0141530	1.002338	.0393727
#2	.0060348	25.06323	7.455855	.0150215	.996787	.0377399
#3	.0058727	25.04462	7.479471	.0143398	.996488	.0385534

Elem	Sr4077
Units	ppm
Avg	.2356189
Stddev	.0011983
%RSD	.5085733
#1	.2351911
#2	.2369723
#3	.2346932

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3334.957	67586.82	10451.38	2292.223	3646.250
Stddev	7.778	133.24	72.58	5.366	11.631
%RSD	.2332211	.1971338	.6944961	.2340742	.3189717
#1	3333.705	67436.54	10390.37	2289.693	3635.312
#2	3327.881	67690.50	10531.65	2288.590	3644.972
#3	3343.285	67633.41	10432.13	2298.385	3658.467

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-20 Acquired: 1/23/2025 17:48:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0427080**	**-.002091**	**.3358156**	**.0290319**	**.0173961**	**40.96303**	**3.410897**
Stddev	.0013151	.002105	.0007768	.0009829	.0003887	.41182	.034735
%RSD	3.079347	100.6763	.2313254	3.385559	2.234376	1.005340	1.018366
#1	.0441454	.000271	.3363823	.0286052	.0175130	41.15949	3.429166
#2	.0415651	-.002775	.3361345	.0301560	.0177128	40.48977	3.370840
#3	.0424134	-.003769	.3349301	.0283344	.0169623	41.23983	3.432686

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031820**	**.0067560**	**74.85444**	**.0938250**	**.0849824**	**.2464009**	**128.3975**
Stddev	.0001408	.0000521	.47798	.0003260	.0004000	.0014953	.9007
%RSD	4.426159	.7705726	.6385480	.3474988	.4706463	.6068735	.7015010
#1	.0031628	.0068006	75.06717	.0941884	.0852958	.2481031	128.6327
#2	.0033315	.0067685	74.30703	.0935580	.0845319	.2458004	127.4026
#3	.0030518	.0066987	75.18913	.0937286	.0851195	.2452990	129.1574

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.976321**	**26.85872**	**.0933030**	**.0032163**	**.4987681**	**.1746087**	**.6844029**
Stddev	.035965	.08296	.0003055	.0005755	.1053053	.0016393	.0033321
%RSD	.7227327	.3088816	.3273808	17.89181	21.11309	.9388367	.4868695
#1	4.990573	26.82509	.0935913	.0038045	.6201101	.1736666	.6808573
#2	4.935414	26.79786	.0933349	.0026545	.4449019	.1765015	.6848817
#3	5.002977	26.95322	.0929829	.0031898	.4312922	.1736579	.6874698

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.514404**	**7.057610**	**.5464621**	**.0054758**	**3.330531**	**6.546244**	**.0110180**
Stddev	.073214	.012615	.0049204	.0000890	.010546	.020082	.0005068
%RSD	1.123881	.1787444	.9004048	1.625345	.3166527	.3067750	4.599832
#1	6.545262	7.071835	.5479476	.0054212	3.339854	6.525558	.0113275
#2	6.430812	7.053214	.5409702	.0055785	3.319085	6.565662	.0104332
#3	6.567138	7.047781	.5504686	.0054276	3.332653	6.547511	.0112935

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-20 Acquired: 1/23/2025 17:48:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9737035	.0259710	.1637153
Stddev	.0038160	.0020088	.0016474
%RSD	.3919033	7.734659	1.006257
#1	.9693473	.0279092	.1646568
#2	.9753075	.0238984	.1618131
#3	.9764556	.0261053	.1646761

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3582.974	74202.37	10834.20	2514.532	4040.444
Stddev	6.823	166.28	86.86	3.805	8.953
%RSD	.1904398	.2240916	.8016963	.1513137	.2215880
#1	3576.614	74016.07	10885.43	2512.568	4031.026
#2	3582.126	74335.77	10733.91	2512.110	4048.846
#3	3590.181	74255.25	10883.25	2518.918	4041.458

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-21 Acquired: 1/23/2025 17:51:58 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0459270	-.002211	.2095309	.0255290	.0114218	44.18865	1.465297
Stddev	.0020654	.000276	.0008071	.0017055	.0002231	.29915	.010642
%RSD	4.497029	12.49795	.3852075	6.680714	1.952978	.6769748	.7262867
#1	.0439644	-.002177	.2099547	.0270761	.0112433	44.14473	1.468252
#2	.0480817	-.002503	.2100379	.0237002	.0116719	44.50733	1.474149
#3	.0457348	-.001953	.2086002	.0258108	.0113503	43.91389	1.453489

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043591	.0044312	30.69466	.1014358	.0799343	.0826874	120.1882
Stddev	.0001411	.0000675	.18699	.0004793	.0000950	.0008271	.8122
%RSD	3.237128	1.522777	.6091966	.4725515	.1187978	1.000320	.6757389
#1	.0043923	.0044646	30.73859	.1014618	.0798946	.0820665	120.1348
#2	.0042044	.0043535	30.85577	.1009440	.0798656	.0836263	121.0257
#3	.0044807	.0044754	30.48961	.1019016	.0800426	.0823693	119.4041

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.570164	14.63195	.0936487	.0018977	6.991749	.1849615	.3748767
Stddev	.030512	.09795	.0002792	.0003324	.202347	.0005327	.0077407
%RSD	.5477815	.6694311	.2981073	17.51459	2.894080	.2880159	2.064876
#1	5.578517	14.59120	.0937830	.0021762	6.764254	.1854520	.3736532
#2	5.595630	14.74370	.0938354	.0019871	7.151637	.1843948	.3831563
#3	5.536346	14.56096	.0933278	.0015298	7.059355	.1850376	.3678206

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.812882	3.547707	.4989992	.0043694	1.775021	7.797506	.0105642
Stddev	.080065	.002593	.0052055	.0003785	.003265	.033756	.0009360
%RSD	1.377375	.0730918	1.043177	8.663327	.1839503	.4329079	8.860128
#1	5.780042	3.547244	.4983671	.0039980	1.777143	7.818885	.0100334
#2	5.904146	3.545377	.5044918	.0047547	1.771261	7.758591	.0100142
#3	5.754458	3.550501	.4941387	.0043556	1.776658	7.815042	.0116449

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1039-21 Acquired: 1/23/2025 17:51:58 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPF6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9959066	.0234426	.0733361
Stddev	.0030633	.0005182	.0005491
%RSD	.3075914	2.210434	.7487055
#1	.9992799	.0228446	.0736676
#2	.9932983	.0237592	.0736383
#3	.9951415	.0237240	.0727023

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3659.910	75453.43	10758.69	2581.220	4082.176
Stddev	13.343	154.88	71.31	16.365	9.939
%RSD	.3645795	.2052614	.6627709	.6339863	.2434819
#1	3646.797	75560.87	10752.42	2596.310	4074.303
#2	3659.461	75275.90	10832.92	2563.825	4078.881
#3	3673.472	75523.54	10690.72	2583.525	4093.345

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV004 Acquired: 1/23/2025 17:55:56 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV004 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.883931**	**4.753472**	**24.41831**	**4.872807**	**4.949822**	**417.6569**
Stddev	.016790	.020763	.01857	.009294	.019084	2.1824
%RSD	.3437773	.4367937	.0760536	.1907339	.3855407	.5225426
#1	4.876812	4.741375	24.40065	4.863259	4.948617	415.2772
#2	4.871873	4.741594	24.41660	4.873338	4.931369	418.1285
#3	4.903107	4.777446	24.43768	4.881825	4.969479	419.5650

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.45351**	**.4871353**	**2.468992**	**410.7581**	**15.78465**	**2.474714**
Stddev	.06704	.0039709	.002977	1.4539	.02922	.003211
%RSD	.6412892	.8151600	.1205787	.3539620	.1851005	.1297431
#1	10.43615	.4917201	2.466134	410.0578	15.75102	2.472148
#2	10.39686	.4847879	2.468768	409.7869	15.80378	2.473681
#3	10.52751	.4848979	2.472075	412.4297	15.79915	2.478315

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.84677**	**420.9851**	**15.43635**	**412.7642**	**2.469270**	**1.301308**
Stddev	.02457	3.5341	.15626	3.2610	.002146	.000332
%RSD	.1654859	.8394789	1.012261	.7900364	.0869171	.0255245
#1	14.82197	416.9250	15.25707	408.9988	2.466841	1.300979
#2	14.84723	423.3710	15.50840	414.6308	2.470062	1.301303
#3	14.87110	422.6592	15.54359	414.6631	2.470908	1.301643

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**393.1000**	**2.478570**	**15.86314**	**159.3857**	**4.940580**	F **5.907211**
Stddev	1.3371	.006623	.15521	1.4484	.002981	.017866
%RSD	.3401386	.2672010	.9784597	.9087658	.0603446	.3024368
#1	392.0094	2.484727	15.69774	157.7841	4.940026	5.927183
#2	392.6988	2.471563	16.00562	160.6038	4.943800	5.892750
#3	394.5917	2.479419	15.88604	159.7690	4.937915	5.901699

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV004 Acquired: 1/23/2025 17:55:56 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV004 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.897463**	**4.951674**	**4.940361**	**4.986270**	**4.955551**	**5.255848**
Stddev	.014697	.014585	.008109	.010783	.003719	.058696
%RSD	.3000976	.2945552	.1641301	.2162558	.0750536	1.116783
#1	4.894656	4.958521	4.944902	4.975891	4.959349	5.188791
#2	4.884371	4.934925	4.945182	4.985503	4.951916	5.297905
#3	4.913361	4.961576	4.930999	4.997416	4.955389	5.280849

Elem	Sr4077
Units	ppm
Avg	**5.281588**
Stddev	.074381
%RSD	1.408298
#1	5.209226
#2	5.357835
#3	5.277702

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2788.468**	**59360.64**	**9357.176**	**2022.109**	**3226.588**
Stddev	7.202	221.07	60.374	16.481	2.625
%RSD	.2582841	.3724139	.6452108	.8150608	.0813549
#1	2782.110	59615.21	9288.675	2030.255	3223.677
#2	2796.289	59217.02	9402.637	2003.141	3228.775
#3	2787.006	59249.68	9380.217	2032.932	3227.314

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB004 Acquired: 1/23/2025 18:00:14 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB004 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001269**	**.0010332**	**-.000323**	**.0047022**	**.0005657**	**-.005384**	**-.001674**
Stddev	.003007	.0014804	.000389	.0021906	.0005240	.007921	.000350
%RSD	236.9659	143.2883	120.4709	46.58716	92.61751	147.1229	20.93188
#1	.002166	.0024134	.000108	.0052293	.0002795	-.000163	-.002044
#2	-.003428	-.000530	-.000428	.0022961	.0011705	-.014497	-.001347
#3	-.002544	.001216	-.000649	.0065812	.0002472	-.001491	-.001630

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000919**	**.0000049**	**.0102321**	**.0007453**	**-.000121**	**.0032593**	**.0083162**
Stddev	.0000609	.0000800	.0052220	.0003765	.000148	.0019705	.0104828
%RSD	66.25353	1641.070	51.03536	50.51399	122.0682	60.45802	126.0527
#1	.0001618	.0000923	.0097459	.0011730	.000002	.0016217	.0059492
#2	.0000502	-.000013	.0052702	.0004639	-.000080	.0027101	-.000781
#3	.0000637	-.000065	.0156802	.0005992	-.000286	.0054462	.019780

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004281**	**.0165060**	**.0000863**	**-.000508**	**-.247068**	**-.000257**	**-.000641**
Stddev	.0001224	.0008374	.0003122	.000148	.437174	.000412	.001159
%RSD	28.58752	5.073376	361.8960	29.19103	176.9445	160.0573	180.7579
#1	.0004930	.0171920	-.000174	-.000659	-.667516	-.000703	.000133
#2	.0005044	.0167532	-.000000	-.000363	.205103	.000110	-.000083
#3	.0002870	.0155728	.000433	-.000500	-.278792	-.000180	-.001973

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.019111**	**.0024598**	**.0036778**	**-.000158**	**.0030943**	**.0057284**	**-.000356**
Stddev	.004701	.0019544	.0002432	.000117	.0014507	.0026907	.000463
%RSD	24.60066	79.45471	6.613416	73.93196	46.88218	46.97089	129.8694
#1	-.015830	.0046885	.0037365	-.000166	.0030862	.0027462	-.000343
#2	-.024497	.0010383	.0038862	-.000037	.0045490	.0079743	.000100
#3	-.017005	.0016526	.0034105	-.000270	.0016477	.0064647	-.000826

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB004 Acquired: 1/23/2025 18:00:14 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB004 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0002858	-.003789	.0000787
Stddev	.0010171	.001029	.0000258
%RSD	355.7985	27.15586	32.74311
#1	.0006781	-.004018	.0000934
#2	.0010483	-.002665	.0000489
#3	-.000869	-.004684	.0000937

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3479.409	71002.92	9836.950	2451.532	4358.568
Stddev	1.299	236.57	28.247	2.697	2.604
%RSD	.0373480	.3331844	.2871567	.1100163	.0597452
#1	3479.564	71253.69	9855.475	2448.533	4358.992
#2	3480.624	70971.34	9850.937	2453.759	4355.777
#3	3478.039	70783.72	9804.438	2452.303	4360.933

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-01 Acquired: 1/23/2025 18:04:23 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ38 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0670593**	**-.005637**	**1.004487**	**.0250394**	**.0175381**	**39.05450**
Stddev	.0030441	.000121	.001703	.0015721	.0005437	.28682
%RSD	4.539408	2.138471	.1695227	6.278682	3.099882	.7343993
#1	.0668889	-.005748	1.005932	.0268112	.0179174	39.30777
#2	.0641040	-.005509	1.002610	.0244956	.0169152	38.74306
#3	.0701850	-.005653	1.004920	.0238113	.0177816	39.11267

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.20934**	**.0050857**	**.0093166**	**258.8857**	**.1360734**	**.1083016**
Stddev	.04849	.0000509	.0000745	1.6807	.0007335	.0003662
%RSD	.3971402	1.001639	.7999988	.6492224	.5390227	.3381516
#1	12.22921	.0050362	.0092308	259.9813	.1365536	.1087227
#2	12.15407	.0050829	.0093659	256.9506	.1352291	.1081248
#3	12.24473	.0051380	.0093530	259.7253	.1364374	.1080574

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0844271**	**135.6782**	**11.89008**	**135.5069**	**.0830115**	**.0046192**
Stddev	.0015594	.9618	.08576	.7248	.0000988	.0000430
%RSD	1.847039	.7088843	.7212875	.5348696	.1190052	.9311215
#1	.0862053	136.4963	11.94705	135.9994	.0829151	.0046380
#2	.0832926	134.6187	11.79145	134.6747	.0831125	.0045700
#3	.0837834	135.9198	11.93174	135.8466	.0830068	.0046496

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2664669**	**.2318595**	**1.398321**	**2.490256**	**2.228648**	**.5745218**
Stddev	.4520240	.0019815	.009245	.042886	.007230	.0046368
%RSD	169.6361	.8545914	.6611374	1.722170	.3243974	.8070699
#1	.6722246	.2301521	1.403879	2.538325	2.221408	.5784878
#2	.3479228	.2340322	1.387649	2.455912	2.228670	.5694238
#3	-.220747	.2313943	1.403436	2.476531	2.235867	.5756537

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-01 Acquired: 1/23/2025 18:04:23 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ38 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0074875	F 26.36783	6.572822	.0074194	.9607415	.0247766
Stddev	.0002770	.11419	.022135	.0005781	.0032243	.0018599
%RSD	3.699328	.4330811	.3367637	7.791817	.3356041	7.506649
#1	.0077893	26.29023	6.563066	.0074430	.9603083	.0266311
#2	.0074285	26.31431	6.557242	.0079853	.9577558	.0247872
#3	.0072448	26.49896	6.598159	.0068298	.9641606	.0229114

Elem	Sr4077
Units	ppm
Avg	.2265875
Stddev	.0021131
%RSD	.9325750
#1	.2282718
#2	.2242164
#3	.2272741

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3401.543	71101.09	10750.86	2410.619	3658.043
Stddev	12.872	130.03	65.93	7.469	10.347
%RSD	.3784105	.1828843	.6132700	.3098353	.2828504
#1	3411.210	71063.85	10821.46	2408.994	3664.441
#2	3406.488	71245.68	10690.89	2418.766	3663.582
#3	3386.932	70993.74	10740.23	2404.096	3646.106

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-02 Acquired: 1/23/2025 18:08:27 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ39 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0375455	-.005642	.4555826	.0216262	.0110355	20.53354	6.423264
Stddev	.0021333	.000468	.0033161	.0050983	.0011224	.04822	.055463
%RSD	5.682019	8.289324	.7278918	23.57450	10.17082	.2348578	.8634692
#1	.0353365	-.005221	.4593358	.0199298	.0117816	20.54956	6.479145
#2	.0377058	-.005559	.4543629	.0273564	.0097447	20.47934	6.368229
#3	.0395941	-.006146	.4530490	.0175924	.0115803	20.57171	6.422420

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023362	.0042292	65.48709	.0956431	.0395698	.0628049	73.14253
Stddev	.0000656	.0001013	.07118	.0007202	.0003046	.0008358	.20693
%RSD	2.806646	2.395258	.1086956	.7530453	.7698503	1.330793	.2829145
#1	.0023046	.0043401	65.56927	.0964195	.0393961	.0622267	73.29682
#2	.0022925	.0041415	65.44688	.0949967	.0399216	.0624248	72.90738
#3	.0024116	.0042059	65.44511	.0955130	.0393918	.0637632	73.22340

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.030212	13.05677	.0328399	.0025796	-.106295	.1409359	.4634528
Stddev	.014581	.00956	.0009064	.0001742	.307112	.0023964	.0016784
%RSD	.2417990	.0732315	2.760127	6.752964	288.9247	1.700344	.3621520
#1	6.046147	13.06025	.0337199	.0026550	.220704	.1420498	.4635613
#2	6.017536	13.06411	.0319092	.0023804	-.150959	.1425727	.4650743
#3	6.026954	13.04596	.0328906	.0027034	-.388628	.1381853	.4617227

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.663482	2.274535	.3176567	.0042571	3.599695	3.845223	.0066469
Stddev	.057440	.002993	.0008215	.0002326	.004095	.003783	.0005021
%RSD	2.156581	.1316090	.2586121	5.464855	.1137488	.0983902	7.554608
#1	2.721960	2.277987	.3178980	.0042167	3.603923	3.845397	.0061613
#2	2.607139	2.272963	.3167415	.0045073	3.595748	3.841356	.0071641
#3	2.661345	2.272656	.3183304	.0040473	3.599414	3.848916	.0066151

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-02 Acquired: 1/23/2025 18:08:27 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ39 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7199501	.0060624	.1762393
Stddev	.0019882	.0004829	.0007006
%RSD	.2761619	7.965244	.3975499
#1	.7177337	.0055649	.1766698
#2	.7215767	.0060929	.1754309
#3	.7205398	.0065292	.1766173

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3440.141	73388.69	10461.53	2462.791	4156.591
Stddev	10.624	287.65	9.93	7.405	13.508
%RSD	.3088321	.3919551	.0948970	.3006729	.3249890
#1	3427.938	73058.46	10455.20	2471.175	4142.621
#2	3447.337	73584.70	10456.42	2457.146	4169.584
#3	3445.147	73522.90	10472.98	2460.051	4157.568

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-03 Acquired: 1/23/2025 18:12:35 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ40 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0880563	-.002956	.9287434	.0356589	.0189658	31.75135	9.523616
Stddev	.0016411	.001421	.0030001	.0024789	.0009152	.28036	.075134
%RSD	1.863689	48.07479	.3230273	6.951780	4.825638	.8829892	.7889244
#1	.0898769	-.004482	.9308022	.0342490	.0191589	31.43821	9.559390
#2	.0876013	-.002717	.9301269	.0385212	.0179695	31.97905	9.437280
#3	.0866907	-.001670	.9253012	.0342065	.0197691	31.83680	9.574179

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039724	.0059533	60.13110	.2830023	.0947395	.0487175	166.6293
Stddev	.0000528	.0001325	.46587	.0003471	.0006621	.0029078	1.4904
%RSD	1.328907	2.225477	.7747613	.1226312	.6988756	5.968651	.8944405
#1	.0040083	.0059135	59.60142	.2832007	.0940491	.0459254	164.9739
#2	.0039118	.0058453	60.47730	.2826016	.0948003	.0517286	167.8644
#3	.0039972	.0061011	60.31457	.2832047	.0953691	.0484986	167.0496

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.449833	23.41077	.0508618	.0042684	-.004458	.3487908	.7617362
Stddev	.072886	.20072	.0001921	.0006351	.384661	.0033008	.0056891
%RSD	.7712925	.8573879	.3776113	14.87831	8628.598	.9463620	.7468538
#1	9.370506	23.17900	.0506481	.0036034	-.445050	.3505810	.7557014
#2	9.513844	23.52760	.0509170	.0043333	.264550	.3449816	.7670011
#3	9.465147	23.52572	.0510201	.0048685	.167127	.3508098	.7625061

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.847932	2.118523	.6898403	.0076889	3.744967	5.212003	.0070710
Stddev	.006879	.009155	.0062803	.0000976	.010317	.034126	.0010844
%RSD	.3722408	.4321458	.9104036	1.269482	.2754942	.6547523	15.33602
#1	1.849157	2.108352	.6828271	.0077955	3.736161	5.236939	.0064114
#2	1.840523	2.126105	.6949450	.0076038	3.756319	5.173111	.0083226
#3	1.854116	2.121112	.6917489	.0076675	3.742421	5.225958	.0064791

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-03 Acquired: 1/23/2025 18:12:35 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ40 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.128128	.0112342	.1449541
Stddev	.003294	.0007168	.0014119
%RSD	.2919804	6.380220	.9740356
#1	1.126023	.0120570	.1435649
#2	1.126437	.0107458	.1463877
#3	1.131924	.0108997	.1449097

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3414.851	71365.18	10329.45	2435.695	4043.954
Stddev	2.756	187.91	99.42	8.862	3.582
%RSD	.0806983	.2633108	.9624890	.3638352	.0885805
#1	3413.828	71579.20	10257.65	2445.809	4048.090
#2	3412.753	71289.14	10442.92	2429.289	4041.867
#3	3417.972	71227.21	10287.76	2431.987	4041.904

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-04 Acquired: 1/23/2025 18:16:40 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ41 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1223004**	**-.012610**	**24.88075**	**.0383853**	**.0415575**	**17.81889**
Stddev	.0033681	.003726	.01488	.0024981	.0015233	.05371
%RSD	2.753949	29.54652	.0598074	6.507948	3.665512	.3014293
#1	.1236244	-.010532	24.88209	.0357405	.0423928	17.75917
#2	.1248053	-.010388	24.89491	.0407048	.0424803	17.83427
#3	.1184715	-.016912	24.86524	.0387108	.0397992	17.86323

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **29.20911**	**.0068212**	**.1828125**	F **890.6847**	**.1614649**	**.1971737**
Stddev	.22266	.0001540	.0004651	2.6700	.0005928	.0002215
%RSD	.7622870	2.258333	.2544236	.2997648	.3671337	.1123498
#1	28.98100	.0067782	.1825015	889.0072	.1610188	.1973987
#2	29.22044	.0066932	.1833472	889.2834	.1621376	.1969558
#3	29.42588	.0069922	.1825889	893.7636	.1612384	.1971667

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6247843**	**271.6073**	**18.67012**	**412.3052**	**.2292444**	**.0144154**
Stddev	.0054866	.9462	.06151	1.7653	.0014572	.0004636
%RSD	.8781545	.3483790	.3294597	.4281560	.6356508	3.215652
#1	.6273964	270.5894	18.59913	410.2827	.2275730	.0149491
#2	.6184797	272.4600	18.70372	413.0960	.2302480	.0141837
#3	.6284767	271.7726	18.70752	413.5368	.2299123	.0141134

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1197408**	**.2352825**	**15.99594**	**1.088927**	**4.301211**	**1.162151**
Stddev	.4630816	.0007847	.10031	.058546	.006513	.002071
%RSD	386.7367	.3335286	.6270825	5.376507	.1514235	.1781798
#1	.5449356	.2361858	15.89334	1.051262	4.303352	1.161082
#2	.1879485	.2347691	16.00070	1.059143	4.306384	1.164537
#3	-.373662	.2348926	16.09378	1.156378	4.293897	1.160832

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-04 Acquired: 1/23/2025 18:16:40 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ41 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060934	F 22.18025	4.348480	.0104827	.4977963	.0259438
Stddev	.0004820	.04333	.013209	.0018698	.0023051	.0006648
%RSD	7.910397	.1953511	.3037512	17.83708	.4630582	2.562604
#1	.0065073	22.14620	4.334348	.0119063	.4951610	.0266248
#2	.0055642	22.22902	4.360514	.0111766	.4987895	.0259101
#3	.0062087	22.16552	4.350577	.0083651	.4994382	.0252964

Elem	Sr4077
Units	ppm
Avg	.4443166
Stddev	.0013023
%RSD	.2931008
#1	.4430354
#2	.4456390
#3	.4442754

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3144.818	65721.62	9964.057	2207.685	3260.842
Stddev	9.800	397.00	31.365	15.433	7.122
%RSD	.3116256	.6040610	.3147847	.6990378	.2184020
#1	3140.244	66178.29	10000.28	2224.050	3258.402
#2	3138.141	65458.72	9946.07	2205.609	3255.261
#3	3156.069	65527.84	9945.83	2193.395	3268.863

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-05 Acquired: 1/23/2025 18:20:52 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ41D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1200638**	**-.017696**	**25.28142**	**.0394245**	**.0435294**	**18.60174**
Stddev	.0042128	.003254	.02045	.0031743	.0025964	.01901
%RSD	3.508771	18.38829	.0808827	8.051662	5.964786	.1022182
#1	.1153198	-.020701	25.25807	.0359182	.0443692	18.62121
#2	.1215041	-.018146	25.29006	.0421027	.0456021	18.60080
#3	.1233676	-.014240	25.29612	.0402525	.0406171	18.58322

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **30.76246**	**.0067346**	**.1854357**	F **924.2965**	**.1633801**	**.2005542**
Stddev	.25376	.0001573	.0004604	3.0494	.0001811	.0005322
%RSD	.8248948	2.335481	.2482836	.3299137	.1108436	.2653799
#1	30.70760	.0067318	.1853170	922.1079	.1634410	.2009666
#2	30.54062	.0065787	.1859439	927.7796	.1631765	.2007427
#3	31.03916	.0068932	.1850464	923.0020	.1635230	.1999534

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6401052**	**284.1087**	**19.67128**	**432.7572**	**.2328700**	**.0170268**
Stddev	.0037628	.0764	.02677	.4131	.0006257	.0001173
%RSD	.5878459	.0268799	.1360775	.0954520	.2686774	.6886452
#1	.6361506	284.0207	19.67075	432.6644	.2335921	.0170435
#2	.6405237	284.1468	19.69831	433.2088	.2324901	.0171349
#3	.6436413	284.1585	19.64478	432.3984	.2325277	.0169022

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.323116**	**.2387969**	**16.76771**	**1.274464**	**4.397540**	**1.223967**
Stddev	.136392	.0021616	.11209	.017536	.010116	.002723
%RSD	42.21149	.9051954	.6684950	1.375926	.2300302	.2224552
#1	-.282883	.2365489	16.89305	1.254255	4.392152	1.226959
#2	-.475099	.2408602	16.73301	1.285673	4.409210	1.221635
#3	-.211366	.2389818	16.67708	1.283462	4.391260	1.223307

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-05 Acquired: 1/23/2025 18:20:52 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ41D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070612	F 22.68330	4.495165	.0105657	.5109747	.0269039
Stddev	.0004094	.07870	.012621	.0014419	.0023371	.0020905
%RSD	5.797256	.3469453	.2807732	13.64712	.4573847	7.770146
#1	.0075334	22.65902	4.493030	.0091494	.5113449	.0245719
#2	.0068439	22.77127	4.508717	.0105157	.5084746	.0286098
#3	.0068063	22.61959	4.483747	.0120319	.5131047	.0275300

Elem	Sr4077
Units	ppm
Avg	.4684586
Stddev	.0010311
%RSD	.2200959
#1	.4696440
#2	.4679621
#3	.4677698

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3146.309	65336.26	10161.91	2196.161	3256.822
Stddev	1.876	58.83	14.82	13.362	1.234
%RSD	.0596308	.0900353	.1458303	.6084028	.0378902
#1	3148.248	65334.54	10176.13	2180.862	3257.393
#2	3146.174	65395.92	10163.06	2202.081	3255.406
#3	3144.503	65278.31	10146.55	2205.539	3257.667

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-04LX5 Acquired: 1/23/2025 18:25:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ41L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0229451	-.000261	5.119888	.0105313	.0077197	3.486081	5.880125
Stddev	.0014156	.001975	.005125	.0006501	.0012747	.058428	.158637
%RSD	6.169335	758.2726	.1001091	6.173342	16.51198	1.676039	2.697852
#1	.0213888	-.002441	5.121693	.0109241	.0091769	3.508447	5.971476
#2	.0232907	.001409	5.114104	.0108891	.0068120	3.419774	5.696947
#3	.0241559	.000250	5.123867	.0097809	.0071700	3.530022	5.971952

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015705	.0371556	185.5007	.0354806	.0398686	.1320139	57.71726
Stddev	.0000409	.0001075	3.5513	.0005076	.0003704	.0018981	1.11385
%RSD	2.602977	.2892654	1.914418	1.430638	.9289875	1.437777	1.929844
#1	.0016177	.0370339	187.1922	.0353642	.0394541	.1318614	58.33194
#2	.0015459	.0372378	181.4199	.0350413	.0401672	.1301967	56.43151
#3	.0015480	.0371949	187.8900	.0360363	.0399844	.1339836	58.38835

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.907145	83.30052	.0464502	.0031635	.1324935	.0540764	3.254964
Stddev	.071966	1.59278	.0006817	.0002871	.3395198	.0008206	.063473
%RSD	1.841902	1.912088	1.467653	9.075131	256.2540	1.517434	1.950027
#1	3.940002	84.03738	.0467025	.0032956	.4882377	.0533133	3.278775
#2	3.824615	81.47273	.0456783	.0028342	.0973035	.0549444	3.183028
#3	3.956818	84.39144	.0469698	.0033608	-.188061	.0539714	3.303087

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1550577	.8234087	.2467353	.0012289	4.202798	.9588443	-.001003
Stddev	.0893046	.0009028	.0056719	.0001161	.009329	.0010694	.000723
%RSD	57.59447	.1096457	2.298797	9.447379	.2219630	.1115283	72.06126
#1	.1020659	.8242865	.2497964	.0010949	4.203338	.9599267	-.001604
#2	.1049428	.8224828	.2401905	.0012924	4.193211	.9577885	-.001205
#3	.2581644	.8234568	.2502191	.0012994	4.211845	.9588176	-.000201

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-04LX5 Acquired: 1/23/2025 18:25:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ41L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1093161	.0021485	.0894637
Stddev	.0015901	.0002990	.0015162
%RSD	1.454585	13.91830	1.694813
#1	.1076269	.0019901	.0900341
#2	.1107839	.0019620	.0877449
#3	.1095375	.0024934	.0906119

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3342.901	68406.08	9742.638	2356.415	3850.760
Stddev	3.863	1282.12	12.394	43.914	3.912
%RSD	.1155540	1.874283	.1272149	1.863573	.1015987
#1	3343.617	67700.69	9751.572	2332.588	3846.245
#2	3338.730	69886.01	9747.854	2407.092	3853.160
#3	3346.355	67631.53	9728.489	2329.566	3852.874

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-06 Acquired: 1/23/2025 18:29:12 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ41S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1920755**	**.0877463**	**24.58808**	**.2101462**	**.2178078**	**21.49594**
Stddev	.0012939	.0013112	.04919	.0040362	.0026736	.05949
%RSD	.6736305	1.494314	.2000370	1.920685	1.227516	.2767371
#1	.1920883	.0866599	24.56349	.2068143	.2147223	21.56461
#2	.1933629	.0892027	24.55603	.2089900	.2192617	21.46028
#3	.1907752	.0873762	24.64471	.2146344	.2194394	21.46293

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **32.56365**	**.1017327**	**.2789045**	F **885.5526**	**.5637518**	**1.193973**
Stddev	.26883	.0003659	.0005310	7.0343	.0010170	.002931
%RSD	.8255525	.3596371	.1903878	.7943450	.1803983	.2454510
#1	32.61003	.1020882	.2782920	893.6705	.5646532	1.193733
#2	32.80628	.1017526	.2792337	881.2561	.5639529	1.191169
#3	32.27465	.1013573	.2791880	881.7311	.5626492	1.197016

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.068945**	**273.5450**	**19.60103**	**412.3762**	**1.215009**	**.0924712**
Stddev	.003226	.8301	.06226	1.4269	.000864	.0007937
%RSD	.3018331	.3034478	.3176131	.3460206	.0711208	.8583216
#1	1.067639	274.4604	19.64965	413.8028	1.214671	.0923831
#2	1.072619	272.8411	19.53086	410.9490	1.214364	.0917253
#3	1.066576	273.3336	19.62258	412.3768	1.215991	.0933053

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.121048**	**1.160597**	**16.88438**	**1.238400**	**4.220038**	**1.172010**
Stddev	.241144	.006781	.08142	.041816	.005277	.003332
%RSD	199.2131	.5842423	.4822384	3.376583	.1250522	.2843105
#1	-.127884	1.168099	16.91174	1.262338	4.219707	1.175418
#2	-.358701	1.154905	16.94860	1.190116	4.214935	1.168759
#3	.123441	1.158787	16.79280	1.262745	4.225473	1.171852

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-06 Acquired: 1/23/2025 18:29:12 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ41S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060524	F 21.67389	4.360450	.0088614	.4934405	.0256723
Stddev	.0003712	.00908	.002683	.0002907	.0025087	.0005600
%RSD	6.133086	.0418991	.0615229	3.280957	.5084153	2.181235
#1	.0063083	21.67716	4.359623	.0091631	.4948233	.0261940
#2	.0062222	21.66363	4.363449	.0085830	.4949536	.0250806
#3	.0056267	21.68088	4.358279	.0088383	.4905446	.0257423

Elem	Sr4077
Units	ppm
Avg	.4435969
Stddev	.0012669
%RSD	.2855918
#1	.4450200
#2	.4425918
#3	.4431790

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3202.455	65638.45	10018.86	2215.271	3327.022
Stddev	7.214	151.02	33.73	19.288	7.217
%RSD	.2252772	.2300725	.3367030	.8706896	.2169135
#1	3205.406	65549.62	10000.97	2212.936	3330.968
#2	3207.726	65552.92	9997.83	2197.257	3331.406
#3	3194.233	65812.82	10057.77	2235.620	3318.693

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-07 Acquired: 1/23/2025 18:33:21 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ42 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0726385	-.011033	9.068989	.0200336	.0252787	17.72571
Stddev	.0027303	.000806	.006893	.0036654	.0017972	.12771
%RSD	3.758813	7.305481	.0760024	18.29623	7.109695	.7204536
#1	.0743344	-.011300	9.076849	.0199266	.0234580	17.86653
#2	.0694889	-.010128	9.063978	.0237513	.0253266	17.69317
#3	.0740922	-.011672	9.066139	.0164229	.0270516	17.61742

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 33.73793	.0052419	.1084107	F 1178.858	.1033041	.1141386
Stddev	.30256	.0001160	.0003209	6.755	.0008266	.0006330
%RSD	.8968080	2.213087	.2960351	.5730545	.8001804	.5545728
#1	34.05074	.0051736	.1086479	1182.966	.1026090	.1140417
#2	33.44677	.0051762	.1080455	1182.546	.1030851	.1135597
#3	33.71627	.0053758	.1085386	1171.061	.1042182	.1148145

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2406638	175.0350	14.46086	545.7963	.1376348	.0090606
Stddev	.0011970	1.0443	.08311	2.9889	.0004469	.0004060
%RSD	.4973742	.5966438	.5747335	.5476227	.3246986	4.480929
#1	.2395383	176.2182	14.55627	549.1330	.1373362	.0094572
#2	.2405316	174.6448	14.40417	544.8917	.1374196	.0090787
#3	.2419214	174.2419	14.42214	543.3642	.1381486	.0086458

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.498725	.1494066	13.62865	1.343894	4.025352	.7549155
Stddev	.149079	.0002822	.09192	.024389	.009625	.0059202
%RSD	29.89210	.1888596	.6744507	1.814830	.2391173	.7842244
#1	-.342786	.1490808	13.73465	1.370294	4.016934	.7616667
#2	-.513552	.1495745	13.57099	1.339188	4.023275	.7524701
#3	-.639837	.1495645	13.58031	1.322201	4.035846	.7506098

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-07 Acquired: 1/23/2025 18:33:21 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ42 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066503	F 22.01499	4.720660	.0070462	.5620614	.0414532
Stddev	.0006012	.06041	.012708	.0009266	.0022703	.0005515
%RSD	9.040210	.2744029	.2691976	13.15065	.4039167	1.330501
#1	.0072255	22.01707	4.728383	.0061281	.5623485	.0417250
#2	.0066995	21.95356	4.727605	.0070293	.5641744	.0408185
#3	.0060261	22.07433	4.705993	.0079812	.5596612	.0418161

Elem	Sr4077
Units	ppm
Avg	.6222556
Stddev	.0046130
%RSD	.7413341
#1	.6275822
#2	.6195763
#3	.6196083

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3155.795	65150.36	10080.75	2207.376	3157.494
Stddev	5.022	160.35	73.59	4.755	4.054
%RSD	.1591297	.2461256	.7299917	.2154064	.1283905
#1	3150.005	65225.53	10152.22	2203.610	3152.827
#2	3158.404	64966.23	10005.21	2205.800	3160.142
#3	3158.975	65259.32	10084.81	2212.719	3159.513

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-08 Acquired: 1/23/2025 18:37:32 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ43 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1189805	-.011075	8.172863	.0470162	.0392994	67.60460
Stddev	.0027323	.000792	.044846	.0044160	.0010217	.31424
%RSD	2.296403	7.150975	.5487145	9.392497	2.599862	.4648186
#1	.1216183	-.011989	8.183838	.0510840	.0403418	67.96486
#2	.1191607	-.010652	8.123549	.0476452	.0392568	67.38697
#3	.1161626	-.010585	8.211203	.0423194	.0382997	67.46197

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 29.90944	.0104152	.0852772	283.7153	.2290798	.1678144
Stddev	.44383	.0002015	.0003021	1.4703	.0004131	.0006802
%RSD	1.483902	1.934569	.3542610	.5182306	.1803264	.4053029
#1	30.41564	.0101927	.0852141	285.3521	.2286205	.1680124
#2	29.58707	.0105854	.0850116	282.5063	.2294209	.1670571
#3	29.72559	.0104676	.0856058	283.2876	.2291980	.1683735

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5638623	266.2186	19.60509	26.13063	.3046751	.0063240
Stddev	.0007173	1.1786	.12270	.06347	.0010649	.0003810
%RSD	.1272213	.4427331	.6258684	.2428904	.3495311	6.024527
#1	.5645805	267.5719	19.72958	26.19944	.3038008	.0067548
#2	.5638605	265.6669	19.48426	26.07438	.3043635	.0061859
#3	.5631458	265.4170	19.60144	26.11808	.3058611	.0060313

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055753	.3453522	20.53337	6.300692	F 15.66187	1.171363
Stddev	.2851904	.0013263	.05181	.036390	.07727	.007199
%RSD	5115.250	.3840459	.2523100	.5775587	.4933794	.6145859
#1	.1686690	.3465200	20.56539	6.340301	15.66166	1.179666
#2	-.323729	.3456263	20.56112	6.293037	15.58470	1.167555
#3	.171786	.3439102	20.47360	6.268738	15.73924	1.166867

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-08 Acquired: 1/23/2025 18:37:32 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ43 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066688	F 16.50937	7.657224	.0502926	1.076754	.0322401
Stddev	.0006993	.09469	.020010	.0012558	.003461	.0005150
%RSD	10.48665	.5735806	.2613220	2.497075	.3214356	1.597374
#1	.0058956	16.52754	7.676356	.0511853	1.080602	.0317263
#2	.0068536	16.40691	7.636439	.0488565	1.075765	.0322378
#3	.0072572	16.59366	7.658878	.0508359	1.073895	.0327563

Elem	Sr4077
Units	ppm
Avg	1.104458
Stddev	.004031
%RSD	.3649465
#1	1.104050
#2	1.100647
#3	1.108677

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3695.985	75588.33	10933.71	2586.712	3765.258
Stddev	16.935	298.65	42.61	14.734	20.009
%RSD	.4582132	.3951023	.3897264	.5696028	.5314145
#1	3697.552	75286.57	10928.09	2583.902	3758.944
#2	3712.082	75594.66	10894.19	2573.586	3787.663
#3	3678.320	75883.77	10978.86	2602.649	3749.168

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-09 Acquired: 1/23/2025 18:41:44 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ44 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1216041	-.006900	7.232390	.0420043	.0303570	53.29319
Stddev	.0018504	.001984	.003981	.0017960	.0008129	.34679
%RSD	1.521635	28.75026	.0550428	4.275742	2.677703	.6507252
#1	.1196865	-.006444	7.232643	.0416048	.0294336	53.56184
#2	.1217467	-.005184	7.228288	.0439664	.0306728	52.90170
#3	.1233790	-.009071	7.236238	.0404417	.0309645	53.41604

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 25.33963	.0078924	.0528337	83.25994	.1951496	.1758049
Stddev	.23219	.0000123	.0002109	.41068	.0006112	.0000135
%RSD	.9163044	.1557528	.3991544	.4932554	.3131901	.0076979
#1	25.60193	.0078976	.0526040	83.49130	.1957647	.1758134
#2	25.25655	.0079013	.0528786	82.78577	.1951417	.1757893
#3	25.16042	.0078784	.0530185	83.50275	.1945424	.1758120

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3726294	198.1618	11.18749	23.49967	.1629559	.0035209
Stddev	.0047304	.9638	.06437	.12441	.0006959	.0003515
%RSD	1.269458	.4863582	.5753953	.5293932	.4270326	9.982743
#1	.3755500	198.9325	11.22345	23.64203	.1624924	.0033538
#2	.3671717	197.0812	11.11317	23.41189	.1626193	.0032841
#3	.3751664	198.4719	11.22584	23.44508	.1637561	.0039248

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6720135	.3579240	19.42873	9.448991	F 19.66137	.8268818
Stddev	.1278169	.0034562	.13952	.084447	.01104	.0048212
%RSD	19.01999	.9656132	.7181048	.8937183	.0561502	.5830626
#1	.7789146	.3612137	19.48068	9.441318	19.65860	.8314495
#2	.5304364	.3582357	19.27069	9.368641	19.65198	.8218418
#3	.7066897	.3543225	19.53483	9.537012	19.67353	.8273541

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-09 Acquired: 1/23/2025 18:41:44 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ44 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062000	F 11.61086	5.621706	.0234081	.9977331	.0199244
Stddev	.0001832	.02118	.005197	.0004793	.0020340	.0004226
%RSD	2.954756	.1824177	.0924529	2.047618	.2038627	2.120845
#1	.0062037	11.60276	5.625087	.0235213	.9998589	.0202461
#2	.0060149	11.59493	5.615721	.0238207	.9958054	.0200813
#3	.0063813	11.63490	5.624309	.0228824	.9975351	.0194458

Elem	Sr4077
Units	ppm
Avg	.2039422
Stddev	.0019987
%RSD	.9800278
#1	.2051986
#2	.2016375
#3	.2049907

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3765.321	77197.62	10935.54	2636.184	3991.780
Stddev	7.744	155.57	50.16	9.405	.827
%RSD	.2056673	.2015258	.4586711	.3567827	.0207130
#1	3772.330	77300.12	10980.10	2636.955	3990.987
#2	3757.008	77274.13	10881.22	2645.180	3992.637
#3	3766.626	77018.61	10945.30	2626.417	3991.715

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-10 Acquired: 1/23/2025 18:45:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ45 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2246295	-.006041	8.642727	.0622100	.0430783	88.30723
Stddev	.0020090	.002554	.028821	.0058119	.0013092	.65955
%RSD	.8943760	42.27389	.3334700	9.342435	3.039166	.7468799
#1	.2244239	-.004758	8.626540	.0603331	.0436810	88.72547
#2	.2227311	-.004384	8.625640	.0687284	.0439776	88.64931
#3	.2267334	-.008982	8.676003	.0575684	.0415763	87.54692

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 37.34667	.0102060	.1428468	213.5915	.3636723	.2207250
Stddev	.23197	.0000548	.0007380	1.3619	.0034926	.0006412
%RSD	.6211155	.5366239	.5166398	.6376333	.9603697	.2904772
#1	37.29695	.0102388	.1422315	213.5319	.3658882	.2201448
#2	37.59947	.0102365	.1426438	214.9822	.3654825	.2206168
#3	37.14360	.0101428	.1436650	212.2603	.3596462	.2214134

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8672362	321.1586	10.87356	93.81989	.2145901	.0067781
Stddev	.0043872	2.1746	.06814	.57297	.0009699	.0005628
%RSD	.5058888	.6771227	.6266284	.6107153	.4519588	8.303275
#1	.8623495	322.0750	10.85346	93.77945	.2138508	.0066537
#2	.8708362	322.7251	10.94949	94.41202	.2142313	.0062879
#3	.8685229	318.6757	10.81774	93.26821	.2156882	.0073927

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0915359	.6362714	F 73.56509	8.958593	8.564735	1.348053
Stddev	.2414481	.0012295	.50806	.068914	.029856	.011006
%RSD	263.7742	.1932266	.6906218	.7692520	.3485875	.8164602
#1	.1722717	.6356030	73.27825	8.998929	8.541484	1.351534
#2	.2822706	.6355211	74.15169	8.997829	8.554316	1.356899
#3	-.179935	.6376903	73.26532	8.879020	8.598404	1.335728

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-10 Acquired: 1/23/2025 18:45:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ45 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000487	F 15.16709	8.566097	.0535435	1.287124	.0337974
Stddev	.0003438	.08697	.011331	.0016476	.002804	.0007160
%RSD	706.4864	.5733878	.1322770	3.077060	.2178135	2.118466
#1	.0002198	15.10814	8.558480	.0554169	1.285124	.0338356
#2	-.000347	15.12616	8.560693	.0523198	1.290329	.0344935
#3	.000273	15.26697	8.579118	.0528939	1.285920	.0330630

Elem	Sr4077
Units	ppm
Avg	.3285531
Stddev	.0021028
%RSD	.6400040
#1	.3290702
#2	.3303490
#3	.3262400

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3715.397	75656.90	11268.36	2592.290	3736.140
Stddev	.555	634.10	34.98	20.317	1.353
%RSD	.0149445	.8381289	.3104472	.7837464	.0362064
#1	3715.326	75577.15	11297.65	2590.459	3737.520
#2	3714.880	75066.45	11229.62	2572.951	3736.082
#3	3715.984	76327.11	11277.81	2613.461	3734.816

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-11 Acquired: 1/23/2025 18:49:55 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ46 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1616186	-.006939	4.151979	.0535438	.0363132	72.97507
Stddev	.0041453	.002062	.024964	.0022885	.0025046	.73792
%RSD	2.564880	29.72226	.6012657	4.274033	6.897209	1.011191
#1	.1568332	-.009279	4.123575	.0561448	.0352378	72.41922
#2	.1641059	-.005388	4.161928	.0518395	.0391760	72.69371
#3	.1639166	-.006148	4.170436	.0526470	.0345260	73.81228

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 30.55068	.0083452	.0516348	128.8399	.2304453	.1480247
Stddev	.28001	.0003220	.0003631	1.0766	.0003085	.0004170
%RSD	.9165363	3.859013	.7032722	.8356360	.1338723	.2816780
#1	30.58992	.0087164	.0512389	128.0507	.2306540	.1475555
#2	30.80899	.0081783	.0517133	128.4026	.2300910	.1483529
#3	30.25312	.0081408	.0519523	130.0664	.2305911	.1481655

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6651660	261.1182	9.209578	22.35241	.1764882	.0063815
Stddev	.0040637	2.3231	.082429	.19448	.0013826	.0004709
%RSD	.6109347	.8896789	.8950328	.8700697	.7833678	7.379512
#1	.6698575	259.4859	9.144953	22.21482	.1750142	.0061107
#2	.6627414	260.0909	9.181374	22.26750	.1766943	.0061085
#3	.6628991	263.7779	9.302406	22.57491	.1777562	.0069253

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.073099	.4757817	26.26647	8.354837	F 12.52657	1.144851
Stddev	.334821	.0027431	.25274	.154011	.08410	.012148
%RSD	458.0413	.5765551	.9622245	1.843370	.6713914	1.061089
#1	.299791	.4786369	26.15610	8.226136	12.42947	1.137346
#2	-.171111	.4731663	26.08769	8.312904	12.57367	1.138341
#3	-.347976	.4755419	26.55563	8.525472	12.57656	1.158867

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-11 Acquired: 1/23/2025 18:49:55 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ46 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042930	F 14.47117	8.596269	.0248997	1.238046	.0282838
Stddev	.0006648	.07925	.011983	.0010641	.000369	.0007488
%RSD	15.48485	.5476248	.1393969	4.273343	.0297987	2.647432
#1	.0049711	14.38130	8.607554	.0260691	1.238459	.0274206
#2	.0042655	14.50117	8.597559	.0246418	1.237931	.0286725
#3	.0036424	14.53104	8.583693	.0239884	1.237749	.0287584

Elem	Sr4077
Units	ppm
Avg	.3699876
Stddev	.0042590
%RSD	1.151127
#1	.3663266
#2	.3689743
#3	.3746619

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3721.376	76502.04	11295.79	2619.604	3887.936
Stddev	25.844	95.47	99.43	10.251	22.125
%RSD	.6944733	.1247918	.8802118	.3913130	.5690783
#1	3751.191	76586.86	11210.35	2620.240	3913.374
#2	3705.381	76520.62	11272.09	2629.523	3873.169
#3	3707.555	76398.65	11404.92	2609.050	3877.264

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-12 Acquired: 1/23/2025 18:53:57 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ47 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1046257**	**-.003583**	**4.589002**	**.0471118**	**.0261620**	**62.75033**
Stddev	.0039272	.002476	.042643	.0009113	.0007902	.24997
%RSD	3.753594	69.10872	.9292382	1.934377	3.020388	.3983589
#1	.1057518	-.005557	4.590149	.0470900	.0259329	63.03802
#2	.1002584	-.000805	4.545797	.0480337	.0255118	62.58618
#3	.1078668	-.004388	4.631059	.0462115	.0270415	62.62679

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **25.10338**	**.0085495**	**.0109371**	**123.1255**	**.2505505**	**.2106413**
Stddev	.36147	.0000932	.0002490	.2869	.0001086	.0019551
%RSD	1.439929	1.089505	2.276405	.2330370	.0433428	.9281796
#1	25.11871	.0084984	.0110293	123.4567	.2505245	.2112942
#2	25.45694	.0086571	.0106552	122.9528	.2506698	.2084433
#3	24.73449	.0084932	.0111268	122.9670	.2504573	.2121864

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2879806**	**225.0120**	**14.10503**	**20.57644**	**.1431775**	**.0058626**
Stddev	.0026529	.9034	.04926	.05490	.0015812	.0003613
%RSD	.9212162	.4015016	.3492377	.2668250	1.104392	6.163495
#1	.2909872	226.0351	14.15946	20.63886	.1426767	.0062705
#2	.2869859	224.3239	14.06352	20.55483	.1419072	.0057349
#3	.2859688	224.6771	14.09210	20.53562	.1449484	.0055825

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3929637**	**.3740336**	**3.448832**	**7.390498**	F **39.39639**	**.9383826**
Stddev	.2461173	.0004111	.017163	.035087	.35340	.0025292
%RSD	62.63105	.1099081	.4976486	.4747572	.8970469	.2695254
#1	.3168515	.3739290	3.449607	7.417141	39.49202	.9406566
#2	.6681462	.3744869	3.431294	7.350744	39.00502	.9356587
#3	.1938934	.3736850	3.465593	7.403610	39.69214	.9388325

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-12 Acquired: 1/23/2025 18:53:57 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ47 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098481	F 16.46271	7.250152	.0104953	1.136793	.0194599
Stddev	.0001374	.18386	.002143	.0028144	.003597	.0003968
%RSD	1.395236	1.116841	.0295599	26.81554	.3163859	2.039032
#1	.0099934	16.46456	7.252613	.0074037	1.140653	.0199157
#2	.0098305	16.27792	7.248701	.0111740	1.136189	.0192722
#3	.0097203	16.64563	7.249141	.0129083	1.133536	.0191918

Elem	Sr4077
Units	ppm
Avg	.2741371
Stddev	.0008995
%RSD	.3281228
#1	.2751757
#2	.2736184
#3	.2736171

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3766.789	77102.33	11278.36	2625.877	3941.548
Stddev	24.492	289.25	57.44	8.518	32.183
%RSD	.6502080	.3751458	.5092941	.3243797	.8165171
#1	3765.461	76773.50	11227.99	2619.126	3937.761
#2	3791.918	77216.08	11266.18	2635.447	3975.457
#3	3742.988	77317.40	11340.91	2623.058	3911.426

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-13 Acquired: 1/23/2025 18:58:00 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ48 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1459205	-.007492	7.619702	.0496678	.0346285	81.45600
Stddev	.0050865	.002917	.016547	.0026212	.0010507	.36872
%RSD	3.485788	38.93003	.2171636	5.277403	3.034154	.4526667
#1	.1448665	-.010298	7.607058	.0494365	.0334153	81.03837
#2	.1414436	-.004476	7.613618	.0523969	.0352435	81.73654
#3	.1514514	-.007702	7.638430	.0471699	.0352266	81.59310

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 30.69547	.0113242	.0547487	283.8376	.2465452	.1963657
Stddev	.39219	.0002304	.0001500	1.1129	.0004247	.0002602
%RSD	1.277670	2.034824	.2740346	.3921049	.1722772	.1324833
#1	30.46854	.0115687	.0545835	282.5721	.2463283	.1961559
#2	31.14833	.0111110	.0547860	284.6640	.2462727	.1962843
#3	30.46955	.0112930	.0548765	284.2768	.2470346	.1966568

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5468033	257.8046	15.58615	114.0271	.2484832	.0091383
Stddev	.0018893	1.1940	.06219	.4508	.0001890	.0003671
%RSD	.3455131	.4631557	.3989962	.3953164	.0760677	4.017430
#1	.5489041	256.4972	15.52065	113.5213	.2483189	.0087374
#2	.5462620	258.8374	15.64438	114.3863	.2484410	.0092197
#3	.5452437	258.0791	15.59344	114.1737	.2486898	.0094580

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7090222	.4314232	7.896955	8.896118	F 10.62453	1.116113
Stddev	.3130970	.0023783	.019596	.029277	.04207	.005097
%RSD	44.15899	.5512707	.2481439	.3291039	.3959406	.4566371
#1	.5858908	.4322631	7.874478	8.864842	10.60631	1.110290
#2	.4762092	.4332676	7.910450	8.900642	10.59465	1.119761
#3	1.064966	.4287389	7.905937	8.922870	10.67264	1.118289

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-13 Acquired: 1/23/2025 18:58:00 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ48 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0103694	F 14.54549	6.516109	.0395168	1.060638	.0444179
Stddev	.0003481	.04086	.015967	.0007798	.001475	.0024868
%RSD	3.357014	.2808816	.2450371	1.973400	.1390379	5.598601
#1	.0107013	14.50870	6.499940	.0403864	1.059738	.0441638
#2	.0103998	14.53831	6.531866	.0392842	1.062340	.0420680
#3	.0100071	14.58946	6.516521	.0388797	1.059837	.0470220

Elem	Sr4077
Units	ppm
Avg	.3125872
Stddev	.0011373
%RSD	.3638232
#1	.3115758
#2	.3138183
#3	.3123676

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3638.629	75098.80	11366.31	2570.470	3631.008
Stddev	7.615	133.93	27.29	1.677	7.041
%RSD	.2092916	.1783346	.2400598	.0652284	.1939216
#1	3646.308	75243.36	11334.83	2570.055	3637.367
#2	3638.501	74978.94	11380.86	2572.316	3632.218
#3	3631.079	75074.10	11383.24	2569.041	3623.441

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-14 Acquired: 1/23/2025 19:02:01 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ49 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1552632**	**-.008577**	**4.078148**	**.0628188**	**.0443764**	**81.44160**
Stddev	.0022468	.002419	.010904	.0052929	.0022097	.68536
%RSD	1.447125	28.20479	.2673843	8.425679	4.979360	.8415371
#1	.1572256	-.008002	4.076930	.0685408	.0433145	80.71249
#2	.1528123	-.006497	4.067903	.0618177	.0469165	81.53967
#3	.1557518	-.011231	4.089610	.0580980	.0428981	82.07264

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **27.78230**	**.0085138**	**.0335867**	**366.3299**	**.2799183**	**.1710411**
Stddev	.11336	.0002058	.0001274	2.1911	.0003975	.0004130
%RSD	.4080130	2.417305	.3792355	.5981252	.1420052	.2414717
#1	27.82158	.0083053	.0336995	364.1704	.2803366	.1706006
#2	27.65453	.0087168	.0336121	366.2679	.2795455	.1711031
#3	27.87079	.0085192	.0334486	368.5513	.2798729	.1714197

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4552452**	**313.1645**	**10.26216**	**182.8525**	**.2262355**	**.0052405**
Stddev	.0060008	2.3861	.08018	.9940	.0007998	.0007532
%RSD	1.318151	.7619195	.7813422	.5436055	.3535051	14.37207
#1	.4493661	310.5927	10.20501	181.7554	.2262345	.0043709
#2	.4550087	313.5945	10.22765	183.1090	.2254363	.0056639
#3	.4613608	315.3063	10.35382	183.6932	.2270358	.0056867

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0381851**	**.4613974**	**10.54929**	**11.04211**	**9.511218**	**1.325748**
Stddev	.1174576	.0068053	.10490	.08200	.029126	.010197
%RSD	307.6004	1.474925	.9943894	.7425856	.3062306	.7691358
#1	-.041762	.4535802	10.47721	10.95250	9.487574	1.315318
#2	-.016724	.4646129	10.50103	11.06042	9.502325	1.326230
#3	.173041	.4659991	10.66964	11.11339	9.543753	1.335695

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-14 Acquired: 1/23/2025 19:02:01 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ49 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0104295	F 11.31011	8.216433	.1731830	1.301839	.0390853
Stddev	.0007493	.04134	.112668	.0004440	.017149	.0007329
%RSD	7.184078	.3654960	1.371250	.2563545	1.317273	1.875023
#1	.0112654	11.27590	8.086385	.1730384	1.282311	.0387943
#2	.0098182	11.29837	8.284578	.1728293	1.308766	.0385426
#3	.0102049	11.35604	8.278335	.1736812	1.314442	.0399190

Elem	Sr4077
Units	ppm
Avg	.3267848
Stddev	.0028299
%RSD	.8659959
#1	.3242900
#2	.3262044
#3	.3298599

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3489.008	72608.83	11080.99	2473.633	3550.858
Stddev	8.879	1.16	116.65	7.463	8.029
%RSD	.2544761	.0015984	1.052732	.3016997	.2261020
#1	3488.473	72607.53	11205.95	2478.665	3549.767
#2	3498.142	72609.22	10974.96	2477.175	3559.377
#3	3480.409	72609.75	11062.06	2465.058	3543.431

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-15 Acquired: 1/23/2025 19:06:12 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ50 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0990211	-.014610	16.96980	.0340299	.0345584	25.05589
Stddev	.0029713	.004029	.06150	.0039194	.0017881	.13777
%RSD	3.000691	27.57611	.3624125	11.51751	5.174116	.5498494
#1	.1018372	-.018501	17.00839	.0368943	.0363002	25.15721
#2	.0993105	-.010457	16.89888	.0295632	.0346478	24.89901
#3	.0959157	-.014871	17.00213	.0356321	.0327273	25.11144

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.43665	.0080707	.2325661	F 1047.308	.1723940	.2569831
Stddev	.35838	.0001330	.0007946	3.661	.0008036	.0011232
%RSD	1.753597	1.647687	.3416749	.3495749	.4661204	.4370859
#1	20.04936	.0080554	.2327876	1043.097	.1730221	.2576458
#2	20.75655	.0082107	.2316842	1049.086	.1726714	.2556863
#3	20.50402	.0079461	.2332264	1049.740	.1714885	.2576174

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.185098	268.4712	21.99278	481.7689	.2683179	.0212322
Stddev	.006377	.7557	.01753	.7429	.0014124	.0003184
%RSD	.5381077	.2814867	.0796923	.1541988	.5263809	1.499701
#1	1.192300	269.2614	22.01279	482.5237	.2680927	.0215927
#2	1.182826	267.7555	21.98538	481.7447	.2670316	.0211146
#3	1.180168	268.3968	21.98016	481.0385	.2698293	.0209893

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.753215	.1729225	16.33029	2.509375	5.487170	1.143538
Stddev	.294819	.0008434	.05326	.016260	.020625	.004501
%RSD	39.14134	.4877261	.3261652	.6479847	.3758707	.3935972
#1	-.442039	.1722478	16.34289	2.501148	5.497954	1.146967
#2	-1.02837	.1738680	16.37612	2.498872	5.463389	1.138442
#3	-.78924	.1726517	16.27185	2.528105	5.500167	1.145206

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-15 Acquired: 1/23/2025 19:06:12 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ50 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049582	F 29.91582	5.155748	.0137015	.5207377	.0363977
Stddev	.0004416	.12336	.015336	.0006592	.0032677	.0007571
%RSD	8.907440	.4123541	.2974527	4.811286	.6275055	2.080147
#1	.0045066	29.99628	5.159695	.0142442	.5243291	.0365903
#2	.0053892	29.77380	5.168725	.0129679	.5199443	.0355629
#3	.0049789	29.97739	5.138824	.0138923	.5179399	.0370400

Elem	Sr4077
Units	ppm
Avg	.4697194
Stddev	.0011319
%RSD	.2409803
#1	.4703904
#2	.4684126
#3	.4703554

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3259.891	67192.32	10309.25	2269.556	3257.337
Stddev	4.405	220.37	83.22	13.016	8.060
%RSD	.1351159	.3279704	.8072718	.5734955	.2474361
#1	3255.682	67173.99	10275.93	2261.684	3254.014
#2	3264.468	66981.69	10247.85	2262.406	3266.527
#3	3259.522	67421.29	10403.97	2284.580	3251.469

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-16 Acquired: 1/23/2025 19:10:22 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ51 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0945054**	**-.007206**	**4.007646**	**.0478256**	**.0319928**	**78.70948**
Stddev	.0003165	.002482	.001958	.0027884	.0016834	.61481
%RSD	.3348759	34.44352	.0488619	5.830434	5.261846	.7811192
#1	.0944337	-.009931	4.005768	.0446204	.0305816	79.01101
#2	.0942309	-.005073	4.009676	.0496943	.0315408	78.00211
#3	.0948516	-.006615	4.007495	.0491619	.0338561	79.11532

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.86102**	**.0086428**	**.0223251**	**206.1687**	**.2066400**	**.1351727**
Stddev	.13664	.0002034	.0000807	1.2117	.0009763	.0006248
%RSD	.8104006	2.353394	.3613884	.5877188	.4724676	.4622312
#1	16.83218	.0085070	.0224159	206.7782	.2055152	.1345826
#2	16.74110	.0088767	.0222616	204.7733	.2072680	.1351083
#3	17.00978	.0085447	.0222979	206.9546	.2071368	.1358272

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8480806**	**220.2723**	**8.740437**	**63.67215**	**.2021321**	**.0082845**
Stddev	.0024909	1.1354	.056494	.26103	.0005535	.0011134
%RSD	.2937083	.5154747	.6463518	.4099634	.2738205	13.43975
#1	.8505848	220.7828	8.771023	63.87692	.2015033	.0089086
#2	.8480536	218.9712	8.675244	63.37822	.2025455	.0069990
#3	.8456033	221.0629	8.775042	63.76131	.2023476	.0089459

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.824027**	**.3543698**	**8.792280**	**10.30096**	F **12.76313**	**1.079589**
Stddev	.324331	.0011786	.055620	.10111	.01724	.006127
%RSD	11.48469	.3325993	.6325964	.9815875	.1350698	.5675490
#1	2.643436	.3530101	8.801733	10.38589	12.74924	1.081815
#2	2.630191	.3551009	8.732539	10.18911	12.75772	1.072660
#3	3.198454	.3549984	8.842567	10.32788	12.78242	1.084293

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-16 Acquired: 1/23/2025 19:10:22 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ51 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075803	F 16.14574	6.619626	.0430730	1.203834	.0456604
Stddev	.0002471	.01789	.023316	.0006264	.001234	.0003177
%RSD	3.259391	.1107986	.3522189	1.454214	.1024753	.6957102
#1	.0078303	16.15365	6.607417	.0434194	1.203512	.0459763
#2	.0073363	16.12526	6.646511	.0423499	1.202794	.0453411
#3	.0075744	16.15831	6.604952	.0434495	1.205197	.0456639

Elem	Sr4077
Units	ppm
Avg	.3064462
Stddev	.0030876
%RSD	1.007547
#1	.3081476
#2	.3028822
#3	.3083088

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3730.256	76135.04	11250.51	2607.487	3832.714
Stddev	1.709	104.15	104.31	6.587	.668
%RSD	.0458148	.1367991	.9271795	.2526148	.0174181
#1	3728.654	76226.96	11317.82	2613.889	3833.456
#2	3732.055	76021.92	11130.35	2600.729	3832.161
#3	3730.060	76156.25	11303.35	2607.842	3832.526

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-17 Acquired: 1/23/2025 19:14:24 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ52 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1143957**	**-.004011**	**5.564556**	**.0403695**	**.0291925**	**64.72632**
Stddev	.0015841	.001423	.017873	.0044427	.0013998	.27475
%RSD	1.384762	35.47332	.3211894	11.00511	4.794879	.4244753
#1	.1150861	-.004030	5.557758	.0401333	.0279822	64.95132
#2	.1155175	-.005423	5.551080	.0449256	.0307254	64.42013
#3	.1125836	-.002578	5.584831	.0360496	.0288700	64.80751

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **31.40538**	**.0084432**	**.0459114**	**180.9016**	**.5378595**	**.1573218**
Stddev	.41972	.0000641	.0001304	.7906	.0027717	.0009550
%RSD	1.336466	.7595050	.2841230	.4370233	.5153204	.6070330
#1	31.75976	.0083692	.0458958	181.4049	.5398656	.1573008
#2	30.94187	.0084821	.0457895	179.9904	.5346968	.1563775
#3	31.51452	.0084783	.0460489	181.3095	.5390160	.1582871

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3618493**	**214.2503**	**10.64318**	**72.78115**	**.1978446**	**.0063240**
Stddev	.0020296	1.1987	.05719	.36166	.0002794	.0003339
%RSD	.5608939	.5594885	.5373402	.4969126	.1412219	5.280450
#1	.3624404	215.0892	10.68111	72.99416	.1981664	.0066826
#2	.3635177	212.8774	10.57740	72.36357	.1977034	.0060219
#3	.3595898	214.7844	10.67102	72.98572	.1976640	.0062675

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5176334**	**.3586327**	**4.837167**	**7.535006**	**8.055909**	**.9219466**
Stddev	.3218107	.0010961	.022933	.094922	.028358	.0045809
%RSD	62.16961	.3056436	.4740990	1.259743	.3520173	.4968722
#1	.8050435	.3594561	4.818959	7.566138	8.055601	.9238138
#2	.5779105	.3573885	4.862922	7.428428	8.027706	.9167270
#3	.1699463	.3590535	4.829619	7.610453	8.084420	.9252990

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-17 Acquired: 1/23/2025 19:14:24 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ52 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091947	F 13.40242	7.571779	.0902125	1.156961	.0287764
Stddev	.0005803	.06035	.024789	.0008316	.002498	.0012119
%RSD	6.311644	.4502732	.3273816	.9217917	.2159532	4.211561
#1	.0097343	13.38505	7.596549	.0906505	1.159539	.0281452
#2	.0092688	13.35267	7.546972	.0892535	1.156793	.0301737
#3	.0085808	13.46955	7.571817	.0907335	1.154551	.0280104

Elem	Sr4077
Units	ppm
Avg	.2553864
Stddev	.0014364
%RSD	.5624606
#1	.2564120
#2	.2537447
#3	.2560027

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3724.884	75588.04	11085.88	2592.528	3858.550
Stddev	11.311	402.86	16.42	9.718	13.528
%RSD	.3036493	.5329653	.1481206	.3748449	.3505851
#1	3725.348	75406.83	11073.16	2603.494	3856.367
#2	3735.955	76049.68	11104.42	2584.986	3873.036
#3	3713.348	75307.60	11080.05	2589.103	3846.247

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-18 Acquired: 1/23/2025 19:18:27 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ53 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1276444	-.004272	5.592470	.0462386	.0352732	71.02617
Stddev	.0015552	.001495	.004534	.0021079	.0009365	.13209
%RSD	1.218363	35.00715	.0810714	4.558763	2.655054	.1859695
#1	.1258566	-.004523	5.591745	.0483620	.0351731	71.17424
#2	.1283925	-.005626	5.588342	.0441466	.0343907	70.92046
#3	.1286842	-.002667	5.597322	.0462071	.0362558	70.98381

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 28.43008	.0083256	.0362015	224.6763	.2611165	.1448726
Stddev	.23089	.0000401	.0001831	.5808	.0007774	.0006861
%RSD	.8121435	.4813237	.5058472	.2585200	.2977086	.4736198
#1	28.69666	.0083717	.0360588	225.2042	.2605009	.1455345
#2	28.30067	.0082994	.0364080	224.0540	.2608585	.1441645
#3	28.29291	.0083058	.0361376	224.7706	.2619900	.1449188

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5325680	250.3975	10.07017	95.31834	.2500496	.0059794
Stddev	.0033884	.7429	.02881	.25468	.0002653	.0001968
%RSD	.6362462	.2966972	.2860438	.2671856	.1061049	3.291851
#1	.5290705	251.1084	10.08728	95.56164	.2498155	.0060654
#2	.5327978	249.6263	10.03691	95.05364	.2503378	.0057542
#3	.5358357	250.4579	10.08631	95.33973	.2499954	.0061185

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.411152	.3675133	8.876658	8.300048	F 12.81826	1.091968
Stddev	.176953	.0009513	.049813	.108810	.01323	.004468
%RSD	12.53959	.2588505	.5611649	1.310961	.1032250	.4092127
#1	1.532607	.3676420	8.929685	8.387893	12.80599	1.096656
#2	1.208126	.3665042	8.830847	8.178330	12.83228	1.087757
#3	1.492724	.3683937	8.869443	8.333922	12.81650	1.091490

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-18 Acquired: 1/23/2025 19:18:27 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ53 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079868	F 12.23150	7.755186	.0450953	1.258557	.0359434
Stddev	.0002297	.00355	.009574	.0012969	.004330	.0012705
%RSD	2.876275	.0290010	.1234539	2.875812	.3440372	3.534655
#1	.0077430	12.23414	7.763858	.0456123	1.261044	.0345128
#2	.0081992	12.22747	7.756788	.0460540	1.253557	.0369399
#3	.0080182	12.23289	7.744912	.0436197	1.261069	.0363775

Elem	Sr4077
Units	ppm
Avg	.3312322
Stddev	.0005781
%RSD	.1745255
#1	.3314413
#2	.3305787
#3	.3316766

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3668.834	74260.47	11007.69	2560.207	3788.786
Stddev	1.291	88.33	16.86	6.467	3.424
%RSD	.0351749	.1189421	.1531853	.2525834	.0903638
#1	3667.446	74240.22	11022.57	2553.979	3786.995
#2	3669.058	74357.16	11011.13	2566.889	3786.629
#3	3669.998	74184.02	10989.38	2559.754	3792.733

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-19 Acquired: 1/23/2025 19:22:29 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ54 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2286778**	**-.009642**	**7.950710**	**.0536957**	**.0402452**	**80.75308**
Stddev	.0007788	.001582	.030678	.0018089	.0002444	.34539
%RSD	.3405800	16.41194	.3858568	3.368823	.6073403	.4277057
#1	.2294200	-.009011	7.979729	.0516610	.0404470	80.64598
#2	.2287467	-.008472	7.918606	.0543041	.0399734	81.13933
#3	.2278669	-.011442	7.953795	.0551220	.0403152	80.47394

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **30.06138**	**.0090106**	**.0527518**	**215.6383**	**.3830308**	**.1679993**
Stddev	.05328	.0000865	.0003796	.7475	.0018795	.0003174
%RSD	.1772495	.9595603	.7196072	.3466566	.4906795	.1889414
#1	30.03256	.0090497	.0531587	215.0491	.3826510	.1682210
#2	30.02872	.0089115	.0524072	216.4792	.3850711	.1676356
#3	30.12287	.0090706	.0526894	215.3867	.3813702	.1681411

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.544379**	**267.2011**	**11.18032**	**85.39885**	**.2666136**	**.0218380**
Stddev	.000659	.7995	.04534	.30966	.0014085	.0002433
%RSD	.0426815	.2992134	.4055360	.3626004	.5283073	1.114200
#1	1.544070	266.7352	11.14477	85.20790	.2678378	.0220311
#2	1.545136	268.1243	11.23138	85.75613	.2650741	.0219182
#3	1.543931	266.7439	11.16482	85.23252	.2669287	.0215647

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.466263**	**.3804671**	**12.50660**	**9.780951**	F **16.02723**	**1.152784**
Stddev	.332294	.0020108	.04626	.082968	.06851	.004011
%RSD	13.47359	.5285028	.3698652	.8482584	.4274759	.3479686
#1	2.324096	.3784608	12.45357	9.756431	16.06272	1.150034
#2	2.228703	.3804582	12.52756	9.873415	15.94825	1.157387
#3	2.845990	.3824823	12.53867	9.713007	16.07071	1.150931

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-19 Acquired: 1/23/2025 19:22:29 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ54 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0088837	F 14.49193	7.578181	.0791498	1.400692	.0459473
Stddev	.0002052	.07554	.017022	.0006800	.004644	.0010675
%RSD	2.310207	.5212817	.2246205	.8591243	.3315685	2.323236
#1	.0087638	14.53261	7.571647	.0797414	1.396235	.0457697
#2	.0091207	14.40477	7.565394	.0793012	1.400338	.0470924
#3	.0087666	14.53842	7.597502	.0784069	1.405504	.0449797

Elem	Sr4077
Units	ppm
Avg	.3358327
Stddev	.0013954
%RSD	.4155196
#1	.3349546
#2	.3374418
#3	.3351018

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3671.793	75453.83	11232.85	2594.675	3759.863
Stddev	13.853	264.84	54.94	11.360	10.929
%RSD	.3772711	.3510010	.4891272	.4378182	.2906756
#1	3655.816	75759.62	11263.53	2607.145	3747.484
#2	3679.120	75297.10	11265.60	2591.965	3763.932
#3	3680.444	75304.78	11169.42	2584.915	3768.175

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV005 Acquired: 1/23/2025 19:26:30 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV005 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.823425**	**4.758111**	**24.30703**	**4.782081**	**4.844764**	**394.8081**
Stddev	.004816	.033124	.05378	.007555	.005809	4.1794
%RSD	.0998500	.6961540	.2212635	.1579891	.1198938	1.058580
#1	4.822714	4.723584	24.29090	4.787658	4.851330	391.9777
#2	4.819003	4.761121	24.36703	4.773483	4.840296	399.6084
#3	4.828557	4.789626	24.26316	4.785103	4.842666	392.8383

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.895041**	**.4931824**	**2.470404**	**395.2478**	**15.65323**	**2.451958**
Stddev	.059615	.0015482	.006444	4.0521	.03204	.003830
%RSD	.6024726	.3139195	.2608566	1.025203	.2046875	.1561941
#1	9.869977	.4923611	2.465928	392.3415	15.63334	2.449846
#2	9.963096	.4922178	2.477790	399.8765	15.69019	2.456379
#3	9.852050	.4949682	2.467495	393.5253	15.63615	2.449650

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.35113**	**405.7383**	**14.76113**	**399.5037**	**2.453759**	**1.276536**
Stddev	.05602	1.8707	.11257	1.6649	.006598	.002020
%RSD	.3903320	.4610663	.7626358	.4167392	.2689099	.1582731
#1	14.35271	406.3798	14.78664	400.2778	2.449987	1.277577
#2	14.40634	407.2039	14.85876	400.6407	2.461378	1.277823
#3	14.29434	403.6312	14.63800	397.5927	2.449913	1.274207

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**376.9513**	**2.439630**	**15.08617**	**152.4342**	**5.034327**	F **5.874852**
Stddev	2.0706	.002177	.10117	.8869	.015628	.006263
%RSD	.5493075	.0892543	.6706016	.5818563	.3104354	.1066119
#1	377.7157	2.442141	15.10491	152.6390	5.025028	5.869391
#2	378.5310	2.438265	15.17665	153.2008	5.052370	5.873475
#3	374.6071	2.438483	14.97694	151.4628	5.025583	5.881689

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV005 Acquired: 1/23/2025 19:26:30 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV005 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.793350**	**4.956937**	**4.837029**	**4.991922**	**4.842868**	**4.904857**
Stddev	.004488	.013917	.016506	.013773	.016715	.042418
%RSD	.0936384	.2807548	.3412443	.2759138	.3451458	.8648093
#1	4.793525	4.952803	4.833325	4.981833	4.836722	4.915013
#2	4.797749	4.972453	4.855072	5.007613	4.861785	4.941274
#3	4.788777	4.945556	4.822690	4.986318	4.830096	4.858283

Elem	Sr4077
Units	ppm
Avg	**4.988823**
Stddev	.020669
%RSD	.4143073
#1	4.995543
#2	4.965630
#3	5.005295

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2834.486**	**59974.56**	**9221.715**	**2067.267**	**3248.660**
Stddev	5.752	303.43	24.786	8.833	7.734
%RSD	.2029385	.5059382	.2687789	.4272754	.2380687
#1	2829.075	60053.37	9249.501	2064.796	3245.394
#2	2833.857	59639.50	9201.879	2059.934	3243.096
#3	2840.527	60230.82	9213.766	2077.073	3257.492

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB005 Acquired: 1/23/2025 19:30:47 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB005 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001620**	**-.000016**	**.0005777**	**.0017236**	**-.000316**	**-.002518**	**-.001205**
Stddev	.002298	.000919	.0012665	.0022284	.000306	.007360	.000447
%RSD	141.9053	5872.838	219.2389	129.2927	96.89916	292.3453	37.10454
#1	.000847	-.001048	-.000131	.0007552	-.000012	-.000728	-.001350
#2	-.002005	.000289	.002040	.0001431	-.000624	.003783	-.001561
#3	-.003701	.000713	-.000176	.0042724	-.000311	-.010608	-.000703

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000264**	**.0000546**	**.0149492**	**.0004664**	**.0001357**	**.0017360**	**.0071721**
Stddev	.0000527	.0001037	.0070702	.0002939	.0001358	.0017300	.0029127
%RSD	199.8089	189.8917	47.29475	63.01186	100.0758	99.65798	40.61134
#1	-.000034	-.000060	.0102664	.0004364	.0002480	.0037024	.0042890
#2	.000050	.000143	.0230821	.0001887	-.000015	.0004483	.0101135
#3	.000063	.000080	.0114991	.0007742	.000174	.0010572	.0071137

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004953**	**.0202357**	**.0005460**	**-.000582**	**.2146424**	**.0008180**	**-.001485**
Stddev	.0002231	.0044181	.0003148	.000260	.0752507	.0017386	.000962
%RSD	45.04826	21.83315	57.66026	44.68124	35.05864	212.5439	64.76622
#1	.0007328	.0242803	.0003606	-.000863	.2993347	.0025053	-.002537
#2	.0004632	.0209060	.0003679	-.000350	.1554713	.0009164	-.000651
#3	.0002900	.0155207	.0009095	-.000534	.1891212	-.000968	-.001266

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.184422**	**.0020101**	**.0033452**	**.0000932**	**-.000714**	**.0062131**	**-.000235**
Stddev	.065032	.0010300	.0005017	.0003100	.003652	.0017341	.000701
%RSD	35.26283	51.23976	14.99845	332.7427	511.4432	27.90997	297.5830
#1	-.251850	.0008575	.0039223	-.000121	-.001062	.0071699	-.000687
#2	-.122084	.0023327	.0031010	-.000048	.003099	.0042114	.000572
#3	-.179332	.0028402	.0030123	.000449	-.004179	.0072581	-.000591

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB005 Acquired: 1/23/2025 19:30:47 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB005 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000132**	**-.003538**	**.0000673**
Stddev	.000771	.001540	.0000559
%RSD	585.1174	43.50822	82.96946
#1	-.000264	-.005250	.0000180
#2	-.000828	-.003100	.0000561
#3	.000697	-.002266	.0001280

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3587.672**	**71714.80**	**9742.370**	**2488.365**	**4487.205**
Stddev	8.537	252.45	142.280	8.009	9.219
%RSD	.2379605	.3520173	1.460428	.3218507	.2054527
#1	3591.230	71430.03	9906.312	2481.227	4490.501
#2	3577.932	71803.22	9669.664	2497.026	4476.791
#3	3593.856	71911.14	9651.133	2486.844	4494.323

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-20 Acquired: 1/23/2025 19:34:58 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ55 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1478685**	**-.008253**	**4.811591**	**.0599404**	**.0370275**	**108.4140**
Stddev	.0022569	.002260	.007612	.0006976	.0008110	.5211
%RSD	1.526280	27.38454	.1582091	1.163879	2.190216	.4807002
#1	.1480385	-.005690	4.813150	.0596772	.0363487	108.1384
#2	.1455314	-.009109	4.803320	.0594127	.0368082	108.0884
#3	.1500355	-.009960	4.818303	.0607314	.0379256	109.0150

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **26.22386**	**.0109984**	**.0333717**	**275.6140**	**.2723381**	**.2122925**
Stddev	.16915	.0002330	.0001511	.9999	.0006482	.0002988
%RSD	.6450193	2.118225	.4528181	.3627857	.2380156	.1407328
#1	26.21452	.0110318	.0332700	274.8498	.2722944	.2126194
#2	26.05958	.0112128	.0332998	275.2467	.2717129	.2122245
#3	26.39749	.0107505	.0335454	276.7456	.2730071	.2120336

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.824806**	**293.7620**	**13.69544**	**124.1698**	**.2768645**	**.0084739**
Stddev	.015809	1.1619	.05394	.3929	.0002261	.0002123
%RSD	.4133371	.3955267	.3938810	.3164408	.0816739	2.505089
#1	3.842350	293.1815	13.66204	123.9405	.2767907	.0086030
#2	3.820406	293.0047	13.66659	123.9455	.2766844	.0082289
#3	3.811663	295.0997	13.75767	124.6235	.2771183	.0085898

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3204889**	**.4762937**	**5.689300**	**17.34663**	F **15.60975**	**1.260887**
Stddev	.1253857	.0035769	.018712	.08284	.04156	.006483
%RSD	39.12326	.7509862	.3288949	.4775840	.2662539	.5141428
#1	.4638175	.4776314	5.701185	17.26368	15.62610	1.257945
#2	.2310978	.4722407	5.698984	17.34682	15.56250	1.256397
#3	.2665513	.4790090	5.667731	17.42937	15.64065	1.268319

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-20 Acquired: 1/23/2025 19:34:58 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ55 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0116577	F 12.51129	6.784404	.0785444	1.396220	.0579059
Stddev	.0000853	.04682	.012962	.0002915	.004061	.0010434
%RSD	.7313371	.3741905	.1910584	.3711813	.2908394	1.801804
#1	.0116831	12.53010	6.798722	.0787500	1.396749	.0574139
#2	.0117274	12.45800	6.773469	.0786725	1.399990	.0571995
#3	.0115627	12.54578	6.781022	.0782107	1.391920	.0591043

Elem	Sr4077
Units	ppm
Avg	.3317529
Stddev	.0011968
%RSD	.3607407
#1	.3312391
#2	.3308989
#3	.3331208

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3739.549	76003.80	11457.05	2625.523	3645.889
Stddev	6.836	62.57	49.80	14.230	3.355
%RSD	.1827895	.0823274	.4346834	.5420041	.0920291
#1	3736.591	76010.17	11420.46	2618.052	3643.272
#2	3734.691	76062.94	11436.94	2616.584	3644.725
#3	3747.365	75938.29	11513.77	2641.933	3649.672

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-21 Acquired: 1/23/2025 19:38:59 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ56 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.882334**	**2.164656**	**1.791995**	**.9683535**	**1.034040**	**46.78458**
Stddev	.006165	.016690	.002567	.0013333	.003509	.11470
%RSD	.3275121	.7710330	.1432393	.1376886	.3393722	.2451657
#1	1.876518	2.156508	1.790462	.9671504	1.032312	46.81034
#2	1.888797	2.153605	1.790564	.9681230	1.031731	46.65918
#3	1.881688	2.183855	1.794958	.9697870	1.038078	46.88420

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.855827**	F **1.741030**	**1.280077**	**59.11087**	**2.945949**	**2.048386**
Stddev	.007215	.002682	.001974	.02787	.000758	.002910
%RSD	.1871274	.1540198	.1541929	.0471552	.0257309	.1420690
#1	3.863984	1.741915	1.278006	59.09450	2.946035	2.045068
#2	3.850280	1.743158	1.280288	59.09506	2.945151	2.049586
#3	3.853218	1.738018	1.281937	59.14306	2.946660	2.050504

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.411558**	**70.94454**	**4.492411**	**16.74293**	**1.334100**	**.5277001**
Stddev	.004704	.11130	.007472	.03629	.001820	.0006130
%RSD	.3332571	.1568849	.1663268	.2167761	.1364583	.1161738
#1	1.413471	70.88442	4.500574	16.75658	1.332956	.5283350
#2	1.415005	70.87623	4.490748	16.77042	1.333144	.5271115
#3	1.406199	71.07297	4.485910	16.70179	1.336199	.5276539

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.588498**	**1.375173**	**4.092131**	**11.23719**	**2.493615**	**2.671275**
Stddev	.225357	.004983	.021036	.03243	.007697	.004850
%RSD	4.911347	.3623381	.5140516	.2886089	.3086619	.1815536
#1	4.742545	1.379367	4.099570	11.27133	2.485673	2.673602
#2	4.329849	1.369664	4.108437	11.20679	2.494132	2.674522
#3	4.693101	1.376486	4.068387	11.23344	2.501040	2.665700

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1047-21 Acquired: 1/23/2025 19:38:59 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ56 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5700762	.6124769	7.218271	1.256418	2.924161	1.216630
Stddev	.0011294	.0037066	.012912	.001185	.005196	.002992
%RSD	.1981062	.6051822	.1788862	.0942767	.1776854	.2459658
#1	.5687724	.6084794	7.232958	1.255529	2.924215	1.218310
#2	.5707041	.6158000	7.213155	1.255963	2.929330	1.213175
#3	.5707520	.6131515	7.208700	1.257763	2.918939	1.218404

Elem	Sr4077
Units	ppm
Avg	2.201078
Stddev	.026384
%RSD	1.198701
#1	2.224848
#2	2.205698
#3	2.172689

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3715.782	74273.73	10520.70	2577.578	4120.358
Stddev	7.770	159.70	44.27	12.736	8.289
%RSD	.2091002	.2150201	.4207537	.4940941	.2011617
#1	3721.615	74236.90	10506.94	2578.196	4124.919
#2	3718.769	74135.66	10484.95	2564.544	4125.364
#3	3706.962	74448.63	10570.21	2589.993	4110.791

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-01 Acquired: 1/23/2025 19:42:55 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0639951**	**-.007482**	**1.034605**	**.0109339**	**.0176094**	**36.57946**
Stddev	.0026314	.003100	.000255	.0023997	.0020543	.03395
%RSD	4.111933	41.43659	.0246400	21.94691	11.66596	.0928113
#1	.0670334	-.010438	1.034570	.0097148	.0152820	36.60099
#2	.0624468	-.007754	1.034370	.0136984	.0183762	36.59707
#3	.0625050	-.004255	1.034876	.0093885	.0191699	36.54032

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **24.96702**	**.0050139**	**.0192478**	F **858.9533**	**.1195745**	**.1176544**
Stddev	.12154	.0000807	.0001486	7.9603	.0005192	.0002545
%RSD	.4868039	1.610086	.7718076	.9267398	.4341768	.2162792
#1	24.82783	.0050266	.0193768	860.7801	.1197413	.1175119
#2	25.05211	.0049275	.0190854	865.8413	.1189924	.1179482
#3	25.02113	.0050874	.0192812	850.2384	.1199898	.1175032

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1324293**	**114.1341**	**9.699062**	**480.4431**	**.1200797**	**.0006896**
Stddev	.0022294	.2102	.011962	.8133	.0006436	.0003344
%RSD	1.683467	.1841795	.1233275	.1692753	.5359394	48.48857
#1	.1339141	113.9667	9.686905	480.6120	.1208217	.0004004
#2	.1298657	114.0655	9.710819	479.5587	.1196747	.0006126
#3	.1335081	114.3700	9.699463	481.1587	.1197426	.0010557

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.651946**	**.1918840**	**7.935841**	**3.205329**	**3.093487**	**.4936809**
Stddev	.184443	.0002456	.037463	.023254	.005565	.0023983
%RSD	28.29114	.1280189	.4720706	.7254925	.1799018	.4858052
#1	-.739518	.1921240	7.896116	3.201837	3.087384	.4933425
#2	-.440030	.1916330	7.940876	3.184018	3.094797	.4914697
#3	-.776289	.1918950	7.970532	3.230132	3.098280	.4962304

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-01 Acquired: 1/23/2025 19:42:55 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042765	F 22.12158	6.208033	.0070153	.9769315	.0406732
Stddev	.0001109	.00433	.015591	.0005672	.0025891	.0014572
%RSD	2.592271	.0195534	.2511446	8.085222	.2650205	3.582696
#1	.0041587	22.11686	6.190104	.0072771	.9760567	.0413708
#2	.0043788	22.12535	6.215584	.0074044	.9798446	.0389984
#3	.0042920	22.12254	6.218411	.0063645	.9748931	.0416506

Elem	Sr4077
Units	ppm
Avg	.6671935
Stddev	.0005984
%RSD	.0896884
#1	.6669752
#2	.6678704
#3	.6667349

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3213.837	64687.81	9653.493	2211.547	3370.647
Stddev	3.497	79.04	8.496	6.953	3.481
%RSD	.1088177	.1221864	.0880133	.3144168	.1032760
#1	3214.802	64600.33	9647.750	2217.748	3368.539
#2	3216.751	64754.09	9649.475	2212.864	3374.665
#3	3209.959	64709.01	9663.253	2204.029	3368.737

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-02 Acquired: 1/23/2025 19:47:08 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0973446**	**-.008925**	**32.77015**	**.0052953**	**.0332428**	**6.817825**
Stddev	.0014859	.000708	.01543	.0032141	.0027829	.060776
%RSD	1.526436	7.937319	.0470888	60.69769	8.371320	.8914339
#1	.0979761	-.009185	32.75621	.0017589	.0344965	6.770118
#2	.0956472	-.008123	32.76750	.0060883	.0300536	6.886252
#3	.0984104	-.009466	32.78673	.0080387	.0351782	6.797106

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.840416**	**.0006119**	**.1051813**	F **2077.912**	**.0599414**	**.0481439**
Stddev	.107250	.0000715	.0003177	27.099	.0011287	.0001811
%RSD	1.089895	11.68527	.3020524	1.304155	1.883056	.3760959
#1	9.808672	.0006095	.1051661	2062.301	.0599066	.0482666
#2	9.959954	.0006845	.1048715	2109.203	.0610871	.0482292
#3	9.752620	.0005416	.1055064	2062.231	.0588304	.0479360

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2234018**	**153.7568**	**3.303945**	F **1191.708**	**.1309726**	**.0019598**
Stddev	.0010468	1.5941	.028173	12.584	.0004794	.0002952
%RSD	.4685915	1.036765	.8526961	1.055950	.3660416	15.06275
#1	.2245466	152.4431	3.285729	1182.060	.1310765	.0018467
#2	.2231654	155.5303	3.336394	1205.942	.1313915	.0017378
#3	.2224934	153.2971	3.289712	1187.123	.1304497	.0022948

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.124487**	**.1332575**	F **32.98710**	**.2110216**	**1.608553**	**.6908653**
Stddev	.071725	.0002620	.15582	.0325349	.007782	.0071055
%RSD	57.61677	.1966009	.4723595	15.41779	.4838061	1.028489
#1	-.147473	.1334416	32.87528	.1744306	1.599607	.6866451
#2	-.044086	.1333733	33.16508	.2219457	1.612287	.6990689
#3	-.181902	.1329576	32.92095	.2366887	1.613763	.6868819

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-02 Acquired: 1/23/2025 19:47:08 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062943	F 120.7972	2.458332	.0110841	.1545985	.0568671
Stddev	.0003992	.3654	.002821	.0007425	.0004336	.0005406
%RSD	6.342675	.3024910	.1147594	6.698775	.2804706	.9506540
#1	.0066276	120.6598	2.457089	.0117099	.1550781	.0574581
#2	.0058518	120.5205	2.456346	.0112789	.1542343	.0567457
#3	.0064033	121.2114	2.461562	.0102637	.1544831	.0563975

Elem	Sr4077
Units	ppm
Avg	.9188231
Stddev	.0072652
%RSD	.7907119
#1	.9137438
#2	.9271450
#3	.9155805

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2710.293	56375.08	8857.921	1907.160	2910.955
Stddev	2.237	583.44	14.852	12.271	.517
%RSD	.0825197	1.034917	.1676678	.6434106	.0177457
#1	2708.300	56668.06	8846.751	1914.036	2911.068
#2	2709.867	55703.22	8852.237	1892.993	2911.406
#3	2712.712	56753.97	8874.775	1914.452	2910.392

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-03 Acquired: 1/23/2025 19:51:22 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ00 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1351307	-.002886	15.83071	.0485342	.0295698	62.76710
Stddev	.0018551	.000863	.02887	.0031654	.0006195	.15275
%RSD	1.372814	29.89803	.1823400	6.521932	2.095033	.2433614
#1	.1340795	-.003847	15.83228	.0450998	.0295743	62.81817
#2	.1340398	-.002634	15.80109	.0491680	.0301871	62.88777
#3	.1372726	-.002178	15.85876	.0513347	.0289481	62.59536

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.18541	.0092802	.0320559	68.09745	.2056821	.2204753
Stddev	.06167	.0000729	.0001290	.14240	.0003356	.0008630
%RSD	.3054999	.7857911	.4024267	.2091059	.1631540	.3914065
#1	20.24741	.0091986	.0320375	68.17886	.2053075	.2202757
#2	20.18474	.0093031	.0319371	68.18045	.2057836	.2197296
#3	20.12408	.0093389	.0321932	67.93302	.2059552	.2214206

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3198895	257.8030	14.45972	29.40439	.2271186	.0025284
Stddev	.0026750	.8402	.03474	.09399	.0008039	.0005826
%RSD	.8362241	.3259005	.2402562	.3196310	.3539375	23.04135
#1	.3170455	258.3965	14.47337	29.49329	.2276895	.0020297
#2	.3223552	258.1709	14.48556	29.41384	.2261993	.0031687
#3	.3202677	256.8416	14.42022	29.30603	.2274669	.0023868

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3060675	.3703162	6.544927	6.767930	3.651126	1.059956
Stddev	.1793924	.0023705	.027284	.027704	.010840	.004885
%RSD	58.61205	.6401385	.4168717	.4093473	.2968838	.4608859
#1	.0999986	.3681019	6.558936	6.744310	3.645368	1.064468
#2	.4273596	.3728169	6.562361	6.761054	3.644381	1.060631
#3	.3908444	.3700297	6.513484	6.798424	3.663630	1.054768

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-03 Acquired: 1/23/2025 19:51:22 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ00 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061536	7.230694	6.417317	.0177354	1.496738	.0298056
Stddev	.0002270	.012604	.011651	.0013462	.003185	.0009275
%RSD	3.689235	.1743174	.1815519	7.590586	.2128240	3.111776
#1	.0064024	7.222525	6.404817	.0186834	1.495168	.0300024
#2	.0061008	7.224346	6.427874	.0161945	1.500403	.0306188
#3	.0059576	7.245210	6.419259	.0183285	1.494642	.0287955

Elem	Sr4077
Units	ppm
Avg	.1828836
Stddev	.0005270
%RSD	.2881799
#1	.1826034
#2	.1834915
#3	.1825558

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3789.638	78449.66	10820.62	2700.108	3939.261
Stddev	8.137	351.52	32.20	16.396	4.869
%RSD	.2147152	.4480813	.2975635	.6072439	.1236033
#1	3780.334	78130.30	10786.38	2684.329	3935.683
#2	3795.423	78392.38	10825.21	2698.935	3944.806
#3	3793.157	78826.30	10850.28	2717.059	3937.294

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-04 Acquired: 1/23/2025 19:55:24 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0925100**	**-.000177**	**1.863151**	**.0372967**	**.0219468**	**57.37627**
Stddev	.0018828	.002781	.003291	.0043434	.0026858	.23954
%RSD	2.035215	1566.927	.1766361	11.64564	12.23781	.4174845
#1	.0940155	.002844	1.860459	.0345137	.0197998	57.09974
#2	.0931157	-.000746	1.866820	.0423016	.0249585	57.50933
#3	.0903990	-.002630	1.862174	.0350749	.0210822	57.51973

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **26.97537**	**.0060221**	**.0079914**	**50.29322**	**.1567318**	**.1437287**
Stddev	.04885	.0000765	.0000137	.25747	.0001543	.0005323
%RSD	.1810751	1.270546	.1712283	.5119296	.0984160	.3703769
#1	26.93006	.0060627	.0079974	49.99610	.1566535	.1431190
#2	26.96895	.0059338	.0079758	50.43286	.1569095	.1441014
#3	27.02711	.0060697	.0080011	50.45070	.1566325	.1439656

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1843971**	**183.3271**	**8.808207**	**19.63768**	**.1328917**	**.0026719**
Stddev	.0028113	.8628	.057533	.12506	.0006982	.0006415
%RSD	1.524617	.4706401	.6531694	.6368273	.5253673	24.01020
#1	.1835477	182.3356	8.743413	19.49654	.1332183	.0019438
#2	.1821083	183.9067	8.827904	19.68178	.1333667	.0031541
#3	.1875352	183.7392	8.853304	19.73471	.1320901	.0029178

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3276682**	**.2769173**	**1.768567**	**5.930972**	**4.054093**	**.7647730**
Stddev	.0909949	.0026474	.008790	.013898	.012323	.0057596
%RSD	27.77044	.9560214	.4970343	.2343259	.3039660	.7531144
#1	.3951683	.2739841	1.758575	5.946349	4.053768	.7583319
#2	.2241838	.2776384	1.772017	5.927262	4.066576	.7694279
#3	.3636525	.2791295	1.775109	5.919306	4.041937	.7665593

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-04 Acquired: 1/23/2025 19:55:24 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ01 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078315	8.015859	6.747610	.0124987	1.567868	.0304756
Stddev	.0003973	.017430	.028223	.0005048	.003339	.0011421
%RSD	5.073576	.2174463	.4182696	4.039097	.2129444	3.747649
#1	.0082861	8.017597	6.719192	.0119338	1.566990	.0291656
#2	.0076582	8.032354	6.748004	.0126568	1.565056	.0309989
#3	.0075503	7.997624	6.775634	.0129056	1.571558	.0312622

Elem	Sr4077
Units	ppm
Avg	.2379692
Stddev	.0018044
%RSD	.7582572
#1	.2359903
#2	.2383942
#3	.2395232

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3742.782	76504.51	10887.91	2643.886	4090.721
Stddev	7.768	199.98	42.85	.624	8.897
%RSD	.2075493	.2613939	.3935521	.0236194	.2175035
#1	3750.069	76597.93	10885.93	2643.648	4099.006
#2	3734.609	76640.68	10931.71	2644.595	4081.317
#3	3743.669	76274.92	10846.08	2643.416	4091.840

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-05 Acquired: 1/23/2025 19:59:29 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0340339**	**-.005452**	**.7493775**	**-.009421**	**.0142051**	**3.633566**
Stddev	.0035053	.004737	.0021801	.006110	.0020249	.039389
%RSD	10.29947	86.89250	.2909205	64.85077	14.25475	1.084032
#1	.0380252	-.010884	.7492445	-.013767	.0122841	3.610494
#2	.0326207	-.002176	.7516211	-.012061	.0140111	3.679047
#3	.0314558	-.003297	.7472670	-.002435	.0163200	3.611156

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **27.89084**	**.0009463**	**.0249460**	F **2161.790**	**.0637797**	**.0264978**
Stddev	.15229	.0000773	.0001466	9.854	.0004846	.0001002
%RSD	.5460231	8.167398	.5876426	.4558442	.7597607	.3782123
#1	27.87493	.0008578	.0249961	2171.093	.0632333	.0264641
#2	27.74713	.0010007	.0250610	2162.812	.0639485	.0264187
#3	28.05046	.0009804	.0247810	2151.464	.0641574	.0266105

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1585690**	**50.45330**	**1.835800**	F **1260.330**	**.0759947**	**-.001559**
Stddev	.0015077	.20429	.009304	4.300	.0011570	.000433
%RSD	.9508281	.4049082	.5067844	.3411564	1.522494	27.77209
#1	.1593061	50.47611	1.834015	1262.984	.0762432	-.001762
#2	.1568346	50.64523	1.845867	1255.369	.0747336	-.001062
#3	.1595665	50.23856	1.827519	1262.638	.0770073	-.001854

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.894241**	**.1139273**	**10.36071**	**-.315278**	**1.015575**	**.2539160**
Stddev	.196315	.0012721	.05569	.045298	.002143	.0004741
%RSD	21.95324	1.116616	.5375276	14.36773	.2110257	.1867092
#1	-1.07832	.1148747	10.40345	-.287881	1.013612	.2541138
#2	-.68764	.1144258	10.38095	-.290389	1.015251	.2542591
#3	-.91676	.1124814	10.29773	-.367564	1.017861	.2533750

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-05 Acquired: 1/23/2025 19:59:29 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ02 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067504	F 42.26097	1.391481	-.003635	.0373117	.0585169
Stddev	.0008070	.16986	.004585	.001469	.0006944	.0004283
%RSD	11.95478	.4019303	.3295180	40.40014	1.861062	.7318737
#1	.0076783	42.10938	1.386508	-.002288	.0375444	.0586534
#2	.0062117	42.22898	1.395542	-.003416	.0378599	.0588603
#3	.0063613	42.44455	1.392392	-.005201	.0365309	.0580370

Elem	Sr4077
Units	ppm
Avg	.9491188
Stddev	.0068258
%RSD	.7191726
#1	.9487933
#2	.9561015
#3	.9424615

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2718.302	56045.40	8833.474	1892.824	2936.652
Stddev	8.343	112.49	59.756	7.783	6.413
%RSD	.3069355	.2007062	.6764737	.4111765	.2183791
#1	2719.918	55921.30	8786.455	1883.878	2938.336
#2	2725.720	56074.26	8900.718	1898.036	2942.055
#3	2709.269	56140.65	8813.248	1896.558	2929.565

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-06 Acquired: 1/23/2025 20:03:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0907514	-.005506	1.335768	.0047669	.0323101	1.611631
Stddev	.0048799	.004352	.004335	.0050743	.0015253	.015741
%RSD	5.377260	79.03870	.3245234	106.4478	4.720709	.9766830
#1	.0882056	-.000523	1.331444	-.001044	.0336698	1.627508
#2	.0963778	-.008563	1.340113	.007023	.0306608	1.611354
#3	.0876708	-.007433	1.335747	.008322	.0325998	1.596031

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.074991	-.000213	.1015871	F 2176.193	.0296964	.0312504
Stddev	.043783	.000093	.0003757	8.641	.0003168	.0001188
%RSD	.5422004	43.50534	.3697930	.3970771	1.066925	.3800361
#1	8.071391	-.000170	.1012913	2167.371	.0293398	.0311149
#2	8.033120	-.000320	.1020097	2176.567	.0298039	.0313363
#3	8.120463	-.000150	.1014602	2184.641	.0299454	.0313001

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4556956	137.2566	1.638734	F 1238.457	.1794817	.0012511
Stddev	.0042390	.9571	.010833	10.277	.0007178	.0002138
%RSD	.9302170	.6973262	.6610717	.8298392	.3999107	17.08857
#1	.4528693	136.4168	1.628186	1226.600	.1789371	.0013500
#2	.4605697	138.2987	1.649831	1243.962	.1802951	.0013976
#3	.4536479	137.0543	1.638186	1244.810	.1792129	.0010058

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -1.15300	.0957970	F 56.69470	-.688848	1.080413	.6051799
Stddev	.14953	.0025472	.24935	.067205	.011522	.0044070
%RSD	12.96902	2.658899	.4398099	9.756071	1.066452	.7282129
#1	-1.19726	.0935645	56.42051	-.723572	1.076922	.6014694
#2	-.98633	.0952551	56.90788	-.611385	1.093277	.6100511
#3	-1.27540	.0985715	56.75571	-.731587	1.071041	.6040194

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-06 Acquired: 1/23/2025 20:03:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ03 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004723	F 148.5810	.9011072	-.002685	-.006884	.0542147
Stddev	.000548	.6168	.0061307	.000716	.000641	.0015361
%RSD	11.60543	.4151377	.6803549	26.68141	9.315463	2.833348
#1	-.005283	148.2682	.8959518	-.001964	-.007347	.0557521
#2	-.004188	149.2915	.9078863	-.003396	-.007154	.0542122
#3	-.004697	148.1832	.8994834	-.002694	-.006152	.0526799

Elem	Sr4077
Units	ppm
Avg	.8522270
Stddev	.0056604
%RSD	.6641845
#1	.8469217
#2	.8581857
#3	.8515735

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2684.103	55851.30	8774.919	1883.094	2902.816
Stddev	8.863	215.54	23.266	3.955	11.129
%RSD	.3301997	.3859137	.2651461	.2100493	.3834013
#1	2689.878	56059.63	8798.886	1886.814	2903.736
#2	2673.898	55629.21	8752.423	1883.529	2891.255
#3	2688.532	55865.07	8773.447	1878.939	2913.457

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-07 Acquired: 1/23/2025 20:08:10 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0972568**	**-.011628**	**14.38982**	**.0314577**	**.0258103**	**17.80596**
Stddev	.0010490	.002119	.02098	.0058359	.0018162	.07577
%RSD	1.078580	18.22140	.1458232	18.55162	7.036807	.4255148
#1	.0982095	-.009193	14.36634	.0358403	.0261096	17.74999
#2	.0974282	-.013057	14.39636	.0248333	.0274582	17.77570
#3	.0961326	-.012632	14.40675	.0336995	.0238630	17.89217

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **29.61750**	**.0047212**	**.1621331**	**679.3068**	**.1691429**	**.1529472**
Stddev	.39620	.0001611	.0002202	7.6600	.0003863	.0006995
%RSD	1.337729	3.412013	.1358133	1.127627	.2283858	.4573255
#1	29.72597	.0048834	.1618870	675.5158	.1695645	.1523407
#2	29.94816	.0045613	.1622007	674.2815	.1688059	.1537124
#3	29.17835	.0047189	.1623115	688.1231	.1690582	.1527884

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4402148**	**208.3028**	**13.07106**	**343.5736**	**.1661590**	**.0145745**
Stddev	.0018550	.3561	.01665	.3464	.0006591	.0003865
%RSD	.4213944	.1709527	.1273753	.1008172	.3966402	2.651830
#1	.4393162	208.0460	13.08219	343.3431	.1657072	.0143763
#2	.4423480	208.1532	13.05192	343.4058	.1669153	.0143273
#3	.4389803	208.7093	13.07907	343.9720	.1658546	.0150198

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.271186**	**.1983817**	**12.06706**	**1.414980**	**3.867621**	**.9020214**
Stddev	.368538	.0021128	.08776	.031486	.007955	.0027389
%RSD	135.8989	1.064997	.7272880	2.225224	.2056831	.3036451
#1	-.266183	.1962193	12.15720	1.431071	3.860344	.9006483
#2	.094826	.1984847	11.98188	1.378699	3.866405	.9002406
#3	-.642199	.2004410	12.06211	1.435169	3.876114	.9051753

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-07 Acquired: 1/23/2025 20:08:10 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038134	F 21.05208	4.605426	.0163363	.4965552	.0222255
Stddev	.0003184	.07099	.017736	.0018331	.0017165	.0002039
%RSD	8.349867	.3372340	.3851145	11.22108	.3456788	.9175814
#1	.0037067	21.01343	4.620589	.0163661	.4970825	.0220847
#2	.0041715	21.00879	4.609767	.0144886	.4979461	.0224593
#3	.0035621	21.13401	4.585922	.0181544	.4946369	.0221324

Elem	Sr4077
Units	ppm
Avg	.4090730
Stddev	.0007433
%RSD	.1817118
#1	.4089361
#2	.4084076
#3	.4098752

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3383.781	69311.02	10403.42	2363.094	3426.595
Stddev	4.511	212.51	58.88	12.298	5.162
%RSD	.1333207	.3066004	.5659317	.5204231	.1506369
#1	3381.889	69092.85	10359.65	2348.909	3427.064
#2	3380.523	69322.85	10380.26	2370.749	3421.215
#3	3388.930	69517.37	10470.36	2369.626	3431.507

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-08 Acquired: 1/23/2025 20:12:20 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1001432	-.010946	14.42086	.0317252	.0280081	17.77239
Stddev	.0005891	.003384	.04292	.0020061	.0023642	.08285
%RSD	.5882886	30.91807	.2976454	6.323518	8.441061	.4661844
#1	.0999533	-.014275	14.40361	.0334774	.0261980	17.70976
#2	.0996725	-.007509	14.38925	.0295369	.0306829	17.86634
#3	.1008039	-.011054	14.46973	.0321613	.0271433	17.74108

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 29.74140	.0044843	.1624785	679.7728	.1678353	.1523265
Stddev	.32036	.0000878	.0009924	5.3507	.0006450	.0006288
%RSD	1.077164	1.957544	.6107965	.7871253	.3842834	.4127811
#1	29.39452	.0045850	.1625928	676.6630	.1683937	.1525705
#2	29.80356	.0044241	.1614338	685.9511	.1671293	.1516123
#3	30.02614	.0044437	.1634088	676.7042	.1679829	.1527967

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4454751	208.2366	13.16625	344.0625	.1655777	.0147091
Stddev	.0076826	1.0961	.05176	1.9475	.0007796	.0004721
%RSD	1.724577	.5263944	.3931372	.5660445	.4708452	3.209218
#1	.4449453	207.3803	13.14709	342.8216	.1655636	.0142036
#2	.4534089	209.4720	13.22486	346.3071	.1648053	.0151384
#3	.4380712	207.8576	13.12680	343.0586	.1663643	.0147852

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.305631	.1966210	12.11853	1.453551	3.906112	.9030516
Stddev	.213106	.0029793	.04430	.063894	.023778	.0047291
%RSD	69.72659	1.515260	.3655813	4.395736	.6087282	.5236759
#1	-.073607	.1987127	12.09958	1.385741	3.898185	.8987576
#2	-.350666	.1979404	12.16915	1.512632	3.887310	.9081201
#3	-.492622	.1932098	12.08684	1.462278	3.932840	.9022770

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-08 Acquired: 1/23/2025 20:12:20 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041447	F 21.38726	4.599155	.0168682	.4921733	.0238438
Stddev	.0005951	.12147	.058337	.0006564	.0064045	.0005905
%RSD	14.35834	.5679476	1.268426	3.891369	1.301278	2.476662
#1	.0035365	21.34369	4.625694	.0169607	.4967670	.0244635
#2	.0047258	21.29360	4.639503	.0161705	.4948955	.0232875
#3	.0041718	21.52451	4.532267	.0174735	.4848573	.0237805

Elem	Sr4077
Units	ppm
Avg	.4104496
Stddev	.0021095
%RSD	.5139537
#1	.4089957
#2	.4128691
#3	.4094840

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3342.805	69212.83	10504.55	2361.562	3392.399
Stddev	5.816	118.39	119.65	2.527	4.397
%RSD	.1739838	.1710472	1.139014	.1069930	.1296168
#1	3339.618	69250.12	10416.21	2358.740	3390.358
#2	3349.518	69080.29	10456.72	2362.330	3397.445
#3	3339.279	69308.09	10640.71	2363.615	3389.392

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-07LX5 Acquired: 1/23/2025 20:16:31 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0161478**	**-.001133**	**2.894604**	**.0078624**	**.0050175**	**3.405316**	**5.978287**
Stddev	.0010335	.001549	.011594	.0009666	.0011180	.027375	.038678
%RSD	6.399979	136.6839	.4005267	12.29429	22.28258	.8038985	.6469802
#1	.0164623	-.002472	2.889799	.0088967	.0038648	3.427370	5.990144
#2	.0149937	-.001492	2.886186	.0077088	.0050904	3.374677	6.009648
#3	.0169876	.000564	2.907828	.0069818	.0060973	3.413902	5.935068

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010604**	**.0318178**	**137.7080**	**.0360977**	**.0300416**	**.0935460**	**42.98746**
Stddev	.0001085	.0002640	.6957	.0004252	.0002174	.0024298	.27895
%RSD	10.22846	.8297199	.5052091	1.177954	.7237941	2.597490	.6489006
#1	.0009528	.0317339	138.4805	.0357386	.0301884	.0907412	43.27344
#2	.0011698	.0316060	137.1308	.0359872	.0301445	.0950129	42.71613
#3	.0010587	.0321136	137.5127	.0365672	.0297918	.0948838	42.97281

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.668921**	**67.56186**	**.0322354**	**.0023799**	**-.114432**	**.0446966**	**2.435561**
Stddev	.010671	.33102	.0002378	.0001280	.223703	.0012301	.003458
%RSD	.3998210	.4899513	.7378097	5.377909	195.4895	2.752062	.1419898
#1	2.681007	67.89909	.0321228	.0023897	-.365109	.0435080	2.438686
#2	2.664956	67.23742	.0320747	.0025028	.064890	.0459643	2.431846
#3	2.660801	67.54907	.0325086	.0022474	-.043079	.0446176	2.436150

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2106589**	**.7185282**	**.1850523**	**.0003729**	**3.877977**	**.9711891**	**.0005795**
Stddev	.0126228	.0074576	.0019041	.0001813	.024322	.0116364	.0001666
%RSD	5.992049	1.037894	1.028942	48.62398	.6271923	1.198155	28.74243
#1	.2127470	.7133186	.1871521	.0005090	3.868641	.9585903	.0004965
#2	.1971223	.7151948	.1834379	.0001671	3.859706	.9815329	.0007713
#3	.2221075	.7270710	.1845669	.0004426	3.905584	.9734441	.0004708

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-07LX5 Acquired: 1/23/2025 20:16:31 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1061541	.0016462	.0798944
Stddev	.0003888	.0015082	.0004704
%RSD	.3663074	91.62101	.5887929
#1	.1063869	.0026861	.0804369
#2	.1057052	-.000084	.0796477
#3	.1063702	.002336	.0795986

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3457.253	70236.10	9863.702	2431.821	3960.271
Stddev	10.661	373.14	28.567	8.982	11.041
%RSD	.3083700	.5312669	.2896141	.3693571	.2787815
#1	3456.276	69834.95	9892.334	2422.812	3960.887
#2	3468.370	70572.85	9835.201	2440.776	3970.991
#3	3447.115	70300.51	9863.571	2431.874	3948.936

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-09 Acquired: 1/23/2025 20:20:40 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1686109**	**.0907788**	**14.09352**	**.1980509**	**.1991913**	**21.03731**
Stddev	.0021178	.0014617	.03194	.0005084	.0007265	.12930
%RSD	1.256029	1.610205	.2266637	.2566925	.3647506	.6146379
#1	.1693600	.0899070	14.07488	.1975642	.1992004	20.93090
#2	.1662204	.0899631	14.07528	.1980101	.1984603	21.18122
#3	.1702524	.0924664	14.13041	.1985785	.1999133	20.99981

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **32.89692**	**.0979439**	**.2600971**	**662.0427**	**.5676589**	**1.163962**
Stddev	.17549	.0007345	.0007000	1.5679	.0010427	.004180
%RSD	.5334664	.7499277	.2691262	.2368335	.1836832	.3591265
#1	32.70940	.0985117	.2598481	662.6456	.5671235	1.161208
#2	32.92415	.0971144	.2595557	663.2197	.5688606	1.161906
#3	33.05721	.0982056	.2608876	660.2628	.5669927	1.168772

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9134629**	**205.3237**	**13.74402**	**335.9941**	**1.170496**	**.0885693**
Stddev	.0019669	1.5387	.12247	2.3872	.002628	.0002278
%RSD	.2153273	.7493858	.8910998	.7104788	.2245072	.2571801
#1	.9113508	204.2156	13.63478	334.5904	1.168236	.0886405
#2	.9137958	207.0805	13.87642	338.7504	1.169874	.0887530
#3	.9152422	204.6751	13.72087	334.6415	1.173380	.0883144

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.391079**	**1.146164**	**12.85102**	**1.406509**	**3.748494**	**.8888081**
Stddev	.501123	.003783	.08080	.022666	.009892	.0078739
%RSD	128.1385	.3300708	.6287137	1.611534	.2638967	.8858940
#1	-.828585	1.146786	12.77595	1.392605	3.742299	.8830986
#2	.155646	1.142109	12.93653	1.394258	3.743280	.8977906
#3	-.500298	1.149598	12.84058	1.432665	3.759902	.8855350

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-09 Acquired: 1/23/2025 20:20:40 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ04S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030771	F 20.42874	4.721200	.0140428	.4917846	.0225282
Stddev	.0004587	.06176	.033614	.0010501	.0024184	.0020193
%RSD	14.90794	.3023141	.7119766	7.477800	.4917550	8.963333
#1	.0031561	20.36489	4.682404	.0152054	.4941012	.0234500
#2	.0034911	20.43316	4.741624	.0137598	.4892759	.0239221
#3	.0025839	20.48817	4.739571	.0131632	.4919768	.0202125

Elem	Sr4077
Units	ppm
Avg	.4009258
Stddev	.0035709
%RSD	.8906735
#1	.3977421
#2	.4047869
#3	.4002484

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3403.261	70191.60	10429.21	2375.053	3459.095
Stddev	14.249	58.54	72.31	3.292	12.174
%RSD	.4186754	.0833978	.6933831	.1386112	.3519519
#1	3410.016	70258.68	10374.38	2378.600	3465.411
#2	3412.876	70165.28	10511.16	2374.462	3466.814
#3	3386.891	70150.84	10402.09	2372.096	3445.061

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-10 Acquired: 1/23/2025 20:24:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1095412**	**-.004594**	**2.180886**	**.0426431**	**.0258069**	**61.34970**
Stddev	.0027777	.003867	.004590	.0032160	.0019039	.19725
%RSD	2.535776	84.16761	.2104470	7.541659	7.377550	.3215193
#1	.1072187	-.009052	2.176594	.0424169	.0237966	61.14451
#2	.1087867	-.002583	2.185725	.0395462	.0275827	61.53791
#3	.1126182	-.002148	2.180339	.0459663	.0260414	61.36668

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **35.81878**	**.0076380**	**.0075722**	**34.41780**	**.2396190**	**.2110536**
Stddev	.22142	.0000364	.0000761	.13758	.0003593	.0001530
%RSD	.6181812	.4768351	1.004883	.3997484	.1499681	.0724746
#1	36.03376	.0076348	.0076206	34.32478	.2392791	.2108878
#2	35.59143	.0076760	.0074845	34.57585	.2399951	.2111891
#3	35.83116	.0076033	.0076115	34.35278	.2395829	.2110841

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1169609**	**209.5281**	**15.84619**	**14.44737**	**.1239129**	**.0050173**
Stddev	.0001535	.8122	.03932	.08128	.0004302	.0004106
%RSD	.1312304	.3876497	.2481268	.5626241	.3472140	8.182853
#1	.1170140	208.8297	15.81189	14.40594	.1240709	.0051503
#2	.1167879	210.4194	15.88910	14.54102	.1242418	.0053448
#3	.1170807	209.3351	15.83758	14.39514	.1234260	.0045567

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1187942**	**.3920942**	**1.826153**	**5.062116**	**4.075882**	**.8756507**
Stddev	.3028893	.0028938	.009471	.027908	.011289	.0036743
%RSD	254.9699	.7380265	.5186418	.5513040	.2769674	.4196044
#1	.0112918	.3904945	1.835974	5.031260	4.082978	.8729512
#2	.4607715	.3903534	1.825410	5.085593	4.081804	.8798350
#3	-.115681	.3954346	1.817075	5.069493	4.062864	.8741658

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-10 Acquired: 1/23/2025 20:24:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ05 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082401	9.793739	7.396340	.0125817	1.396038	.0292734
Stddev	.0002644	.028020	.021287	.0004803	.005965	.0025177
%RSD	3.208190	.2861031	.2878001	3.817486	.4272504	8.600509
#1	.0085190	9.816931	7.419979	.0130905	1.402793	.0265230
#2	.0079932	9.762605	7.378688	.0125182	1.391499	.0314642
#3	.0082080	9.801681	7.390352	.0121362	1.393821	.0298328

Elem	Sr4077
Units	ppm
Avg	.3652528
Stddev	.0012290
%RSD	.3364911
#1	.3640105
#2	.3664682
#3	.3652796

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3702.679	75126.21	10775.14	2601.247	4091.113
Stddev	8.110	123.49	49.93	12.818	11.152
%RSD	.2190372	.1643813	.4633878	.4927659	.2725967
#1	3711.279	75094.38	10717.60	2590.289	4102.804
#2	3701.591	75021.74	10800.73	2598.110	4089.944
#3	3695.168	75262.50	10807.09	2615.343	4080.591

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-11 Acquired: 1/23/2025 20:28:53 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0915262**	**.0011560**	**1.305650**	**.0399641**	**.1140611**	**66.12911**
Stddev	.0024436	.0025226	.002101	.0015925	.0021948	.20899
%RSD	2.669840	218.2227	.1609009	3.984931	1.924253	.3160296
#1	.0942377	.0035999	1.307389	.0382152	.1121991	66.31759
#2	.0908464	-.001439	1.303316	.0413307	.1135030	65.90436
#3	.0894945	.001307	1.306244	.0403463	.1164811	66.16536

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **26.05765**	**.0053956**	**.0049619**	**15.03436**	**.2367661**	**.1142564**
Stddev	.32873	.0002374	.0000710	.05890	.0007262	.0004531
%RSD	1.261552	4.399789	1.431202	.3917459	.3067274	.3965730
#1	26.22403	.0053669	.0048837	15.07149	.2359415	.1137389
#2	26.26993	.0056461	.0050223	14.96646	.2373105	.1144480
#3	25.67899	.0051740	.0049798	15.06515	.2370463	.1145822

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0958001**	**182.2342**	**8.200732**	**12.29359**	**.0928403**	**.0027142**
Stddev	.0015352	.4912	.042007	.03173	.0005317	.0003296
%RSD	1.602474	.2695368	.5122313	.2581283	.5726792	12.14187
#1	.0968279	182.5054	8.200164	12.26268	.0933987	.0030852
#2	.0965371	181.6672	8.159011	12.29199	.0923401	.0024553
#3	.0940354	182.5300	8.243019	12.32608	.0927821	.0026022

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2601766**	**.3280192**	**1.034811**	**3.905261**	**2.536639**	**.7521501**
Stddev	.2201863	.0024940	.005572	.060524	.001887	.0035787
%RSD	84.62956	.7603304	.5384605	1.549810	.0744061	.4757956
#1	.3819815	.3305337	1.036802	3.873083	2.534466	.7551548
#2	.0060006	.3255462	1.028517	3.867622	2.537874	.7481909
#3	.3925478	.3279777	1.039114	3.975077	2.537577	.7531047

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-11 Acquired: 1/23/2025 20:28:53 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ06 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082156	6.530540	5.647970	.0090912	1.286012	.0319547
Stddev	.0004158	.002032	.033899	.0001740	.004990	.0014607
%RSD	5.061112	.0311083	.6001965	1.914284	.3880485	4.571211
#1	.0077355	6.532175	5.624455	.0092482	1.287521	.0335959
#2	.0084486	6.528266	5.632628	.0089041	1.280441	.0314709
#3	.0084626	6.531180	5.686828	.0091215	1.290074	.0307973

Elem	Sr4077
Units	ppm
Avg	.2378297
Stddev	.0006309
%RSD	.2652644
#1	.2380584
#2	.2371163
#3	.2383142

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3749.370	75490.14	10596.64	2611.982	4170.251
Stddev	2.896	219.01	19.03	7.331	6.319
%RSD	.0772427	.2901198	.1795750	.2806512	.1515163
#1	3748.001	75397.04	10608.91	2605.912	4163.014
#2	3752.697	75740.32	10606.28	2620.126	4173.072
#3	3747.412	75333.06	10574.72	2609.906	4174.668

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-12 Acquired: 1/23/2025 20:32:58 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1147220	-.000816	1.114032	.0496207	.0254283	103.0296	17.67528
Stddev	.0022064	.001576	.001539	.0025705	.0023831	.6625	.23529
%RSD	1.923235	193.0760	.1381594	5.180227	9.371847	.6429866	1.331191
#1	.1148871	.000610	1.114735	.0479046	.0261467	102.3705	17.44942
#2	.1124378	-.000550	1.115093	.0525760	.0273696	103.6954	17.91899
#3	.1168412	-.002508	1.112266	.0483816	.0227687	103.0228	17.65744

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0071621	.0051642	14.05798	.2436898	.2186586	.1016938	238.2191
Stddev	.0001233	.0000282	.11148	.0007526	.0004467	.0005156	1.5273
%RSD	1.722295	.5467757	.7930190	.3088509	.2042972	.5070388	.6411531
#1	.0072297	.0051876	13.92999	.2445266	.2190049	.1022151	236.6494
#2	.0070198	.0051328	14.13388	.2430682	.2188165	.1016822	239.7002
#3	.0072370	.0051724	14.11006	.2434745	.2181543	.1011840	238.3076

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.83537	15.48154	.1225043	.0033837	.5091879	.4184217	.5669629
Stddev	.10086	.12492	.0006912	.0005124	.3041794	.0018922	.0059130
%RSD	.8522025	.8068818	.5642278	15.14261	59.73814	.4522333	1.042921
#1	11.71914	15.33806	.1233023	.0031148	.1579670	.4165822	.5603285
#2	11.88709	15.54049	.1221120	.0039746	.6876301	.4183204	.5688834
#3	11.89988	15.56607	.1220984	.0030617	.6819665	.4203626	.5716769

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.797878	2.150689	.9797787	.0098788	4.233453	6.102404	.0113241
Stddev	.047810	.003433	.0084008	.0001653	.012677	.020240	.0012064
%RSD	.9964728	.1596297	.8574161	1.672761	.2994482	.3316767	10.65351
#1	4.771716	2.147708	.9710909	.0097591	4.219215	6.093764	.0113162
#2	4.853059	2.154443	.9878595	.0100673	4.243515	6.087918	.0101216
#3	4.768858	2.149917	.9803857	.0098099	4.237628	6.125530	.0125344

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-12 Acquired: 1/23/2025 20:32:58 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ07 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.428806	.0536660	.1660307
Stddev	.001792	.0008966	.0011876
%RSD	.1254327	1.670705	.7152849
#1	1.427068	.0528082	.1646880
#2	1.428703	.0535927	.1669433
#3	1.430648	.0545969	.1664608

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3821.000	78133.68	10852.62	2703.371	4098.537
Stddev	6.974	162.78	43.02	8.381	7.171
%RSD	.1825266	.2083408	.3964136	.3100116	.1749755
#1	3822.160	78301.04	10806.33	2699.119	4095.348
#2	3813.519	77975.89	10891.38	2697.969	4093.513
#3	3827.322	78124.13	10860.15	2713.026	4106.750

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-13 Acquired: 1/23/2025 20:37:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1037183**	**-.002250**	**1.389233**	**.0388748**	**.0233449**	**69.83049**
Stddev	.0021577	.002046	.003820	.0018287	.0010400	.48364
%RSD	2.080327	90.91689	.2749759	4.703996	4.454976	.6925906
#1	.1058898	-.002329	1.386322	.0408712	.0223957	69.28641
#2	.1015747	-.000166	1.387819	.0372809	.0244566	70.21158
#3	.1036904	-.004256	1.393559	.0384724	.0231825	69.99348

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **21.23724**	**.0082036**	**.0072951**	**31.52060**	**.1976592**	**.2813749**
Stddev	.19762	.0001318	.0000138	.20364	.0008471	.0006096
%RSD	.9305297	1.606277	.1895309	.6460695	.4285426	.2166512
#1	21.31850	.0083490	.0072850	31.28947	.1975491	.2808998
#2	21.38127	.0081697	.0072895	31.67364	.1968727	.2811626
#3	21.01195	.0080921	.0073108	31.59869	.1985560	.2820622

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1635773**	**198.4985**	**19.95830**	**14.86178**	**.1451491**	**.0049168**
Stddev	.0009782	1.3716	.11705	.06460	.0004144	.0002531
%RSD	.5980024	.6909672	.5864717	.4346653	.2855035	5.148218
#1	.1635761	196.9377	19.82717	14.78893	.1448409	.0047594
#2	.1645561	199.5115	20.05223	14.91208	.1449861	.0052088
#3	.1625997	199.0462	19.99549	14.88434	.1456202	.0047822

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2912600**	**.3744877**	**1.120498**	**5.390171**	**4.126324**	**.8323202**
Stddev	.2804925	.0031819	.006560	.052497	.014518	.0064265
%RSD	96.30314	.8496624	.5854496	.9739345	.3518461	.7721213
#1	.4743923	.3779406	1.117369	5.331833	4.109675	.8249418
#2	.4310442	.3738485	1.128036	5.433604	4.136344	.8366951
#3	-.031656	.3716739	1.116088	5.405074	4.132955	.8353236

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-13 Acquired: 1/23/2025 20:37:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ08 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0102878**	**7.151523**	**4.800964**	**.0099728**	**1.405023**	**.0373886**
Stddev	.0001743	.028286	.037567	.0012285	.005753	.0007343
%RSD	1.694584	.3955236	.7824910	12.31873	.4094449	1.964024
#1	.0104714	7.123386	4.844304	.0109611	1.411533	.0368078
#2	.0101246	7.151228	4.780866	.0103599	1.402911	.0382140
#3	.0102673	7.179956	4.777721	.0085973	1.400625	.0371439

Elem	Sr4077
Units	ppm
Avg	**.2696867**
Stddev	.0021341
%RSD	.7913290
#1	.2675321
#2	.2717997
#3	.2697284

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3802.195**	**77044.24**	**10929.40**	**2663.434**	**4102.187**
Stddev	2.175	145.98	103.52	9.557	5.893
%RSD	.0572066	.1894778	.9471652	.3588361	.1436550
#1	3803.185	77144.04	10818.46	2654.564	4104.578
#2	3803.698	77111.99	11023.41	2662.183	4106.509
#3	3799.700	76876.69	10946.34	2673.556	4095.474

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-14 Acquired: 1/23/2025 20:41:05 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0872536	-.001753	.8985781	.0354160	.0194116	60.36510	13.78464
Stddev	.0028575	.001470	.0050601	.0024636	.0017681	1.01312	.18590
%RSD	3.274906	83.84038	.5631200	6.956225	9.108295	1.678319	1.348604
#1	.0891691	-.001409	.8959695	.0375164	.0202174	61.53391	13.98986
#2	.0839692	-.003364	.8953546	.0327043	.0206331	59.82319	13.62751
#3	.0886225	-.000486	.9044102	.0360273	.0173841	59.73818	13.73655

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067363	.0047309	13.71941	.1634668	.1985276	.0833148	167.1239
Stddev	.0002267	.0000577	.23268	.0040908	.0002821	.0033020	2.9455
%RSD	3.365902	1.219833	1.696008	2.502532	.1420752	3.963328	1.762440
#1	.0068438	.0046647	13.98794	.1681897	.1985134	.0803110	170.5240
#2	.0064758	.0047708	13.59285	.1610345	.1982529	.0827830	165.3514
#3	.0068892	.0047573	13.57743	.1611761	.1988165	.0868505	165.4962

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.55166	10.71335	.0978907	.0028537	-.030777	.3033045	.6374359
Stddev	.24021	.18246	.0003656	.0006480	.233404	.0048952	.0128436
%RSD	1.772529	1.703135	.3734442	22.70555	758.3746	1.613956	2.014891
#1	13.82899	10.92387	.0975577	.0021372	.206439	.2997850	.6522063
#2	13.40885	10.60094	.0982819	.0030254	-.038597	.3012337	.6312065
#3	13.41715	10.61522	.0978325	.0033985	-.260173	.3088947	.6288950

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.109299	2.420751	.6921928	.0069918	3.689679	5.309083	.0097239
Stddev	.138459	.008833	.0125662	.0002600	.007717	.054832	.0000505
%RSD	3.369413	.3648686	1.815414	3.718990	.2091469	1.032789	.5194833
#1	4.269042	2.415950	.7067028	.0072550	3.688901	5.301358	.0096966
#2	4.023720	2.415359	.6848891	.0069854	3.682380	5.258523	.0097822
#3	4.035136	2.430944	.6849864	.0067351	3.697755	5.367367	.0096930

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-14 Acquired: 1/23/2025 20:41:05 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ09 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.331411	.0343979	.1603386
Stddev	.020766	.0018345	.0026104
%RSD	1.559720	5.333150	1.628042
#1	1.320409	.0363807	.1633446
#2	1.318460	.0340519	.1590274
#3	1.355363	.0327610	.1586436

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3647.478	73450.05	10483.61	2572.774	4065.510
Stddev	7.617	1435.91	123.20	44.708	8.657
%RSD	.2088312	1.954952	1.175198	1.737726	.2129456
#1	3648.766	71795.28	10504.15	2521.198	4062.164
#2	3654.369	74367.67	10595.25	2600.496	4075.341
#3	3639.299	74187.20	10351.43	2596.628	4059.025

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-15 Acquired: 1/23/2025 20:45:10 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1130202**	**-.003647**	**1.394574**	**.0446107**	**.0218471**	**67.46044**	**15.96843**
Stddev	.0016825	.001705	.013441	.0030396	.0020199	.02786	.11326
%RSD	1.488635	46.75025	.9638014	6.813588	9.245538	.0413038	.7092797
#1	.1130990	-.005077	1.405561	.0478408	.0229794	67.43250	16.08687
#2	.1112997	-.004106	1.379587	.0418066	.0230467	67.46059	15.86118
#3	.1146618	-.001760	1.398574	.0441846	.0195150	67.48822	15.95723

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0090420**	**.0064487**	**16.85548**	**.1912642**	**.3468009**	**.0778369**	**201.1130**
Stddev	.0000697	.0001242	.00961	.0004616	.0039502	.0026167	.1353
%RSD	.7706513	1.926400	.0569955	.2413349	1.139029	3.361746	.0672585
#1	.0091220	.0065835	16.84604	.1915736	.3495773	.0784338	200.9853
#2	.0089949	.0063388	16.86524	.1914853	.3422786	.0749733	201.2547
#3	.0090090	.0064237	16.85514	.1907336	.3485468	.0801035	201.0988

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.69568**	**11.07363**	**.1225181**	**.0052466**	**-.213321**	**.3944641**	**.7075987**
Stddev	.18095	.02888	.0010675	.0000408	.396368	.0026949	.0050987
%RSD	.7636529	.2607913	.8713235	.7776626	185.8083	.6831734	.7205599
#1	23.90257	11.05069	.1232733	.0052485	-.028954	.3945055	.7022757
#2	23.56691	11.06414	.1212968	.0052864	.057282	.3917488	.7124387
#3	23.61756	11.10606	.1229843	.0052048	-.668291	.3971380	.7080817

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.170038**	**3.091259**	**.8307225**	**.0093572**	**3.989980**	**5.396151**	**.0104443**
Stddev	.063420	.029005	.0009007	.0001683	.041851	.003957	.0012677
%RSD	1.226674	.9382941	.1084241	1.798930	1.048908	.0733229	12.13790
#1	5.107071	3.111197	.8309836	.0095073	4.010800	5.392645	.0118699
#2	5.169143	3.057984	.8314638	.0091752	3.941802	5.400441	.0094438
#3	5.233900	3.104595	.8297201	.0093891	4.017338	5.395368	.0100192

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-15 Acquired: 1/23/2025 20:45:10 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ10 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.379929	.0359582	.1784996
Stddev	.002901	.0012905	.0004349
%RSD	.2102095	3.588917	.2436266
#1	1.376873	.0352201	.1781072
#2	1.380271	.0374483	.1789671
#3	1.382644	.0352061	.1784245

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3799.606	76378.79	10782.35	2670.887	4136.525
Stddev	33.016	173.59	24.44	3.366	40.911
%RSD	.8689205	.2272732	.2266527	.1260116	.9890068
#1	3774.764	76193.43	10754.14	2667.877	4104.554
#2	3837.070	76405.41	10796.60	2670.264	4182.628
#3	3786.983	76537.54	10796.33	2674.521	4122.392

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-16 Acquired: 1/23/2025 20:49:23 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ11 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0790494	-.001739	1.399880	.0309618	.0188075	50.33642
Stddev	.0026372	.000554	.004066	.0012229	.0003423	.32847
%RSD	3.336147	31.88791	.2904858	3.949758	1.820243	.6525398
#1	.0773678	-.002376	1.395686	.0298686	.0191873	50.60421
#2	.0776916	-.001474	1.400147	.0307344	.0185226	49.96992
#3	.0820889	-.001366	1.403806	.0322825	.0187127	50.43512

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 26.63762	.0076186	.0061105	24.74489	.1338539	.2381390
Stddev	.20839	.0001138	.0000440	.10372	.0005193	.0011448
%RSD	.7822970	1.493628	.7207548	.4191716	.3879488	.4807262
#1	26.52802	.0077450	.0060835	24.82727	.1344481	.2372389
#2	26.50690	.0075866	.0061613	24.62841	.1334872	.2377507
#3	26.87793	.0075242	.0060867	24.77898	.1336264	.2394274

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1645602	142.6141	17.34000	10.08087	.0991270	.0036072
Stddev	.0021639	.7666	.07198	.06583	.0011396	.0003056
%RSD	1.314949	.5375067	.4150848	.6530193	1.149634	8.472747
#1	.1657804	143.2952	17.40352	10.12148	.0978389	.0036884
#2	.1658385	141.7840	17.26183	10.00492	.1000041	.0032692
#3	.1620618	142.7631	17.35466	10.11621	.0995380	.0038641

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.381476	.2629852	.9647128	4.301954	3.549711	.5964314
Stddev	.167965	.0007387	.0093099	.051677	.011762	.0035904
%RSD	44.03042	.2808762	.9650450	1.201246	.3313573	.6019871
#1	-.388835	.2631907	.9725036	4.349790	3.539056	.5993246
#2	-.209952	.2621655	.9544024	4.308929	3.547745	.5924131
#3	-.545641	.2635993	.9672324	4.247144	3.562333	.5975563

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-16 Acquired: 1/23/2025 20:49:23 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ11 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065274	7.051748	5.661507	.0080671	1.231154	.0226890
Stddev	.0002363	.015112	.011022	.0011795	.000431	.0007464
%RSD	3.619937	.2142962	.1946890	14.62128	.0349829	3.289660
#1	.0062596	7.038023	5.650773	.0073989	1.231367	.0234947
#2	.0067068	7.049278	5.672797	.0094290	1.231436	.0220210
#3	.0066157	7.067942	5.660953	.0073734	1.230658	.0225515

Elem	Sr4077
Units	ppm
Avg	.2691715
Stddev	.0012765
%RSD	.4742178
#1	.2700374
#2	.2677056
#3	.2697716

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3723.062	75741.54	10712.35	2634.401	4125.346
Stddev	3.207	319.94	37.14	19.897	7.942
%RSD	.0861375	.4224086	.3466941	.7552732	.1925260
#1	3723.063	75423.56	10703.88	2611.585	4133.251
#2	3726.268	76063.40	10680.18	2643.470	4125.420
#3	3719.854	75737.67	10753.00	2648.148	4117.367

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-17 Acquired: 1/23/2025 20:53:27 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ12 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0438381	-.012764	1.044920	.0087921	.0201733	28.02002
Stddev	.0029112	.000932	.005592	.0038018	.0020172	.15874
%RSD	6.640807	7.304478	.5351602	43.24125	9.999182	.5665171
#1	.0456370	-.013304	1.047748	.0127703	.0181799	28.06634
#2	.0404794	-.013302	1.038478	.0084106	.0201264	27.84327
#3	.0453979	-.011688	1.048532	.0051954	.0222134	28.15044

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 32.56722	.0042278	.0081958	F 1843.384	.1057459	.0497290
Stddev	.07935	.0001887	.0002168	19.775	.0003406	.0002027
%RSD	.2436538	4.462209	2.645317	1.072779	.3221132	.4076472
#1	32.63289	.0040165	.0083675	1847.658	.1060296	.0495145
#2	32.58973	.0043795	.0082678	1821.821	.1058400	.0499174
#3	32.47905	.0042873	.0079522	1860.673	.1053681	.0497551

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.460968	132.2506	15.32458	F 974.7529	.0616475	.0012105
Stddev	.010027	.4893	.05301	2.8544	.0004260	.0000752
%RSD	.4074525	.3699730	.3459000	.2928296	.6910511	6.214732
#1	2.452099	132.4039	15.32331	976.3631	.0616635	.0012973
#2	2.471849	131.7030	15.27222	971.4573	.0612137	.0011676
#3	2.458957	132.6449	15.37822	976.4384	.0620652	.0011665

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -2.38008	.1457970	1.658159	2.526954	3.732317	.5859953
Stddev	.35564	.0027056	.010231	.098015	.009453	.0028591
%RSD	14.94234	1.855720	.6169841	3.878765	.2532756	.4878999
#1	-2.00265	.1427028	1.667573	2.611736	3.721478	.5867445
#2	-2.42866	.1477180	1.647272	2.419633	3.736617	.5828363
#3	-2.70894	.1469701	1.659633	2.549493	3.738855	.5884053

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-17 Acquired: 1/23/2025 20:53:27 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ12 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020343	F 12.50721	5.476531	.0016728	.5709139	.0563198
Stddev	.0006914	.01850	.025835	.0014160	.0016946	.0015688
%RSD	33.98424	.1478900	.4717486	84.64636	.2968263	2.785565
#1	.0023845	12.52197	5.466513	.0007530	.5718908	.0558069
#2	.0024806	12.48646	5.457205	.0009620	.5718937	.0550716
#3	.0012380	12.51318	5.505875	.0033033	.5689571	.0580809

Elem	Sr4077
Units	ppm
Avg	.7872077
Stddev	.0029982
%RSD	.3808598
#1	.7879666
#2	.7839030
#3	.7897535

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2888.156	60669.10	9477.201	2047.442	2999.741
Stddev	8.110	68.55	28.784	13.644	5.424
%RSD	.2808118	.1129946	.3037195	.6663787	.1808121
#1	2897.476	60593.51	9475.670	2032.471	3004.729
#2	2884.289	60686.55	9449.212	2050.676	3000.528
#3	2882.703	60727.25	9506.720	2059.178	2993.967

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV006 Acquired: 1/23/2025 20:57:40 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV006 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.716502**	**4.668735**	**24.15822**	**4.661500**	**4.746112**	**387.5684**
Stddev	.015317	.079410	.03907	.006507	.005810	3.8812
%RSD	.3247608	1.700897	.1617406	.1395984	.1224108	1.001411
#1	4.703765	4.600058	24.13669	4.667044	4.740506	386.1560
#2	4.712243	4.650457	24.13465	4.663121	4.745725	384.5911
#3	4.733498	4.755691	24.20332	4.654335	4.752106	391.9579

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.805232**	**.4995486**	**2.460664**	**391.3835**	**15.62681**	**2.441932**
Stddev	.063532	.0048870	.009274	1.5854	.01443	.002498
%RSD	.6479353	.9782832	.3769017	.4050844	.0923653	.1022862
#1	9.778710	.4968533	2.455653	389.5681	15.64344	2.440337
#2	9.759258	.4966028	2.454974	392.0866	15.61753	2.440648
#3	9.877727	.5051898	2.471366	392.4958	15.61945	2.444811

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.39697**	**400.9623**	**14.64642**	**394.6404**	**2.440423**	**1.273390**
Stddev	.14201	3.2212	.12856	2.7907	.006070	.004120
%RSD	.9863979	.8033786	.8777610	.7071469	.2487474	.3235839
#1	14.23300	401.1316	14.59070	394.8428	2.435935	1.277359
#2	14.47755	404.0956	14.79344	397.3244	2.438003	1.273677
#3	14.48037	397.6598	14.55512	391.7540	2.447330	1.269133

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**378.8372**	**2.453668**	**14.94040**	**148.0906**	**4.993533**	F **5.911756**
Stddev	3.3847	.016271	.10735	1.3494	.012801	.026772
%RSD	.8934344	.6631393	.7185300	.9112219	.2563436	.4528536
#1	374.9456	2.435175	14.94362	147.8445	4.981480	5.893006
#2	381.0955	2.460041	15.04610	149.5462	4.992150	5.899847
#3	380.4704	2.465788	14.83147	146.8812	5.006969	5.942416

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV006 Acquired: 1/23/2025 20:57:40 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV006 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.752229**	**4.863733**	**4.861128**	**4.972133**	**4.842786**	**4.772781**
Stddev	.011029	.021395	.044859	.017900	.038415	.049920
%RSD	.2320904	.4398976	.9228028	.3600042	.7932444	1.045922
#1	4.751704	4.846473	4.812128	4.964178	4.798880	4.751236
#2	4.741472	4.857055	4.871081	4.959590	4.859272	4.829855
#3	4.763512	4.887671	4.900174	4.992632	4.870207	4.737252

Elem	Sr4077
Units	ppm
Avg	**4.984186**
Stddev	.035833
%RSD	.7189302
#1	4.942930
#2	5.002087
#3	5.007543

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2873.702**	**60293.45**	**9158.035**	**2090.786**	**3275.003**
Stddev	4.649	170.26	76.482	10.080	2.322
%RSD	.1617728	.2823828	.8351388	.4821071	.0709068
#1	2868.360	60199.50	9204.627	2079.844	3277.194
#2	2875.911	60190.86	9199.711	2092.820	3272.569
#3	2876.834	60489.98	9069.766	2099.694	3275.246

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB006 Acquired: 1/23/2025 21:01:58 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB006 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000712**	**.0007980**	**-.001108**	**.0011538**	**.0002877**	**-.000828**	**-.000050**
Stddev	.001617	.0017107	.000851	.0010283	.0013489	.008788	.001185
%RSD	227.0531	214.3604	76.79845	89.12108	468.8906	1061.197	2382.395
#1	.001151	-.001159	-.001148	.0009327	-.001198	-.007937	.000392
#2	-.001752	.001547	-.000238	.0022746	.000627	.008998	-.001392
#3	-.001536	.002007	-.001938	.0002541	.001434	-.003545	.000851

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000259**	**.0000222**	**.0138185**	**.0006388**	**-.000019**	**.0011263**	**.0100524**
Stddev	.0000476	.0001066	.0065898	.0002486	.000322	.0010363	.0041897
%RSD	184.1587	480.0713	47.68804	38.92190	1692.996	92.01348	41.67914
#1	.0000475	.0001097	.0063528	.0006792	-.000032	.0012051	.0142746
#2	-.000029	.0000535	.0162775	.0008648	-.000334	.0000528	.0099866
#3	.000059	-.000097	.0188252	.0003725	.000309	.0021209	.0058959

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007198**	**.0216797**	**.0001129**	**-.000264**	**.0488049**	**.0013678**	**-.000341**
Stddev	.0004204	.0027901	.0003240	.000339	.1966189	.0007014	.001593
%RSD	58.40212	12.86975	287.0308	128.4876	402.8672	51.28152	467.2631
#1	.0008664	.0201585	-.000189	-.000644	.0010278	.0011705	-.000731
#2	.0010473	.0248998	.000072	.000007	.2649095	.0007862	.001411
#3	.0002458	.0199808	.000455	-.000154	-.119523	.0021468	-.001703

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.167819**	**.0039669**	**.0034615**	**.0003264**	**.0007587**	**.0064721**	**-.000144**
Stddev	.040319	.0007814	.0004759	.0003260	.0040858	.0010017	.000924
%RSD	24.02522	19.69920	13.74731	99.88974	538.5297	15.47669	640.1713
#1	-.184420	.0030871	.0037212	.0007022	-.003710	.0054426	-.001180
#2	-.197188	.0045804	.0029123	.0001200	.004302	.0065305	.000595
#3	-.121850	.0042331	.0037510	.0001570	.001684	.0074434	.000152

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB006 Acquired: 1/23/2025 21:01:58 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB006 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005404	-.005471	.0001763
Stddev	.0014925	.000221	.0000696
%RSD	276.2042	4.038134	39.49134
#1	.0022140	-.005217	.0002327
#2	-.000652	-.005618	.0000985
#3	.000059	-.005578	.0001976

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3632.368	72862.22	9727.151	2560.501	4508.838
Stddev	6.629	215.62	39.627	2.755	4.562
%RSD	.1824917	.2959348	.4073893	.1075821	.1011808
#1	3633.801	72754.07	9722.050	2560.325	4508.653
#2	3625.139	73110.52	9769.081	2563.339	4504.372
#3	3638.162	72722.08	9690.320	2557.838	4513.490

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-18 Acquired: 1/23/2025 21:06:07 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ13 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0777406	-.001243	1.389192	.0319584	.0168291	51.08236
Stddev	.0019918	.002554	.002210	.0030239	.0011244	.22896
%RSD	2.562153	205.4509	.1591010	9.461864	6.681132	.4482215
#1	.0762384	-.002231	1.387810	.0287780	.0156066	50.82037
#2	.0800000	.001657	1.391742	.0323006	.0178190	51.24407
#3	.0769835	-.003156	1.388025	.0347966	.0170618	51.18264

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 25.00910	.0062053	.0051030	22.73667	.1359538	.1917207
Stddev	.15375	.0000658	.0001804	.16104	.0001411	.0004531
%RSD	.6147809	1.060840	3.534329	.7082971	.1038242	.2363523
#1	24.93135	.0062053	.0052613	22.55443	.1359021	.1912703
#2	24.90975	.0061395	.0049066	22.79573	.1358457	.1917153
#3	25.18620	.0062711	.0051411	22.85984	.1361135	.1921765

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1212328	142.0894	14.52381	10.50226	.0943808	.0025028
Stddev	.0007481	.6406	.11268	.04906	.0003941	.0000394
%RSD	.6170642	.4508338	.7758438	.4670956	.4175671	1.574244
#1	.1209703	141.3723	14.39565	10.44800	.0939729	.0024673
#2	.1206513	142.6050	14.56842	10.54346	.0944099	.0024959
#3	.1220767	142.2908	14.60736	10.51533	.0947595	.0025452

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.183283	.2669877	1.139368	4.002980	3.284891	.5907847
Stddev	.137368	.0018507	.012301	.064009	.006327	.0040824
%RSD	74.94859	.6931901	1.079622	1.599023	.1926214	.6910057
#1	-.037300	.2691235	1.133731	3.929098	3.286603	.5863235
#2	-.202546	.2659828	1.130896	4.041723	3.277884	.5943340
#3	-.310003	.2658568	1.153477	4.038117	3.290187	.5916967

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-18 Acquired: 1/23/2025 21:06:07 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ13 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070051	6.883386	2.699171	.0093354	1.157728	.0253999
Stddev	.0000876	.009860	.011285	.0005318	.005163	.0005458
%RSD	1.251114	.1432379	.4180820	5.696760	.4459469	2.148955
#1	.0071062	6.872607	2.693589	.0087466	1.152085	.0257109
#2	.0069495	6.885603	2.691765	.0094789	1.158886	.0257192
#3	.0069597	6.891949	2.712159	.0097808	1.162215	.0247697

Elem	Sr4077
Units	ppm
Avg	.2496346
Stddev	.0019724
%RSD	.7900988
#1	.2474917
#2	.2500379
#3	.2513740

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3770.718	76179.40	10472.80	2659.100	4229.566
Stddev	9.152	130.31	30.00	5.407	6.921
%RSD	.2427111	.1710513	.2864544	.2033230	.1636267
#1	3781.151	76306.60	10438.35	2654.465	4236.971
#2	3764.043	76046.19	10486.88	2665.039	4223.261
#3	3766.961	76185.40	10493.17	2657.796	4228.466

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-19 Acquired: 1/23/2025 21:10:11 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ14 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1144772**	**-.004550**	**1.335707**	**.0389749**	**.0200215**	**55.60378**	**19.48729**
Stddev	.0023413	.001316	.001961	.0033556	.0015368	.10235	.09489
%RSD	2.045190	28.92634	.1468397	8.609717	7.675526	.1840674	.4869379
#1	.1119274	-.005670	1.333453	.0413937	.0182474	55.70869	19.52284
#2	.1149740	-.003101	1.336640	.0351440	.0208770	55.59844	19.55927
#3	.1165302	-.004880	1.337027	.0403871	.0209402	55.50420	19.37975

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0090811**	**.0066543**	**35.54331**	**.1874819**	**.3200970**	**.1991055**	**183.0625**
Stddev	.0000635	.0000277	.11075	.0001660	.0015348	.0030226	.2101
%RSD	.6995982	.4162764	.3115993	.0885517	.4794781	1.518095	.1147748
#1	.0091029	.0066674	35.62871	.1876609	.3184122	.2022619	183.2662
#2	.0091308	.0066225	35.58305	.1874519	.3204635	.1962374	183.0748
#3	.0090095	.0066730	35.41817	.1873330	.3214154	.1988172	182.8465

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.76207**	**9.356560**	**.1266190**	**.0055672**	**.3015742**	**.3341237**	**1.064281**
Stddev	.17560	.022367	.0005686	.0000628	.2660745	.0019616	.006736
%RSD	.6816052	.2390569	.4490916	1.127499	88.22854	.5870949	.6329420
#1	25.91561	9.347291	.1266472	.0055297	.0733467	.3363788	1.071655
#2	25.57061	9.382072	.1260368	.0055321	.2375593	.3328118	1.062738
#3	25.79998	9.340317	.1271731	.0056396	.5938166	.3331806	1.058451

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.501798**	**4.430928**	**.7742633**	**.0084517**	**4.902569**	**5.815583**	**.0086099**
Stddev	.093010	.009769	.0016504	.0001788	.013991	.023766	.0004284
%RSD	1.430523	.2204810	.2131512	2.115216	.2853851	.4086647	4.975318
#1	6.571020	4.421728	.7750820	.0084673	4.903583	5.839111	.0086248
#2	6.538300	4.429876	.7753443	.0086221	4.888098	5.816051	.0081742
#3	6.396074	4.441181	.7723637	.0082656	4.916026	5.791586	.0090306

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-19 Acquired: 1/23/2025 21:10:11 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ14 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.368038	.0287234	.3112085
Stddev	.005880	.0009276	.0020657
%RSD	.4297956	3.229582	.6637550
#1	1.370564	.0296626	.3133916
#2	1.372233	.0286997	.3109491
#3	1.361317	.0278078	.3092848

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3759.006	75701.10	10700.67	2629.408	4132.066
Stddev	3.928	125.24	16.97	5.705	9.977
%RSD	.1044838	.1654451	.1586212	.2169754	.2414621
#1	3762.494	75614.30	10702.80	2628.097	4141.554
#2	3759.771	75844.68	10716.48	2635.655	4132.982
#3	3754.752	75644.33	10682.73	2624.473	4121.663

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-20 Acquired: 1/23/2025 21:14:25 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ15 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0761364**	**-.001774**	**2.121557**	**.0273936**	**.0171005**	**48.25167**
Stddev	.0012101	.004441	.010340	.0011390	.0003349	.21815
%RSD	1.589363	250.3431	.4873577	4.157970	1.958662	.4521150
#1	.0758171	.001079	2.109758	.0287070	.0174528	48.29394
#2	.0751180	-.006891	2.129038	.0266763	.0167862	48.44559
#3	.0774741	.000490	2.125875	.0267977	.0170626	48.01547

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **34.29413**	**.0067357**	**.0125776**	**78.56284**	**.1350271**	**.1581155**
Stddev	.36750	.0000952	.0001889	.32253	.0006992	.0005165
%RSD	1.071619	1.413878	1.501527	.4105363	.5178324	.3266876
#1	33.87223	.0066928	.0123603	78.45778	.1352730	.1578330
#2	34.54451	.0068449	.0126707	78.92480	.1355701	.1578019
#3	34.46567	.0066695	.0127019	78.30594	.1342381	.1587117

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3905129**	**130.9068**	**18.19984**	**15.74946**	**.1175272**	**.0036933**
Stddev	.0043260	.5438	.06815	.07208	.0001989	.0005849
%RSD	1.107785	.4153837	.3744309	.4576349	.1692336	15.83643
#1	.3928642	131.0217	18.15735	15.76341	.1173787	.0037974
#2	.3931540	131.3840	18.27844	15.81354	.1177532	.0042192
#3	.3855204	130.3148	18.16373	15.67143	.1174498	.0030634

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.309925**	**.2332392**	**1.768705**	**6.351690**	**6.501684**	**.5597017**
Stddev	.243826	.0007499	.010587	.098585	.026301	.0029935
%RSD	78.67257	.3215300	.5985760	1.552110	.4045312	.5348373
#1	-.263084	.2338291	1.757993	6.265487	6.471413	.5590223
#2	-.092918	.2334931	1.768960	6.459180	6.514689	.5629766
#3	-.573773	.2323952	1.779163	6.330403	6.518948	.5571064

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-20 Acquired: 1/23/2025 21:14:25 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ15 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072128	F 12.18812	5.894473	.0090891	1.138387	.0246845
Stddev	.0000248	.04632	.011377	.0007808	.002764	.0009538
%RSD	.3433929	.3800454	.1930166	8.590547	.2427969	3.863814
#1	.0072282	12.13515	5.883562	.0098540	1.135336	.0246536
#2	.0072261	12.20817	5.893591	.0091202	1.140724	.0256534
#3	.0071843	12.22104	5.906265	.0082933	1.139103	.0237466

Elem	Sr4077
Units	ppm
Avg	.5285789
Stddev	.0015740
%RSD	.2977805
#1	.5281018
#2	.5303363
#3	.5272988

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3622.669	75641.70	10490.60	2575.313	4088.010
Stddev	11.617	322.06	22.20	9.044	14.757
%RSD	.3206667	.4257669	.2116389	.3511967	.3609852
#1	3633.689	75733.38	10513.16	2579.259	4102.340
#2	3623.781	75283.74	10468.77	2564.967	4088.830
#3	3610.536	75907.98	10489.87	2581.715	4072.860

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-21 Acquired: 1/23/2025 21:18:29 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ16 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1054102**	**-.001450**	**1.146328**	**.0433101**	**.0238415**	**78.36049**	**18.40785**
Stddev	.0057227	.002166	.001383	.0007241	.0005571	.07461	.40005
%RSD	5.428989	149.3907	.1206209	1.671975	2.336502	.0952201	2.173254
#1	.1097407	.001049	1.144845	.0430532	.0232457	78.31502	18.86826
#2	.1075676	-.002608	1.146560	.0441276	.0239295	78.31984	18.14515
#3	.0989224	-.002790	1.147581	.0427493	.0243493	78.44660	18.21013

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0075798**	**.0055169**	**18.07510**	**.1865418**	**.1944470**	**.1731788**	**189.8522**
Stddev	.0000801	.0001377	.03891	.0002290	.0006146	.0014968	.0786
%RSD	1.057463	2.496096	.2152805	.1227739	.3160587	.8643134	.0414034
#1	.0076498	.0054802	18.10037	.1867379	.1950469	.1740126	189.8191
#2	.0074924	.0054012	18.09464	.1865975	.1938188	.1740730	189.7955
#3	.0075973	.0056692	18.03029	.1862901	.1944752	.1714508	189.9419

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.71944**	**13.58124**	**.1203594**	**.0029797**	**.1194626**	**.3515410**	**.8985909**
Stddev	.05477	.05110	.0002607	.0005867	.4185700	.0016879	.0049060
%RSD	.3992064	.3762751	.2165681	19.68945	350.3774	.4801430	.5459644
#1	13.76270	13.59381	.1205723	.0027786	-.358593	.3532023	.9013753
#2	13.73776	13.52502	.1200687	.0025200	.296862	.3515930	.9014712
#3	13.65786	13.62488	.1204373	.0036404	.420119	.3498277	.8929263

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.406128**	**3.643118**	**.7868202**	**.0097472**	**5.584037**	**5.255468**	**.0095634**
Stddev	.008725	.024062	.0005764	.0002627	.006803	.024694	.0003764
%RSD	.1613822	.6604715	.0732537	2.694742	.1218376	.4698639	3.935895
#1	5.416111	3.625780	.7871590	.0094447	5.576213	5.278645	.0092372
#2	5.402308	3.632986	.7861547	.0099179	5.588565	5.258263	.0099753
#3	5.399964	3.670590	.7871469	.0098789	5.587332	5.229496	.0094778

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-21 Acquired: 1/23/2025 21:18:29 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ16 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.405915	.0440131	.2107732
Stddev	.004716	.0004605	.0007539
%RSD	.3354469	1.046327	.3576726
#1	1.408851	.0436051	.2109943
#2	1.408419	.0439218	.2113918
#3	1.400475	.0445125	.2099335

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3749.068	76463.34	10764.39	2670.330	4061.618
Stddev	4.681	134.14	32.92	16.307	6.351
%RSD	.1248591	.1754329	.3058498	.6106742	.1563604
#1	3748.495	76405.48	10745.13	2670.866	4061.712
#2	3754.009	76616.70	10802.41	2686.362	4067.921
#3	3744.700	76367.84	10745.64	2653.762	4055.220

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-22 Acquired: 1/23/2025 21:22:34 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ17 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0764763**	**-.009347**	**4.720051**	**.0221838**	**.0267220**	**20.78500**
Stddev	.0026821	.002631	.004606	.0042358	.0017016	.12266
%RSD	3.507052	28.14314	.0975885	19.09413	6.367596	.5901581
#1	.0738631	-.012303	4.724489	.0197234	.0264227	20.77706
#2	.0763436	-.008473	4.715293	.0270748	.0285533	20.66650
#3	.0792222	-.007264	4.720371	.0197531	.0251899	20.91144

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **51.44378**	**.0034746**	**.0141004**	F **802.6925**	**.2042423**	**.0522843**
Stddev	.27373	.0001024	.0000812	2.9880	.0001578	.0002591
%RSD	.5320992	2.948095	.5758045	.3722411	.0772495	.4954968
#1	51.47358	.0035868	.0140139	803.9173	.2044038	.0525789
#2	51.15636	.0033862	.0141749	799.2867	.2040885	.0520921
#3	51.70139	.0034507	.0141124	804.8733	.2042347	.0521818

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1314032**	**160.7614**	**7.251412**	**335.2001**	**.0815036**	**.0011242**
Stddev	.0018251	1.0202	.035683	2.1363	.0005793	.0003341
%RSD	1.388922	.6346007	.4920885	.6373307	.7107066	29.71748
#1	.1293951	160.8295	7.289131	335.4678	.0814203	.0014720
#2	.1318535	159.7089	7.218191	332.9425	.0821200	.0008057
#3	.1329610	161.7459	7.246914	337.1899	.0809705	.0010950

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3869934**	**.2122121**	**4.658519**	**2.364956**	**5.690626**	**.7649500**
Stddev	.3471831	.0019426	.005189	.042143	.003748	.0041186
%RSD	89.71292	.9154207	.1113868	1.781985	.0658699	.5384167
#1	.1145496	.2119388	4.658694	2.345851	5.693432	.7651849
#2	.7779051	.2104206	4.663617	2.335750	5.692078	.7607190
#3	.2685256	.2142769	4.653244	2.413269	5.686369	.7689461

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1045-22 Acquired: 1/23/2025 21:22:34 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCQ17 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064861	F 16.25202	4.729467	.0024317	.5263901	.0232407
Stddev	.0002058	.01641	.021936	.0009989	.0018455	.0011583
%RSD	3.172729	.1009617	.4638123	41.07920	.3506007	4.983756
#1	.0064325	16.26855	4.739775	.0020062	.5259472	.0227396
#2	.0067134	16.23574	4.744350	.0017160	.5284167	.0245651
#3	.0063124	16.25178	4.704275	.0035730	.5248063	.0224173

Elem	Sr4077
Units	ppm
Avg	.8321550
Stddev	.0048530
%RSD	.5831806
#1	.8366355
#2	.8270001
#3	.8328293

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3157.497	64374.10	9624.309	2229.969	3386.151
Stddev	.893	157.68	55.289	8.504	6.876
%RSD	.0282867	.2449415	.5744727	.3813691	.2030582
#1	3157.694	64438.78	9645.409	2239.132	3382.256
#2	3156.522	64489.16	9561.578	2222.329	3382.107
#3	3158.275	64194.37	9665.942	2228.445	3394.090

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-01 Acquired: 1/23/2025 21:26:47 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0714840**	**-.003448**	**1.877251**	**.0280738**	**.0170761**	**57.17409**	**1.766739**
Stddev	.0037424	.002717	.002085	.0006163	.0016609	.24498	.010803
%RSD	5.235319	78.79242	.1110474	2.195355	9.726512	.4284866	.6114492
#1	.0736749	-.001131	1.877140	.0284281	.0154683	57.44941	1.778958
#2	.0671628	-.002775	1.875225	.0273621	.0169747	57.09270	1.762799
#3	.0736144	-.006437	1.879389	.0284311	.0187855	56.98016	1.758458

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057151**	**.0145065**	**144.0841**	**.1438869**	**.1649501**	**.2994046**	**155.1914**
Stddev	.0000469	.0001422	.5857	.0006966	.0002852	.0034120	.6314
%RSD	.8210846	.9802147	.4065289	.4841278	.1729180	1.139596	.4068390
#1	.0057220	.0144578	144.7484	.1445761	.1646935	.3023791	155.9194
#2	.0056651	.0143951	143.8625	.1431831	.1652572	.2956800	154.8626
#3	.0057582	.0146666	143.6416	.1439016	.1648997	.3001549	154.7924

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.160433**	**61.66920**	**.1455209**	**.0019027**	**-.520776**	**.2192152**	**2.125924**
Stddev	.045336	.17487	.0004299	.0001926	.023115	.0035276	.011430
%RSD	.5555580	.2835547	.2953866	10.12270	4.438537	1.609199	.5376362
#1	8.211530	61.87021	.1457785	.0017287	-.544257	.2216202	2.136263
#2	8.144745	61.55216	.1450247	.0018696	-.498046	.2208599	2.127858
#3	8.125025	61.58522	.1457596	.0021096	-.520025	.2151656	2.113650

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.592150**	**6.402619**	**.6664784**	**.0078255**	**6.470111**	**7.765079**	**.0250797**
Stddev	.054745	.011489	.0029803	.0002531	.010518	.007028	.0004250
%RSD	.7210753	.1794493	.4471750	3.234227	.1625552	.0905071	1.694475
#1	7.655361	6.389398	.6698864	.0076402	6.466343	7.760808	.0255028
#2	7.559961	6.408268	.6643603	.0077225	6.461997	7.761239	.0250833
#3	7.561129	6.410190	.6651885	.0081139	6.481993	7.773191	.0246529

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-01 Acquired: 1/23/2025 21:26:47 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.282445	.0336512	.1178638
Stddev	.002701	.0012012	.0009536
%RSD	.2105753	3.569512	.8091033
#1	1.285166	.0348051	.1189649
#2	1.279765	.0337406	.1173191
#3	1.282405	.0324077	.1173072

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3664.311	74246.98	10676.75	2605.908	3935.388
Stddev	3.477	81.91	31.18	9.049	2.309
%RSD	.0948893	.1103195	.2920252	.3472322	.0586692
#1	3667.756	74161.09	10711.56	2596.369	3933.853
#2	3660.803	74255.65	10667.31	2606.985	3938.043
#3	3664.373	74324.22	10651.38	2614.370	3934.267

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-02 Acquired: 1/23/2025 21:30:43 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0482527	-.005668	.4159988	.0022262	.0158509	9.774974
Stddev	.0004207	.000913	.0034433	.0026295	.0029883	.004890
%RSD	.8717969	16.11136	.8277288	118.1151	18.85254	.0500254
#1	.0480172	-.005735	.4123103	-.000756	.0173457	9.776908
#2	.0480025	-.004724	.4191287	.004213	.0124102	9.778600
#3	.0487383	-.006546	.4165575	.003222	.0177969	9.769412

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8705667	.0016651	.0054215	F 1773.746	.0815605	.0548036
Stddev	.0076974	.0000815	.0001717	24.395	.0005112	.0005221
%RSD	.8841843	4.894222	3.166716	1.375342	.6267634	.9527109
#1	.8651449	.0016508	.0055800	1776.551	.0810507	.0542327
#2	.8793770	.0015916	.0052391	1748.070	.0815578	.0549211
#3	.8671780	.0017528	.0054452	1796.618	.0820731	.0552569

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4038405	107.3228	4.406224	F 905.0109	.1230625	-.001765
Stddev	.0028204	.2980	.023726	.5255	.0005504	.000077
%RSD	.6983874	.2776491	.5384752	.0580667	.4472900	4.364684
#1	.4036777	107.3229	4.398390	905.1106	.1235334	-.001732
#2	.4067387	107.6208	4.432877	905.4795	.1231968	-.001854
#3	.4011051	107.0248	4.387405	904.4427	.1224573	-.001711

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -1.73097	.0741468	.9079043	4.541448	3.682479	.4910964
Stddev	.09734	.0027898	.0052405	.030866	.013537	.0020378
%RSD	5.623203	3.762471	.5772104	.6796446	.3676112	.4149388
#1	-1.81323	.0770796	.9082372	4.535096	3.666914	.4912031
#2	-1.75616	.0738344	.9129705	4.574995	3.689015	.4930787
#3	-1.62351	.0715264	.9025053	4.514252	3.691508	.4890074

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-02 Acquired: 1/23/2025 21:30:43 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011026	F 22.52843	2.947116	.0012259	.2294870	.0447151
Stddev	.0002583	.08146	.006841	.0010790	.0015533	.0009673
%RSD	23.42225	.3616019	.2321181	88.01827	.6768398	2.163154
#1	.0008107	22.43745	2.940351	.0008997	.2312501	.0452894
#2	.0013013	22.55324	2.954030	.0003476	.2283206	.0452576
#3	.0011960	22.59461	2.946969	.0024303	.2288902	.0435984

Elem	Sr4077
Units	ppm
Avg	.5679420
Stddev	.0045660
%RSD	.8039493
#1	.5662826
#2	.5731056
#3	.5644377

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2984.224	61764.49	9496.969	2118.052	3044.521
Stddev	9.697	99.16	43.523	5.448	7.058
%RSD	.3249414	.1605434	.4582797	.2572271	.2318201
#1	2985.360	61763.59	9471.344	2123.723	3046.158
#2	2993.304	61864.10	9547.221	2112.858	3050.617
#3	2974.010	61665.79	9472.341	2117.573	3036.789

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-03 Acquired: 1/23/2025 21:34:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0510029	-.001635	.5556079	.0218724	.0209197	49.26600	1.321216
Stddev	.0008940	.000458	.0023728	.0030107	.0008912	.33905	.009483
%RSD	1.752903	28.01058	.4270573	13.76473	4.259907	.6881936	.7177337
#1	.0513003	-.001517	.5557865	.0195749	.0217974	49.37480	1.324929
#2	.0517104	-.001248	.5578863	.0207617	.0200157	48.88591	1.310438
#3	.0499981	-.002141	.5531509	.0252807	.0209460	49.53728	1.328281

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042771	.0090055	191.9625	.1199868	.0998689	.2586796	116.7096
Stddev	.0000869	.0000929	1.0065	.0001022	.0001391	.0010474	.7893
%RSD	2.031435	1.031777	.5243119	.0851606	.1392617	.4048985	.6762718
#1	.0043574	.0089093	191.9800	.1200256	.0998172	.2594879	116.9608
#2	.0041849	.0090126	190.9475	.1198709	.0997631	.2590544	115.8253
#3	.0042891	.0090947	192.9602	.1200639	.1000265	.2574963	117.3428

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.689150	101.1350	.0973832	.0006854	-.421666	.1811937	8.533975
Stddev	.034448	.5336	.0003749	.0002947	.188695	.0016102	.091539
%RSD	.7346277	.5276052	.3850081	43.00120	44.74983	.8886767	1.072645
#1	4.695850	101.2842	.0969575	.0009056	-.279438	.1794306	8.560364
#2	4.651845	100.5427	.0976644	.0003506	-.635728	.1825865	8.432140
#3	4.719756	101.5781	.0975275	.0008002	-.349832	.1815639	8.609421

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.619909	3.720512	.4931629	.0038995	3.272358	7.434068	.0128823
Stddev	.066944	.005758	.0045559	.0004894	.005789	.016806	.0007587
%RSD	1.449025	.1547647	.9238173	12.55015	.1769196	.2260691	5.889854
#1	4.639707	3.720395	.4953818	.0044329	3.277367	7.433216	.0135361
#2	4.545299	3.726328	.4879226	.0034712	3.266019	7.451284	.0130605
#3	4.674720	3.714814	.4961843	.0037943	3.273687	7.417704	.0120503

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-03 Acquired: 1/23/2025 21:34:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.210509	.0279359	.1463791
Stddev	.004286	.0011201	.0011492
%RSD	.3540321	4.009652	.7851066
#1	1.206354	.0271825	.1466717
#2	1.214914	.0274021	.1451118
#3	1.210259	.0292231	.1473537

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3594.072	71869.80	10356.24	2518.550	3929.990
Stddev	8.133	361.08	29.64	14.646	3.322
%RSD	.2262943	.5024143	.2861694	.5815337	.0845382
#1	3599.443	71793.87	10380.57	2508.364	3930.952
#2	3598.058	72262.82	10323.23	2535.334	3932.725
#3	3584.714	71552.73	10364.92	2511.950	3926.293

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-04 Acquired: 1/23/2025 21:38:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0491838	.0016577	.3605240	.0237188	.0139725	42.32327	1.108842
Stddev	.0011382	.0012459	.0010934	.0022215	.0011606	.16161	.007367
%RSD	2.314082	75.15685	.3032936	9.366066	8.306093	.3818425	.6643695
#1	.0481602	.0002704	.3595304	.0228057	.0127918	42.50748	1.116571
#2	.0504095	.0026812	.3603461	.0262514	.0140138	42.25698	1.101901
#3	.0489818	.0020216	.3616955	.0220993	.0151118	42.20534	1.108053

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042829	.0033624	16.98703	.1100877	.1116737	.1122781	108.6511
Stddev	.0001175	.0000648	.06067	.0005951	.0005042	.0011429	.3464
%RSD	2.743912	1.926192	.3571530	.5405333	.4514553	1.017934	.3188157
#1	.0043716	.0033971	17.05148	.1105389	.1114473	.1127721	109.0346
#2	.0043274	.0032877	16.93103	.1103109	.1113224	.1130910	108.3608
#3	.0041496	.0034024	16.97859	.1094133	.1122514	.1109713	108.5580

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.157978	9.030432	.0765210	.0011367	-.178309	.1877633	.9439386
Stddev	.021074	.023695	.0001442	.0001090	.272296	.0026317	.0050388
%RSD	.5068283	.2623878	.1884544	9.587244	152.7104	1.401616	.5338082
#1	4.179836	9.057212	.0764951	.0011401	.041395	.1850247	.9490165
#2	4.137788	9.012188	.0766763	.0010261	-.093372	.1879922	.9389398
#3	4.156309	9.021895	.0763914	.0012440	-.482950	.1902732	.9438595

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.321382	3.850859	.4533115	.0061329	2.417686	7.515246	.0096806
Stddev	.103567	.015346	.0017876	.0003421	.006387	.026884	.0010758
%RSD	1.946243	.3984992	.3943467	5.577855	.2641893	.3577265	11.11292
#1	5.440807	3.850086	.4543342	.0059088	2.419356	7.485703	.0109202
#2	5.267093	3.835915	.4512473	.0059632	2.410629	7.538273	.0091304
#3	5.256246	3.866577	.4543529	.0065266	2.423071	7.521761	.0089912

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-04 Acquired: 1/23/2025 21:38:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.307239	.0199579	.0774340
Stddev	.004658	.0013534	.0005549
%RSD	.3563410	6.781224	.7166436
#1	1.305717	.0204220	.0780716
#2	1.312468	.0210182	.0770598
#3	1.303533	.0184335	.0771706

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3776.099	75818.15	10560.47	2639.481	4280.164
Stddev	10.475	60.93	73.21	1.878	14.807
%RSD	.2774111	.0803655	.6932190	.0711670	.3459438
#1	3787.187	75837.82	10631.16	2638.805	4290.043
#2	3774.743	75749.81	10484.98	2638.033	4287.309
#3	3766.368	75866.82	10565.24	2641.603	4263.139

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-05 Acquired: 1/23/2025 21:42:42 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH9D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0486231	.0000391	.3630454	.0233155	.0146768	41.53875	1.097284
Stddev	.0009740	.0021042	.0012301	.0031460	.0019111	.07171	.003031
%RSD	2.003140	5376.045	.3388219	13.49334	13.02157	.1726459	.2761901
#1	.0476832	-.001699	.3628556	.0196835	.0130637	41.50461	1.094389
#2	.0485582	.002379	.3619213	.0250682	.0167875	41.49049	1.097028
#3	.0496279	-.000562	.3643594	.0251948	.0141791	41.62116	1.100434

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042417	.0032983	16.64376	.1087308	.1119682	.1044780	106.7201
Stddev	.0000895	.0000336	.01979	.0004503	.0003219	.0014744	.2541
%RSD	2.109827	1.018488	.1188810	.4141491	.2875235	1.411220	.2380964
#1	.0042428	.0032852	16.63603	.1088529	.1123182	.1044381	106.9208
#2	.0041517	.0032732	16.62901	.1082321	.1116847	.1059719	106.4344
#3	.0043307	.0033365	16.66625	.1091075	.1119017	.1030239	106.8051

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.096999	8.903491	.0770718	.0004988	-.005291	.1841921	.9427869
Stddev	.005468	.035844	.0003725	.0001903	.199999	.0004075	.0054766
%RSD	.1334741	.4025882	.4833477	38.15399	3779.788	.2212510	.5808984
#1	4.090856	8.866263	.0767260	.0003905	-.013160	.1846574	.9480316
#2	4.098803	8.906441	.0774663	.0007185	-.201240	.1838983	.9432244
#3	4.101337	8.937769	.0770231	.0003873	.198525	.1840208	.9371046

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.206689	3.875116	.4461429	.0057576	2.453475	7.528616	.0094147
Stddev	.022567	.013826	.0019894	.0000862	.005568	.004289	.0012851
%RSD	.4334243	.3567885	.4459029	1.496952	.2269568	.0569752	13.65030
#1	5.232017	3.889860	.4474398	.0056919	2.458663	7.533030	.0081377
#2	5.199329	3.873047	.4438525	.0058552	2.454171	7.528357	.0093986
#3	5.188721	3.862442	.4471365	.0057258	2.447591	7.524462	.0107079

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-05 Acquired: 1/23/2025 21:42:42 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH9D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.308425	.0202390	.0764639
Stddev	.001622	.0003313	.0003838
%RSD	.1239527	1.636956	.5019055
#1	1.310264	.0206007	.0761027
#2	1.307812	.0201660	.0768668
#3	1.307199	.0199502	.0764222

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3766.404	77000.70	10593.06	2665.340	4248.494
Stddev	7.862	134.97	37.24	21.864	2.540
%RSD	.2087360	.1752904	.3515067	.8203208	.0597808
#1	3773.918	76845.14	10557.34	2641.953	4246.149
#2	3767.061	77070.08	10590.20	2668.797	4251.192
#3	3758.235	77086.87	10631.65	2685.270	4248.141

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-04LX5 Acquired: 1/23/2025 21:46:39 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH9L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0078127**	**-.000275**	**.0697788**	**.0073707**	**.0023798**	**8.261599**	**.2090902**
Stddev	.0010614	.000523	.0005090	.0024573	.0010670	.039900	.0006656
%RSD	13.58530	190.5995	.7294925	33.33843	44.83769	.4829565	.3183386
#1	.0071614	-.000019	.0693606	.0054982	.0016411	8.287376	.2097642
#2	.0072393	.000072	.0703456	.0101531	.0036032	8.281780	.2090730
#3	.0090375	-.000877	.0696303	.0064606	.0018952	8.215640	.2084333

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008879**	**.0005928**	**3.337531**	**.0223597**	**.0214758**	**.0208027**	**21.43602**
Stddev	.0000427	.0000429	.001366	.0003026	.0000958	.0013744	.11809
%RSD	4.811209	7.236431	.0409163	1.353512	.4462887	6.606769	.5508742
#1	.0008914	.0005767	3.339045	.0221478	.0214312	.0201325	21.56065
#2	.0008435	.0006415	3.337156	.0222251	.0214104	.0223836	21.42159
#3	.0009288	.0005603	3.336392	.0227063	.0215858	.0198919	21.32581

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8205561**	**1.791700**	**.0145996**	**-.000277**	**-.499110**	**.0368355**	**.1839108**
Stddev	.0004990	.002951	.0002347	.000197	.145338	.0014785	.0035772
%RSD	.0608170	.1647102	1.607646	71.07445	29.11951	4.013752	1.945051
#1	.8201797	1.790251	.0145546	-.000216	-.353315	.0356621	.1826080
#2	.8211222	1.789753	.0148536	-.000498	-.500027	.0363483	.1811676
#3	.8203665	1.795095	.0143907	-.000118	-.643988	.0384961	.1879567

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7461414**	**.7497434**	**.0882551**	**.0007783**	**.4663769**	**1.530209**	**.0022839**
Stddev	.0664082	.0045674	.0008494	.0000787	.0026377	.003894	.0001354
%RSD	8.900217	.6091957	.9624492	10.10893	.5655843	.2544707	5.926560
#1	.7955912	.7485519	.0892263	.0006878	.4641097	1.525897	.0021292
#2	.6706613	.7458900	.0878877	.0008159	.4657491	1.533467	.0023804
#3	.7721717	.7547886	.0876511	.0008311	.4692719	1.531265	.0023422

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-04LX5 Acquired: 1/23/2025 21:46:39 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH9L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2620119	-.000656	.0152204
Stddev	.0011736	.000582	.0000695
%RSD	.4479340	88.70545	.4564246
#1	.2607717	-.000659	.0152999
#2	.2631051	-.001236	.0151899
#3	.2621591	-.000072	.0151714

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3736.027	74685.16	10023.81	2625.026	4513.827
Stddev	3.602	241.22	18.75	6.202	4.512
%RSD	.0964011	.3229868	.1870732	.2362788	.0999697
#1	3732.125	74410.44	10033.15	2619.664	4511.060
#2	3739.224	74782.74	10036.06	2631.819	4519.034
#3	3736.734	74862.31	10002.22	2623.597	4511.386

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-06 Acquired: 1/23/2025 21:50:42 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH9S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1156744**	**.1041577**	**.3918107**	**.1827991**	**.1776055**	**43.54134**	**4.522156**
Stddev	.0018523	.0018635	.0009136	.0015143	.0024633	.06929	.009390
%RSD	1.601302	1.789079	.2331661	.8283841	1.386946	.1591306	.2076468
#1	.1176615	.1024640	.3921627	.1810650	.1799002	43.60639	4.530179
#2	.1139955	.1061539	.3924959	.1834714	.1779136	43.46848	4.524461
#3	.1153664	.1038552	.3907735	.1838607	.1750026	43.54916	4.511828

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0988955**	**.1009476**	**16.21328**	**.5291521**	**1.083078**	**.5601582**	**105.4193**
Stddev	.0002467	.0000625	.03785	.0019569	.001121	.0053011	.1043
%RSD	.2494022	.0619387	.2334213	.3698266	.1035368	.9463547	.0989532
#1	.0988254	.1010195	16.25608	.5313064	1.082168	.5603797	105.4343
#2	.0991696	.1009059	16.19953	.5274842	1.082736	.5653451	105.3083
#3	.0986914	.1009174	16.18424	.5286657	1.084331	.5547499	105.5153

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.813937**	**8.548320**	**1.057540**	**.0707342**	**-.525122**	**1.139247**	**1.755580**
Stddev	.010157	.023259	.001410	.0003730	.322723	.005975	.003265
%RSD	.2109930	.2720901	.1333489	.5273188	61.45680	.5244895	.1859981
#1	4.824931	8.543164	1.055940	.0703052	-.391380	1.144944	1.753214
#2	4.811977	8.528072	1.058603	.0709819	-.290770	1.133027	1.759306
#3	4.804902	8.573725	1.058077	.0709155	-.893216	1.139769	1.754221

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.044813**	**3.755437**	**.4408005**	**.0050543**	**2.363137**	**7.210796**	**.0096742**
Stddev	.024970	.009461	.0004929	.0000888	.007878	.023194	.0007029
%RSD	.4949716	.2519198	.1118161	1.757774	.3333781	.3216597	7.265286
#1	5.022966	3.758988	.4407250	.0049636	2.367258	7.210442	.0104710
#2	5.039439	3.744714	.4403496	.0050583	2.354053	7.234165	.0094093
#3	5.072032	3.762608	.4413267	.0051411	2.368100	7.187780	.0091423

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-06 Acquired: 1/23/2025 21:50:42 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPH9S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.245136	.0188984	.0733955
Stddev	.004560	.0005570	.0001981
%RSD	.3661949	2.947114	.2699769
#1	1.246052	.0188547	.0734456
#2	1.249168	.0194758	.0735638
#3	1.240188	.0183645	.0731771

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3785.274	75812.48	10507.05	2651.593	4285.825
Stddev	.549	185.70	8.45	5.096	6.764
%RSD	.0145094	.2449431	.0803848	.1921910	.1578231
#1	3785.906	75638.28	10499.15	2650.330	4293.431
#2	3784.909	76007.86	10515.95	2657.202	4283.560
#3	3785.007	75791.30	10506.03	2647.247	4280.484

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-07 Acquired: 1/23/2025 21:54:34 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0599135	-.006148	6.131408	.0147600	.0153726	30.20630	3.670968
Stddev	.0028216	.001699	.010943	.0036462	.0004117	.10242	.015819
%RSD	4.709443	27.63058	.1784734	24.70304	2.678163	.3390586	.4309189
#1	.0607862	-.007006	6.125530	.0179800	.0157693	30.11087	3.660551
#2	.0621957	-.007245	6.124660	.0154990	.0149474	30.19353	3.663183
#3	.0567587	-.004191	6.144034	.0108009	.0154011	30.31451	3.689171

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037371	.0101645	735.4205	.0852409	.1203017	.2399431	123.5883
Stddev	.0001155	.0001401	4.2615	.0001540	.0003390	.0034975	.4389
%RSD	3.089859	1.378132	.5794696	.1806924	.2817492	1.457650	.3551658
#1	.0037286	.0103214	730.5432	.0850706	.1200263	.2375335	123.3391
#2	.0038565	.0100521	738.4243	.0852814	.1201987	.2439547	123.3308
#3	.0036260	.0101198	737.2941	.0853706	.1206803	.2383411	124.0952

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.902063	357.9730	.1209524	.0020587	-.882063	.1206198	1.158303
Stddev	.044250	1.3837	.0002081	.0001225	.021054	.0023762	.005095
%RSD	.4468793	.3865403	.1720814	5.950720	2.386852	1.969949	.4398251
#1	9.872032	357.1915	.1207819	.0021312	-.906372	.1233235	1.155362
#2	9.881277	357.1568	.1211844	.0021277	-.869629	.1188634	1.155362
#3	9.952879	359.5706	.1208910	.0019172	-.870190	.1196726	1.164186

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.967027	5.984720	.5497162	.0048041	9.996438	6.659147	.0071244
Stddev	.026649	.016673	.0010564	.0004725	.032799	.008357	.0012414
%RSD	.4466090	.2785863	.1921775	9.835186	.3281067	.1254977	17.42447
#1	5.936537	5.991257	.5488937	.0047483	10.00443	6.654654	.0067696
#2	5.978677	5.965769	.5493473	.0043619	9.96038	6.668790	.0085046
#3	5.985868	5.997133	.5509077	.0053019	10.02451	6.653998	.0060991

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-07 Acquired: 1/23/2025 21:54:34 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7826524	.0306763	.2937835
Stddev	.0020378	.0006245	.0010779
%RSD	.2603654	2.035870	.3669015
#1	.7838915	.0299711	.2930989
#2	.7837650	.0311595	.2932256
#3	.7803005	.0308982	.2950260

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3364.142	67580.26	10164.76	2327.024	3468.883
Stddev	3.266	184.01	25.67	7.597	1.822
%RSD	.0970898	.2722828	.2525499	.3264878	.0525317
#1	3367.491	67698.91	10146.81	2326.943	3470.684
#2	3363.970	67673.58	10153.30	2334.662	3468.926
#3	3360.965	67368.29	10194.16	2319.468	3467.040

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-08 Acquired: 1/23/2025 21:58:39 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0583829	-.002228	.2838043	.0299282	.0136500	53.99826	1.953851
Stddev	.0018501	.002253	.0009569	.0017480	.0013886	.27169	.010395
%RSD	3.168925	101.1072	.3371563	5.840557	10.17297	.5031520	.5320331
#1	.0600867	-.004230	.2827087	.0312764	.0141960	53.69827	1.945408
#2	.0564149	.000212	.2842279	.0279532	.0146827	54.06874	1.965461
#3	.0586471	-.002667	.2844762	.0305548	.0120714	54.22778	1.950684

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052364	.0047352	18.00237	.1153801	.0956379	.0641865	138.5840
Stddev	.0000972	.0000789	.08843	.0004228	.0002527	.0036494	.6886
%RSD	1.856207	1.666432	.4912306	.3664534	.2642445	5.685546	.4968676
#1	.0053262	.0048252	17.93225	.1149470	.0957756	.0668901	137.7942
#2	.0051332	.0047027	18.10172	.1157918	.0953463	.0600355	138.8996
#3	.0052497	.0046777	17.97315	.1154015	.0957919	.0656339	139.0582

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.100114	11.93854	.0938256	.0012644	-.309060	.2272884	.3477533
Stddev	.040114	.05616	.0004438	.0004186	.194004	.0018335	.0037988
%RSD	.4952302	.4703756	.4730121	33.10822	62.77242	.8066728	1.092392
#1	8.077160	11.88837	.0940307	.0007931	-.240006	.2252267	.3484240
#2	8.146433	11.99920	.0933163	.0015932	-.528144	.2287361	.3511721
#3	8.076749	11.92806	.0941298	.0014069	-.159030	.2279023	.3436638

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.933205	2.691607	.5759108	.0066329	1.725783	8.069658	.0072908
Stddev	.011034	.007037	.0038113	.0003434	.004047	.044995	.0002820
%RSD	.2805450	.2614250	.6617956	5.177611	.2345074	.5575763	3.868269
#1	3.934897	2.698773	.5715101	.0065080	1.729464	8.090668	.0075962
#2	3.943296	2.691339	.5780656	.0063694	1.721449	8.100305	.0072362
#3	3.921423	2.684708	.5781565	.0070213	1.726435	8.018002	.0070401

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-08 Acquired: 1/23/2025 21:58:39 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.364629	.0359083	.1159187
Stddev	.006044	.0013171	.0006397
%RSD	.4428711	3.667937	.5518544
#1	1.367929	.0349492	.1154556
#2	1.368304	.0353657	.1166486
#3	1.357654	.0374101	.1156519

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3736.378	75909.55	10583.28	2656.745	4201.006
Stddev	7.565	142.72	49.19	15.664	6.166
%RSD	.2024688	.1880140	.4648105	.5896011	.1467812
#1	3742.935	75993.84	10532.59	2653.077	4202.364
#2	3738.098	75744.76	10586.42	2643.241	4206.379
#3	3728.101	75990.04	10630.82	2673.918	4194.273

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-09 Acquired: 1/23/2025 22:02:36 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0317850**	**-.002072**	**.3678916**	**.0207934**	**.0112373**	**37.46150**
Stddev	.0023662	.001213	.0012398	.0071878	.0020750	.16054
%RSD	7.444398	58.53017	.3369914	34.56771	18.46548	.4285421
#1	.0297607	-.002923	.3689445	.0273117	.0129448	37.63024
#2	.0312078	-.002608	.3682051	.0130847	.0118393	37.31066
#3	.0343864	-.000683	.3665252	.0219839	.0089278	37.44360

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **21.84117**	**.0034835**	**.0061984**	**201.1128**	**.0845062**	**.0500201**
Stddev	.11668	.0000466	.0000841	.4982	.0005414	.0002918
%RSD	.5342268	1.337974	1.357090	.2477098	.6406351	.5833483
#1	21.71769	.0035343	.0062904	201.4570	.0848144	.0497653
#2	21.85623	.0034427	.0061254	200.5415	.0848230	.0503384
#3	21.94959	.0034735	.0061794	201.3398	.0838811	.0499567

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0929959**	**92.33307**	**6.497291**	**96.92140**	**.0551854**	**.0011267**
Stddev	.0019930	.26642	.016649	.33247	.0004920	.0002422
%RSD	2.143099	.2885420	.2562433	.3430350	.8915100	21.49739
#1	.0952537	92.60409	6.489926	97.24345	.0556340	.0010429
#2	.0922527	92.07150	6.485595	96.57940	.0546593	.0013997
#3	.0914813	92.32362	6.516352	96.94135	.0552629	.0009376

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.352545**	**.1614741**	**1.257392**	**2.967231**	**3.127168**	**.4010605**
Stddev	.167548	.0022774	.003883	.024366	.013119	.0009423
%RSD	47.52508	1.410358	.3088459	.8211638	.4195010	.2349604
#1	-.340052	.1629213	1.257816	2.991733	3.124757	.4013671
#2	-.191594	.1626520	1.253314	2.966957	3.115423	.4000031
#3	-.525990	.1588490	1.261046	2.943003	3.141325	.4018114

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-09 Acquired: 1/23/2025 22:02:36 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ2 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052200	7.683613	6.507353	.0046936	.8836854	.0202072
Stddev	.0005251	.016426	.022478	.0003567	.0023329	.0003512
%RSD	10.05880	.2137833	.3454260	7.600654	.2639933	1.738082
#1	.0058107	7.674557	6.481700	.0050653	.8810052	.0202337
#2	.0048065	7.673707	6.523603	.0046616	.8852593	.0205444
#3	.0050427	7.702574	6.516756	.0043539	.8847919	.0198434

Elem	Sr4077
Units	ppm
Avg	.3225463
Stddev	.0009668
%RSD	.2997273
#1	.3228361
#2	.3214678
#3	.3233350

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3524.083	71710.61	10273.04	2483.982	3906.307
Stddev	7.136	136.30	70.06	3.459	6.611
%RSD	.2024807	.1900706	.6819314	.1392434	.1692414
#1	3525.446	71774.87	10324.61	2485.299	3901.741
#2	3530.440	71554.06	10193.28	2486.588	3913.888
#3	3516.365	71802.90	10301.24	2480.058	3903.292

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-10 Acquired: 1/23/2025 22:06:42 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0280913	-.001525	.4965524	.0169043	.0113031	30.69563	1.875191
Stddev	.0029335	.002951	.0013915	.0022779	.0014867	.14891	.003345
%RSD	10.44283	193.4593	.2802244	13.47549	13.15306	.4851227	.1783737
#1	.0247040	-.001608	.4949464	.0179495	.0127182	30.54466	1.872662
#2	.0297678	.001466	.4973967	.0142914	.0097538	30.84240	1.878984
#3	.0298021	-.004434	.4973141	.0184721	.0114373	30.69982	1.873928

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031009	.0053954	22.60057	.0794641	.0341769	.4447264	84.94895
Stddev	.0000852	.0000735	.03515	.0002899	.0003373	.0053019	.37284
%RSD	2.747297	1.362579	.1555296	.3648824	.9869553	1.192183	.4388934
#1	.0031577	.0053158	22.56380	.0795315	.0338894	.4400902	84.54179
#2	.0031420	.0054608	22.60408	.0791464	.0345482	.4505072	85.27366
#3	.0030029	.0054095	22.63383	.0797144	.0340931	.4435818	85.03140

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.347947	3.941866	.0491291	.0008086	-.151685	.1442160	.8723234
Stddev	.011081	.035010	.0005617	.0005008	.303401	.0009159	.0028514
%RSD	.1745571	.8881701	1.143379	61.93706	200.0210	.6351178	.3268787
#1	6.335333	3.907389	.0494250	.0005581	-.416845	.1438299	.8690308
#2	6.356111	3.977387	.0484812	.0013852	.179187	.1452617	.8739653
#3	6.352396	3.940822	.0494810	.0004824	-.217396	.1435562	.8739740

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.133335	1.949598	.3601042	.0041233	1.681947	5.259565	.0091839
Stddev	.033315	.004022	.0021495	.0001534	.004070	.018795	.0002078
%RSD	1.561647	.2063230	.5969157	3.721442	.2419930	.3573544	2.262057
#1	2.117555	1.950188	.3578077	.0040119	1.684702	5.240419	.0093818
#2	2.171608	1.945313	.3620680	.0040597	1.683867	5.260288	.0092025
#3	2.110842	1.953293	.3604368	.0042983	1.677272	5.277989	.0089676

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-10 Acquired: 1/23/2025 22:06:42 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8245838	.0150680	.0958025
Stddev	.0034430	.0015727	.0001812
%RSD	.4175383	10.43768	.1891035
#1	.8211427	.0132659	.0956792
#2	.8245801	.0157741	.0960105
#3	.8280286	.0161640	.0957179

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3789.408	76099.65	10604.80	2659.794	4361.288
Stddev	5.212	161.96	24.08	4.583	3.226
%RSD	.1375338	.2128203	.2271032	.1723240	.0739577
#1	3786.243	76270.93	10629.52	2664.735	4357.787
#2	3795.423	75949.00	10603.48	2655.682	4361.940
#3	3786.558	76079.03	10581.41	2658.964	4364.139

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-11 Acquired: 1/23/2025 22:10:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0424901	-.002006	.2269442	.0229685	.0105633	45.20034	2.570205
Stddev	.0019362	.001312	.0023366	.0014865	.0017303	.26884	.008516
%RSD	4.556774	65.40717	1.029609	6.471857	16.38009	.5947833	.3313234
#1	.0417445	-.003332	.2284295	.0224624	.0122070	45.48432	2.578808
#2	.0410376	-.000708	.2242509	.0246419	.0087578	44.94974	2.561780
#3	.0446882	-.001979	.2281523	.0218011	.0107251	45.16697	2.570026

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038832	.0048102	31.52949	.0991610	.0601996	.0971431	106.6753
Stddev	.0000705	.0001076	.16231	.0005572	.0004574	.0021544	.6413
%RSD	1.814704	2.236229	.5147852	.5618848	.7598609	2.217805	.6011444
#1	.0038876	.0046882	31.69620	.0997970	.0598586	.0988023	107.3549
#2	.0038107	.0048511	31.37197	.0989269	.0600208	.0947082	106.0808
#3	.0039514	.0048914	31.52031	.0987591	.0607195	.0979187	106.5903

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.918321	9.285923	.0675792	.0009283	-.024156	.1921884	.4698216
Stddev	.024943	.041807	.0004771	.0004539	.239226	.0044658	.0018526
%RSD	.3605311	.4502222	.7059080	48.89732	990.3375	2.323657	.3943123
#1	6.943824	9.324089	.0677764	.0010556	-.240735	.1904644	.4706313
#2	6.893979	9.292441	.0670351	.0004243	.232624	.1888416	.4677020
#3	6.917160	9.241240	.0679260	.0013049	-.064357	.1972593	.4711315

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.427238	4.337026	.4507156	.0060054	4.265508	6.748381	.0066607
Stddev	.048443	.021266	.0033908	.0002823	.029505	.034967	.0005254
%RSD	.8925985	.4903330	.7523120	4.700453	.6917013	.5181502	7.888501
#1	5.476926	4.335909	.4541224	.0059707	4.254081	6.708194	.0072518
#2	5.380143	4.316341	.4473411	.0063035	4.243426	6.765099	.0064836
#3	5.424646	4.358828	.4506833	.0057421	4.299017	6.771851	.0062468

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-11 Acquired: 1/23/2025 22:10:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.038444	.0219623	.1538173
Stddev	.003028	.0013533	.0003786
%RSD	.2915766	6.161865	.2461414
#1	1.034947	.0233812	.1541783
#2	1.040195	.0218197	.1534232
#3	1.040189	.0206860	.1538504

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3751.296	76969.46	10637.74	2670.298	4272.905
Stddev	5.331	370.36	39.69	22.679	14.709
%RSD	.1421105	.4811754	.3731487	.8493029	.3442393
#1	3756.324	76558.17	10666.73	2645.037	4277.119
#2	3751.859	77073.66	10592.50	2676.952	4285.048
#3	3745.707	77276.56	10654.00	2688.906	4256.549

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-12 Acquired: 1/23/2025 22:14:39 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0517908	-.000893	.3719143	.0261257	.0146791	40.96300	16.65807
Stddev	.0009289	.002720	.0013741	.0031414	.0005405	.04329	.21774
%RSD	1.793508	304.5188	.3694635	12.02434	3.681988	.1056706	1.307141
#1	.0522176	.001973	.3734661	.0254900	.0143188	40.91414	16.42715
#2	.0524295	-.001214	.3714248	.0295363	.0153005	40.99655	16.68738
#3	.0507252	-.003438	.3708520	.0233507	.0144178	40.97832	16.85967

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034550	.0042788	93.02483	.1173400	.0582402	.0974029	137.2698
Stddev	.0000495	.0000623	.15366	.0004203	.0002426	.0024628	.1096
%RSD	1.433978	1.456701	.1651866	.3582097	.4166144	2.528421	.0798337
#1	.0034955	.0042080	92.87898	.1168774	.0581514	.0945592	137.2285
#2	.0033997	.0043034	93.01025	.1174440	.0580545	.0988009	137.1868
#3	.0034698	.0043252	93.18527	.1176985	.0585148	.0988484	137.3940

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.731507	47.15021	.0577321	.0003125	-.044275	.2317194	.4850540
Stddev	.011087	.06838	.0006210	.0004206	.318991	.0009288	.0026272
%RSD	.2343141	.1450194	1.075605	134.6034	720.4722	.4008105	.5416309
#1	4.719879	47.09576	.0582403	-.000083	.209120	.2306593	.4831136
#2	4.732682	47.12792	.0579161	.000265	.060541	.2321094	.4880437
#3	4.741959	47.22695	.0570400	.000755	-.402487	.2323897	.4840047

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.124705	1.865547	.5707328	.0062518	5.323014	6.147612	.0069166
Stddev	.045815	.011256	.0005079	.0003949	.014199	.021282	.0009292
%RSD	2.156298	.6033857	.0889822	6.316045	.2667480	.3461795	13.43496
#1	2.176338	1.852938	.5702135	.0061311	5.308151	6.125607	.0058674
#2	2.088911	1.869122	.5712283	.0059314	5.336439	6.168088	.0072467
#3	2.108866	1.874583	.5707565	.0066929	5.324451	6.149140	.0076357

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-12 Acquired: 1/23/2025 22:14:39 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.063025	.0145301	.2234699
Stddev	.002022	.0009617	.0001919
%RSD	.1901770	6.618563	.0858905
#1	1.062483	.0155616	.2232509
#2	1.065263	.0136583	.2236089
#3	1.061330	.0143704	.2235499

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3559.709	72574.95	10191.16	2510.491	4033.875
Stddev	10.569	59.36	8.45	8.492	8.277
%RSD	.2969167	.0817969	.0828893	.3382507	.2051937
#1	3571.912	72573.08	10192.68	2502.871	4043.346
#2	3553.750	72635.23	10182.05	2508.957	4030.254
#3	3553.463	72516.55	10198.74	2519.646	4028.026

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-13 Acquired: 1/23/2025 22:18:43 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0467122	-.000805	.2593437	.0289427	.0140520	40.03756	4.453198
Stddev	.0022368	.001860	.0005691	.0016095	.0006336	.71408	.099722
%RSD	4.788583	231.1146	.2194385	5.560902	4.508829	1.783533	2.239335
#1	.0473042	-.002192	.2599338	.0303612	.0135061	40.28634	4.481740
#2	.0485934	.001309	.2587982	.0271936	.0139030	40.59398	4.535537
#3	.0442388	-.001530	.2592993	.0292732	.0147467	39.23237	4.342317

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029591	.0051389	67.41287	.1172736	.0462139	.1143239	135.4865
Stddev	.0000707	.0001471	1.36753	.0025046	.0005713	.0016556	2.5602
%RSD	2.388383	2.861628	2.028584	2.135667	1.236260	1.448147	1.889652
#1	.0030330	.0050079	67.92760	.1190166	.0455562	.1157191	136.3693
#2	.0029521	.0051109	68.44833	.1184008	.0464983	.1147580	137.4884
#3	.0028922	.0052979	65.86267	.1144036	.0465872	.1124945	132.6016

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.289021	31.73376	.0483549	.0013561	-.059190	.2396130	1.189040
Stddev	.094466	.58677	.0002241	.0003030	.298957	.0029447	.024060
%RSD	2.202513	1.849045	.4635027	22.34093	505.0765	1.228926	2.023510
#1	4.322141	31.88685	.0482853	.0010095	.274336	.2392797	1.196461
#2	4.362468	32.22881	.0486055	.0014881	-.148848	.2427101	1.208516
#3	4.182455	31.08562	.0481738	.0015707	-.303059	.2368491	1.162144

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.408822	1.733696	.5660198	.0064577	2.292063	6.497181	.0080854
Stddev	.034985	.011068	.0110860	.0003943	.018062	.073945	.0008462
%RSD	2.483245	.6383846	1.958587	6.105366	.7880152	1.138111	10.46559
#1	1.394395	1.721715	.5708565	.0067778	2.271312	6.462360	.0084771
#2	1.448713	1.735835	.5738657	.0060173	2.300625	6.582108	.0071144
#3	1.383359	1.743538	.5533373	.0065780	2.304251	6.447074	.0086649

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-13 Acquired: 1/23/2025 22:18:43 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.074363**	**.0143796**	**.1016475**
Stddev	.017583	.0014503	.0023086
%RSD	1.636589	10.08554	2.271223
#1	1.066947	.0143431	.1022715
#2	1.094438	.0158478	.1035800
#3	1.061702	.0129480	.0990910

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3720.008**	**73639.86**	**10437.18**	**2588.713**	**4283.865**
Stddev	7.243	1306.46	82.13	43.768	11.672
%RSD	.1947050	1.774114	.7869209	1.690707	.2724564
#1	3727.072	72763.04	10470.33	2568.961	4297.240
#2	3720.354	73015.15	10343.65	2558.303	4278.616
#3	3712.598	75141.39	10497.55	2638.876	4275.739

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-14 Acquired: 1/23/2025 22:22:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0320046**	**-.006572**	**.2335859**	**.0626771**	**.0367886**	**30.61164**
Stddev	.0018441	.002225	.0024082	.0033246	.0010079	.24993
%RSD	5.762158	33.86513	1.030970	5.304332	2.739608	.8164489
#1	.0299758	-.008677	.2312258	.0654464	.0369789	30.62991
#2	.0335792	-.006796	.2360395	.0635948	.0356991	30.85193
#3	.0324587	-.004243	.2334923	.0589900	.0376877	30.35307

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.222614**	**.0024003**	**.0112131**	**115.6268**	**.2564475**	**.0573464**
Stddev	.046267	.0001637	.0001174	.7113	.0006445	.0006321
%RSD	.5016711	6.818278	1.046804	.6151441	.2513295	1.102205
#1	9.179305	.0024934	.0111815	115.6341	.2571833	.0568030
#2	9.217178	.0022114	.0111147	116.3344	.2561761	.0571960
#3	9.271359	.0024963	.0113430	114.9119	.2559830	.0580401

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3341213**	**347.9210**	**3.594639**	**30.42159**	**.1717662**	**.0004858**
Stddev	.0019936	2.5332	.020598	.15743	.0003040	.0002632
%RSD	.5966802	.7280930	.5730061	.5175097	.1770099	54.19240
#1	.3364172	348.4783	3.596194	30.50958	.1718623	.0003914
#2	.3331187	350.1291	3.614415	30.51535	.1720105	.0007832
#3	.3328280	345.1555	3.573308	30.23983	.1714257	.0002827

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1451481**	**.1273126**	**4.820080**	**3.763914**	**9.319644**	**1.457022**
Stddev	.2217164	.0014001	.030813	.064571	.028539	.014528
%RSD	152.7518	1.099768	.6392622	1.715534	.3062204	.9971300
#1	-.009827	.1258055	4.812798	3.820004	9.294045	1.460044
#2	.399116	.1275592	4.853882	3.778411	9.350415	1.469803
#3	.046156	.1285731	4.793561	3.693326	9.314471	1.441221

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-14 Acquired: 1/23/2025 22:22:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0296397	F 10.84519	6.626812	.0451273	.7486947	.0231425
Stddev	.0006507	.01808	.019274	.0008503	.0012150	.0009857
%RSD	2.195193	.1667227	.2908433	1.884160	.1622783	4.259174
#1	.0289455	10.82435	6.617581	.0448502	.7475941	.0242770
#2	.0297380	10.85674	6.613889	.0460815	.7484915	.0226546
#3	.0302356	10.85448	6.648964	.0444501	.7499984	.0224960

Elem	Sr4077
Units	ppm
Avg	.2863223
Stddev	.0021226
%RSD	.7413403
#1	.2868204
#2	.2881515
#3	.2839949

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3587.145	73746.28	10493.37	2544.951	3986.946
Stddev	6.972	166.83	56.78	10.734	5.544
%RSD	.1943495	.2262266	.5410681	.4217900	.1390557
#1	3579.878	73853.84	10521.54	2553.002	3987.430
#2	3593.777	73554.09	10530.56	2532.764	3992.232
#3	3587.779	73830.91	10428.02	2549.088	3981.176

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV007 Acquired: 1/23/2025 22:26:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV007 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.738413**	**4.702922**	**24.11886**	**4.691742**	**4.742521**	**387.8176**
Stddev	.021770	.038893	.01324	.007880	.020602	2.3509
%RSD	.4594438	.8269908	.0548867	.1679613	.4344050	.6061810
#1	4.740960	4.743574	24.13414	4.688996	4.738933	385.8821
#2	4.715481	4.666067	24.11093	4.685602	4.723949	390.4337
#3	4.758797	4.699124	24.11150	4.700628	4.764681	387.1370

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.763878**	**.4880483**	**2.455820**	**387.8376**	**15.37359**	**2.431779**
Stddev	.058391	.0037342	.002500	2.8548	.01543	.004174
%RSD	.5980279	.7651289	.1017795	.7360762	.1003427	.1716551
#1	9.792596	.4913100	2.458321	385.8716	15.37146	2.436425
#2	9.802348	.4888597	2.453322	386.5290	15.35934	2.428344
#3	9.696689	.4839751	2.455817	391.1121	15.38998	2.430568

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.39086**	**399.1445**	**14.62492**	**392.9408**	**2.433379**	**1.253083**
Stddev	.05386	2.0779	.05303	1.6345	.000195	.000891
%RSD	.3742893	.5205961	.3625788	.4159755	.0080171	.0710901
#1	14.41832	397.3668	14.56619	391.4736	2.433507	1.253343
#2	14.42547	398.6378	14.63928	392.6461	2.433475	1.253814
#3	14.32880	401.4289	14.66929	394.7026	2.433154	1.252091

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**380.7877**	**2.435193**	**14.86222**	**146.0230**	**5.054097**	F **5.823466**
Stddev	2.6105	.005631	.09108	.7437	.004730	.023417
%RSD	.6855434	.2312536	.6128529	.5092842	.0935809	.4021084
#1	382.2935	2.441575	14.75710	145.4603	5.055014	5.843026
#2	382.2963	2.433078	14.91763	145.7427	5.058301	5.829853
#3	377.7734	2.430925	14.91194	146.8661	5.048976	5.797518

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV007 Acquired: 1/23/2025 22:26:45 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV007 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.708233**	**4.938573**	**4.842161**	**4.964422**	**4.817646**	**4.765142**
Stddev	.012526	.014690	.018192	.006224	.016905	.024293
%RSD	.2660347	.2974453	.3756909	.1253645	.3508915	.5097966
#1	4.710303	4.955183	4.847414	4.961319	4.833763	4.741266
#2	4.694802	4.927292	4.857148	4.971588	4.819123	4.764329
#3	4.719596	4.933244	4.821921	4.960361	4.800051	4.789831

Elem	Sr4077
Units	ppm
Avg	**4.941767**
Stddev	.025664
%RSD	.5193240
#1	4.925834
#2	4.928095
#3	4.971372

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2874.798**	**61011.11**	**9296.905**	**2123.821**	**3269.270**
Stddev	5.551	147.19	59.357	7.329	7.059
%RSD	.1930779	.2412573	.6384612	.3450890	.2159151
#1	2871.710	61180.95	9260.641	2130.256	3261.222
#2	2881.206	60920.47	9264.669	2115.843	3272.178
#3	2871.479	60931.92	9365.406	2125.363	3274.411

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB007 Acquired: 1/23/2025 22:31:03 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB007 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001587**	**.0003456**	**-.000986**	**.0017948**	**.0004093**	**-.000394**	**-.000894**
Stddev	.002231	.0003124	.000792	.0021111	.0014312	.005707	.000676
%RSD	140.6427	90.39166	80.34822	117.6212	349.6600	1448.316	75.54285
#1	.000889	.0001845	-.001046	.0021436	-.001239	.003626	-.000158
#2	-.003444	.0007057	-.001747	.0037098	.001333	.002117	-.001041
#3	-.002204	.0001467	-.000166	-.000469	.001134	-.006926	-.001485

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000802**	**.0000320**	**.0132341**	**.0006413**	**-.000222**	**.0003247**	**.0110855**
Stddev	.0000213	.0000402	.0004579	.0002984	.000143	.0017425	.0041493
%RSD	26.49477	125.3423	3.460294	46.53133	64.20754	536.6756	37.43011
#1	.0001006	.0000112	.0133914	.0003206	-.000058	.0014337	.0119788
#2	.0000818	.0000066	.0135926	.0009108	-.000301	-.001684	.0147154
#3	.0000582	.0000783	.0127182	.0006924	-.000308	.001224	.0065623

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003823**	**.0195031**	**.0001201**	**-.000397**	**-.235363**	**.0010717**	**-.000477**
Stddev	.0001892	.0062251	.0000743	.000449	.498824	.0018074	.001539
%RSD	49.48267	31.91826	61.88510	113.0690	211.9384	168.6551	322.6367
#1	.0003662	.0236007	.0001936	-.000429	-.404390	.0011857	.001276
#2	.0005790	.0123398	.0001216	-.000830	.326013	-.000790	-.001608
#3	.0002017	.0225689	.0000450	.000067	-.627711	.002819	-.001099

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.223826**	**.0030479**	**.0031324**	**-.000108**	**.0012774**	**.0049288**	**-.000408**
Stddev	.049448	.0004326	.0005299	.000241	.0007147	.0010127	.000754
%RSD	22.09211	14.19154	16.91604	222.3499	55.94415	20.54697	184.7129
#1	-.253620	.0028397	.0036380	-.000266	.0008858	.0044988	.000257
#2	-.251111	.0027588	.0031780	-.000228	.0021023	.0060856	-.001227
#3	-.166747	.0035452	.0025812	.000169	.0008442	.0042021	-.000254

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB007 Acquired: 1/23/2025 22:31:03 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB007 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0010540	-.005549	.0001203
Stddev	.0003313	.000871	.0000645
%RSD	31.43009	15.69253	53.61156
#1	.0010056	-.006169	.0000463
#2	.0007496	-.004553	.0001505
#3	.0014068	-.005924	.0001642

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3659.818	72699.14	9752.509	2569.889	4547.163
Stddev	4.919	243.42	32.821	12.428	9.062
%RSD	.1344103	.3348252	.3365418	.4836137	.1992942
#1	3658.665	72418.59	9730.275	2556.426	4544.211
#2	3655.578	72854.29	9790.205	2580.924	4539.945
#3	3665.211	72824.54	9737.046	2572.319	4557.333

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-15 Acquired: 1/23/2025 22:35:12 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0454187	.0003406	.2938132	.0261415	.0139534	49.20931	3.107273
Stddev	.0027241	.0022091	.0026485	.0012041	.0009068	.31897	.034350
%RSD	5.997862	648.6171	.9014264	4.606091	6.498798	.6481879	1.105476
#1	.0431009	.0016174	.2915964	.0247805	.0130315	49.47756	3.140080
#2	.0447359	.0016146	.2930970	.0265762	.0139846	48.85662	3.071564
#3	.0484193	-.002210	.2967461	.0270680	.0148443	49.29376	3.110174

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053299	.0057022	28.58967	.0997269	.0917516	.0799498	117.9980
Stddev	.0000873	.0000456	.22303	.0006917	.0002847	.0020090	.6390
%RSD	1.637868	.7996316	.7801009	.6936225	.3102649	2.512777	.5415155
#1	.0052413	.0056943	28.76688	.1001143	.0914311	.0788834	118.4930
#2	.0053326	.0056611	28.33924	.0989282	.0918489	.0786989	117.2766
#3	.0054159	.0057512	28.66290	.1001381	.0919749	.0822671	118.2242

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.42267	10.83899	.0948254	.0016400	-.180612	.2082638	.4683306
Stddev	.09269	.05432	.0001614	.0002270	.174452	.0016641	.0054099
%RSD	.8893464	.5011522	.1702064	13.84377	96.58930	.7990293	1.155142
#1	10.51089	10.88023	.0947078	.0014114	-.376558	.2101658	.4692941
#2	10.32607	10.77744	.0947589	.0016433	-.123105	.2075493	.4625037
#3	10.43107	10.85929	.0950094	.0018654	-.042174	.2070763	.4731940

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.911408	4.144894	.4973518	.0069721	2.836524	5.095113	.0079638
Stddev	.092323	.011008	.0033292	.0004055	.001387	.001064	.0008392
%RSD	1.561773	.2655920	.6693932	5.816121	.0488897	.0208780	10.53782
#1	5.923350	4.145443	.5008074	.0069908	2.837925	5.094087	.0085497
#2	5.813695	4.133621	.4941653	.0073680	2.836495	5.096211	.0083393
#3	5.997178	4.155618	.4970826	.0065576	2.835152	5.095043	.0070024

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-15 Acquired: 1/23/2025 22:35:12 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.265742	.0328331	.1517399
Stddev	.003176	.0004624	.0018321
%RSD	.2509538	1.408409	1.207417
#1	1.266975	.0329472	.1533738
#2	1.262134	.0323243	.1497591
#3	1.268117	.0332278	.1520869

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3769.183	75645.40	10547.60	2652.971	4260.311
Stddev	.795	232.73	55.44	5.309	1.712
%RSD	.0210916	.3076612	.5255718	.2001266	.0401925
#1	3769.978	75417.69	10593.62	2649.769	4262.279
#2	3768.388	75882.85	10486.06	2659.100	4259.494
#3	3769.184	75635.65	10563.13	2650.045	4259.161

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-16 Acquired: 1/23/2025 22:39:08 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0822251	-.000684	.9333104	.0324716	.0167716	62.39942	2.126968
Stddev	.0016542	.001093	.0059315	.0019883	.0009460	.17894	.005732
%RSD	2.011846	159.6896	.6355358	6.123323	5.640490	.2867680	.2694990
#1	.0828222	-.001249	.9290574	.0314138	.0171450	62.25466	2.121249
#2	.0834980	-.001380	.9307875	.0312358	.0156959	62.59949	2.132713
#3	.0803553	.000575	.9400863	.0347652	.0174739	62.34411	2.126943

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096134	.0073283	30.69229	.1486860	.1544469	.1326295	180.0488
Stddev	.0001347	.0000725	.08460	.0004844	.0002038	.0017381	.2515
%RSD	1.400869	.9890075	.2756260	.3257906	.1319396	1.310527	.1396874
#1	.0097476	.0073950	30.60376	.1485616	.1546607	.1344572	179.8841
#2	.0096144	.0072512	30.70081	.1482758	.1544249	.1309974	180.3383
#3	.0094782	.0073388	30.77230	.1492204	.1542550	.1324340	179.9238

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.34748	16.32173	.1892257	.0029653	-.223598	.2893152	.9788713
Stddev	.02220	.02982	.0003809	.0001373	.417141	.0013095	.0054663
%RSD	.1446787	.1827248	.2012843	4.628459	186.5585	.4526227	.5584308
#1	15.32233	16.32531	.1892876	.0028069	-.066929	.2908250	.9730109
#2	15.36438	16.34960	.1888176	.0030392	-.696391	.2886335	.9797712
#3	15.35572	16.29028	.1895718	.0030496	.092526	.2884872	.9838318

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.310804	4.828143	.7502901	.0039859	2.002296	8.247174	.0090467
Stddev	.076563	.009333	.0020032	.0001920	.004471	.018792	.0004240
%RSD	1.047257	.1933049	.2669950	4.817173	.2232877	.2278593	4.686390
#1	7.299058	4.818473	.7496629	.0041613	1.999379	8.254727	.0088861
#2	7.392561	4.828858	.7525319	.0040157	2.007443	8.225781	.0087265
#3	7.240793	4.837098	.7486755	.0037807	2.000065	8.261014	.0095275

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-16 Acquired: 1/23/2025 22:39:08 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPJ9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.170193	.0247574	.0558808
Stddev	.001299	.0015619	.0001905
%RSD	.1109841	6.308798	.3409236
#1	1.171686	.0255816	.0557347
#2	1.169571	.0229561	.0560963
#3	1.169323	.0257346	.0558115

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4171.563	84007.24	11901.86	2952.255	4058.891
Stddev	6.900	55.89	38.21	8.546	7.770
%RSD	.1654053	.0665290	.3210051	.2894747	.1914346
#1	4176.071	83964.43	11858.54	2962.047	4067.635
#2	4163.619	83986.81	11930.74	2948.419	4052.778
#3	4174.998	84070.47	11916.29	2946.299	4056.260

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-17 Acquired: 1/23/2025 22:43:05 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0784999	-.001211	.6103845	.0333068	.0166667	53.86433	2.562815
Stddev	.0018761	.000145	.0026007	.0031488	.0013644	.31990	.014955
%RSD	2.389979	11.95342	.4260775	9.454003	8.186533	.5939033	.5835385
#1	.0769147	-.001089	.6120145	.0313473	.0177498	53.96274	2.570711
#2	.0780139	-.001371	.6073852	.0316342	.0171161	54.12347	2.572166
#3	.0805713	-.001173	.6117538	.0369390	.0151343	53.50679	2.545567

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078762	.0065647	24.57730	.1864955	.1417939	.1059931	171.8662
Stddev	.0000670	.0000364	.12852	.0001729	.0002435	.0025849	.8518
%RSD	.8499760	.5546645	.5229073	.0927085	.1717264	2.438769	.4956232
#1	.0078629	.0065238	24.64338	.1866875	.1416130	.1032163	172.2167
#2	.0078169	.0065766	24.65933	.1863521	.1420708	.1064335	172.4869
#3	.0079488	.0065936	24.42919	.1864469	.1416980	.1083296	170.8951

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.42226	15.53125	.1359668	.0017436	-.133831	.3090699	1.256162
Stddev	.03775	.08323	.0005596	.0002958	.149996	.0022496	.008736
%RSD	.3621822	.5358648	.4116061	16.96612	112.0781	.7278484	.6954400
#1	10.45076	15.59366	.1356253	.0018096	-.166905	.3075480	1.253724
#2	10.43657	15.56333	.1366127	.0020009	.029941	.3116538	1.248903
#3	10.37945	15.43676	.1356625	.0014204	-.264530	.3080078	1.265857

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.261616	2.163201	.7097532	.0048644	1.052766	8.976143	.0088135
Stddev	.062188	.005571	.0041818	.0000615	.007531	.003088	.0008545
%RSD	1.906670	.2575176	.5891909	1.263444	.7153673	.0343982	9.695587
#1	3.263813	2.157845	.7117891	.0047934	1.051382	8.976744	.0097810
#2	3.322676	2.168964	.7125272	.0049003	1.060893	8.978887	.0084971
#3	3.198358	2.162793	.7049433	.0048994	1.046022	8.972800	.0081622

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-17 Acquired: 1/23/2025 22:43:05 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.147777	.0164251	.0449788
Stddev	.000900	.0006291	.0001475
%RSD	.0784441	3.829880	.3279522
#1	1.147227	.0169186	.0450277
#2	1.147287	.0157168	.0450956
#3	1.148816	.0166401	.0448130

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4048.635	81684.64	11370.01	2874.818	4200.160
Stddev	3.243	305.56	35.30	10.260	5.292
%RSD	.0800992	.3740779	.3104859	.3568790	.1259946
#1	4046.438	81340.14	11347.82	2867.499	4197.828
#2	4052.359	81790.85	11410.71	2886.545	4206.217
#3	4047.107	81922.93	11351.48	2870.410	4196.434

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-18 Acquired: 1/23/2025 22:47:01 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0810919	-.000453	.6892599	.0339276	.0172525	59.39015	2.306606
Stddev	.0029430	.001615	.0013844	.0028999	.0013838	.42333	.020572
%RSD	3.629193	356.5438	.2008515	8.547209	8.020648	.7127879	.8918787
#1	.0786974	-.001360	.6907288	.0324065	.0184617	59.80520	2.327090
#2	.0843775	.001412	.6890717	.0321047	.0175526	58.95901	2.285947
#3	.0802008	-.001411	.6879793	.0372715	.0157434	59.40624	2.306781

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0073640	.0058801	24.99518	.2058367	.1713920	.1078236	178.8501
Stddev	.0000868	.0001097	.13719	.0006504	.0002049	.0013374	1.1211
%RSD	1.179406	1.864871	.5488497	.3159958	.1195795	1.240361	.6268438
#1	.0072655	.0058194	25.14104	.2053553	.1712609	.1090687	179.9868
#2	.0074297	.0058142	24.86874	.2065766	.1712869	.1064099	177.7452
#3	.0073967	.0060067	24.97578	.2055780	.1716282	.1079924	178.8181

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.99052	15.82218	.1092123	.0018834	-.225997	.3403978	1.551765
Stddev	.08054	.06446	.0007912	.0003518	.241709	.0019983	.018437
%RSD	.6717296	.4073720	.7244616	18.68013	106.9522	.5870423	1.188122
#1	12.07305	15.87207	.1083191	.0022785	-.135350	.3391543	1.572759
#2	11.91212	15.74941	.1098253	.0016042	-.042715	.3427028	1.538208
#3	11.98640	15.84507	.1094925	.0017674	-.499927	.3393362	1.544329

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.229170	3.554885	.7404720	.0073041	1.838442	8.238251	.0077586
Stddev	.063106	.005292	.0056546	.0001493	.005141	.009216	.0004756
%RSD	1.492150	.1488514	.7636483	2.043585	.2796219	.1118678	6.130268
#1	4.261706	3.550790	.7465977	.0071471	1.833001	8.244213	.0075927
#2	4.156436	3.560860	.7354519	.0073212	1.843217	8.227636	.0082950
#3	4.269368	3.553006	.7393663	.0074442	1.839107	8.242904	.0073882

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-18 Acquired: 1/23/2025 22:47:01 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.131719	.0212297	.0526389
Stddev	.002431	.0003256	.0005657
%RSD	.2147747	1.533778	1.074746
#1	1.134524	.0213833	.0532638
#2	1.130228	.0208557	.0521617
#3	1.130405	.0214501	.0524911

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3916.426	78285.07	10969.73	2763.798	4174.827
Stddev	3.210	141.35	73.40	17.701	1.484
%RSD	.0819617	.1805575	.6690726	.6404424	.0355416
#1	3913.529	78153.96	11019.88	2743.661	4174.357
#2	3919.877	78266.43	10885.49	2770.837	4176.489
#3	3915.872	78434.81	11003.82	2776.897	4173.635

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-19 Acquired: 1/23/2025 22:50:59 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0795637	-.000342	.6980234	.0358089	.0161373	64.72431	1.987376
Stddev	.0035197	.000854	.0014157	.0012997	.0000913	.40548	.012237
%RSD	4.423738	249.3820	.2028153	3.629437	.5657092	.6264662	.6157404
#1	.0809906	-.000326	.6966465	.0366437	.0160862	64.29962	1.973262
#2	.0755546	-.001204	.6979488	.0343115	.0160831	64.76594	1.993855
#3	.0821459	.000503	.6994749	.0364715	.0162427	65.10736	1.995012

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0076586	.0064093	35.34513	.1714221	.1360751	.1250538	176.3078
Stddev	.0000703	.0001312	.23352	.0006148	.0002850	.0014245	1.0039
%RSD	.9183879	2.046953	.6606833	.3586279	.2094248	1.139150	.5694121
#1	.0077265	.0063183	35.09755	.1709500	.1359119	.1264292	175.2416
#2	.0076634	.0063500	35.37642	.1721173	.1359093	.1251476	176.4468
#3	.0075860	.0065597	35.56143	.1711989	.1364042	.1235847	177.2350

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.16959	16.17667	.1467554	.0021549	-.110583	.2892186	1.092068
Stddev	.05621	.09065	.0003417	.0003519	.222646	.0021351	.007178
%RSD	.5032441	.5603586	.2328516	16.32915	201.3389	.7382307	.6572612
#1	11.10534	16.07760	.1464512	.0017486	-.055067	.2914603	1.084180
#2	11.19377	16.19695	.1471252	.0023637	.079053	.2872091	1.098216
#3	11.20967	16.25546	.1466898	.0023524	-.355734	.2889863	1.093808

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.135407	3.482296	.7336592	.0047247	1.683061	7.546652	.0081303
Stddev	.054088	.008048	.0051156	.0002080	.002922	.034242	.0010780
%RSD	1.053233	.2311091	.6972727	4.402575	.1736212	.4537433	13.25851
#1	5.073915	3.474573	.7279962	.0049597	1.680090	7.553808	.0081204
#2	5.175615	3.481682	.7350358	.0045643	1.683161	7.576751	.0092131
#3	5.156690	3.490634	.7379457	.0046500	1.685932	7.509397	.0070573

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-19 Acquired: 1/23/2025 22:50:59 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.053935	.0252596	.0953730
Stddev	.001059	.0001004	.0003171
%RSD	.1004823	.3974891	.3324739
#1	1.052773	.0253326	.0950279
#2	1.054847	.0253012	.0956514
#3	1.054184	.0251451	.0954399

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3999.642	80887.12	11429.64	2859.469	4109.492
Stddev	3.994	346.86	32.87	7.060	2.501
%RSD	.0998608	.4288154	.2876249	.2468877	.0608598
#1	4004.210	81178.20	11394.55	2866.156	4111.729
#2	3996.806	80979.84	11459.73	2852.088	4106.792
#3	3997.910	80503.33	11434.65	2860.162	4109.957

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-20 Acquired: 1/23/2025 22:54:55 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1137631	-.002293	1.069140	.0469318	.0225830	71.80857	4.543095
Stddev	.0015361	.001599	.002813	.0029090	.0025815	.15724	.024005
%RSD	1.350263	69.76142	.2630709	6.198422	11.43120	.2189644	.5283820
#1	.1154010	-.003253	1.067815	.0450912	.0250667	71.81858	4.569820
#2	.1135335	-.003178	1.067234	.0502855	.0227685	71.64658	4.536101
#3	.1123547	-.000446	1.072370	.0454186	.0199137	71.96057	4.523364

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0086666	.0108094	64.24504	.2447238	.2334109	.1395243	236.0306
Stddev	.0000920	.0000894	.22365	.0003772	.0007778	.0006790	.5617
%RSD	1.061911	.8274255	.3481138	.1541189	.3332097	.4866756	.2379623
#1	.0087721	.0108022	64.22561	.2447831	.2328541	.1391286	236.4450
#2	.0086030	.0107238	64.03174	.2450677	.2330790	.1391359	235.3914
#3	.0086247	.0109023	64.47777	.2443204	.2342995	.1403083	236.2555

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.97691	30.63539	.1589748	.0017211	.1182213	.4125882	2.893260
Stddev	.06191	.14033	.0002719	.0001611	.2138672	.0010319	.010143
%RSD	.4770934	.4580582	.1710138	9.357437	180.9040	.2500924	.3505784
#1	12.99532	30.70100	.1587113	.0015639	-.068610	.4123160	2.896654
#2	12.90788	30.47427	.1589587	.0017136	.071781	.4137288	2.881855
#3	13.02753	30.73089	.1592543	.0018858	.351493	.4117197	2.901271

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.542037	5.258648	.9809303	.0102221	3.010779	7.816096	.0154735
Stddev	.094596	.022651	.0042433	.0006861	.005564	.010381	.0005387
%RSD	1.706886	.4307307	.4325780	6.711472	.1848056	.1328191	3.481632
#1	5.640018	5.240650	.9842386	.0103568	3.006251	7.827170	.0157516
#2	5.451234	5.251212	.9761462	.0094787	3.016991	7.806585	.0148525
#3	5.534860	5.284081	.9824062	.0108308	3.009097	7.814532	.0158163

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-20 Acquired: 1/23/2025 22:54:55 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.204892	.0431332	.1373184
Stddev	.000441	.0003984	.0006520
%RSD	.0366037	.9237228	.4748176
#1	1.204878	.0435675	.1375707
#2	1.204458	.0430478	.1365779
#3	1.205340	.0427845	.1378065

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4091.673	81998.67	11744.45	2882.557	4036.543
Stddev	7.026	264.88	35.63	17.120	4.850
%RSD	.1717205	.3230237	.3034094	.5939299	.1201494
#1	4097.995	81710.06	11711.25	2862.818	4041.036
#2	4092.917	82230.65	11740.01	2893.373	4037.191
#3	4084.108	82055.29	11782.10	2891.479	4031.402

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-21 Acquired: 1/23/2025 22:58:59 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0723782	-.003469	.7044410	.0303867	.0145952	48.76898	2.706295
Stddev	.0016943	.003195	.0052259	.0004676	.0007989	.09442	.008994
%RSD	2.340843	92.10018	.7418466	1.538934	5.473952	.1935969	.3323419
#1	.0704279	-.006594	.7093543	.0306894	.0150457	48.86355	2.715313
#2	.0734866	-.000208	.6989505	.0298481	.0136727	48.67472	2.697325
#3	.0732201	-.003607	.7050183	.0306227	.0150671	48.76867	2.706247

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066937	.0068814	34.85791	.1645853	.1889554	.0984150	151.7517
Stddev	.0001314	.0001257	.07401	.0003101	.0008204	.0022145	.1939
%RSD	1.963524	1.827352	.2123300	.1883944	.4341631	2.250196	.1277592
#1	.0068448	.0069984	34.93732	.1647806	.1899019	.0999495	151.9649
#2	.0066299	.0068973	34.79085	.1647475	.1884493	.0994193	151.5859
#3	.0066063	.0067484	34.84555	.1642278	.1885149	.0958763	151.7045

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.14382	14.49471	.1073684	-.000310	.0602458	.2891451	1.708380
Stddev	.03428	.06317	.0008278	.000234	.4691474	.0004621	.011022
%RSD	.3075960	.4358452	.7709858	75.56594	778.7225	.1598111	.6451882
#1	11.17796	14.56108	.1082274	-.000489	-.100206	.2886814	1.716794
#2	11.10941	14.43531	.1065758	-.000397	-.307625	.2891484	1.695903
#3	11.14410	14.48774	.1073020	-.000045	.588568	.2896056	1.712444

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.470407	3.967857	.6240879	.0069873	2.117205	5.650681	.0088927
Stddev	.029785	.017458	.0018591	.0001056	.015000	.017061	.0008507
%RSD	.8582695	.4399761	.2978978	1.510652	.7084947	.3019254	9.566202
#1	3.496798	3.988012	.6261474	.0071010	2.131282	5.631053	.0079330
#2	3.438112	3.958130	.6225335	.0069682	2.101426	5.659035	.0091909
#3	3.476312	3.957430	.6235828	.0068925	2.118906	5.661955	.0095541

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1042-21 Acquired: 1/23/2025 22:58:59 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.035733**	**.0186448**	**.1048065**
Stddev	.001903	.0003533	.0003130
%RSD	.1837384	1.894683	.2986674
#1	1.034542	.0186218	.1051174
#2	1.037928	.0190090	.1044914
#3	1.034730	.0183036	.1048109

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3859.313**	**79020.50**	**10643.40**	**2749.916**	**4159.130**
Stddev	11.772	110.23	39.30	6.911	15.516
%RSD	.3050326	.1394946	.3692120	.2513015	.3730492
#1	3847.916	78898.96	10673.15	2744.554	4142.908
#2	3871.427	79114.00	10598.86	2757.715	4173.827
#3	3858.595	79048.53	10658.21	2747.480	4160.656

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-01 Acquired: 1/23/2025 23:02:57 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0969345	-.001930	.9405980	.0397826	.0195895	64.96615	3.833769
Stddev	.0017393	.002532	.0036136	.0007768	.0031822	.09726	.016698
%RSD	1.794275	131.1919	.3841831	1.952621	16.24448	.1497141	.4355538
#1	.0949474	-.002876	.9366488	.0404499	.0208215	64.94514	3.815402
#2	.0981805	.000939	.9414060	.0399680	.0219715	65.07220	3.837873
#3	.0976755	-.003854	.9437392	.0389299	.0159755	64.88111	3.848033

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078990	.0104068	38.07956	.2219308	.2690594	.1239752	194.4764
Stddev	.0001373	.0001033	.08373	.0003943	.0003952	.0016108	.3660
%RSD	1.738539	.9928459	.2198907	.1776729	.1468821	1.299274	.1881915
#1	.0079237	.0103822	38.02994	.2223514	.2692127	.1235282	194.3529
#2	.0077510	.0103180	38.17624	.2215696	.2686106	.1257623	194.8881
#3	.0080223	.0105202	38.03250	.2218713	.2693550	.1226352	194.1881

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.32226	24.10362	.1232275	.0025655	-.014505	.3793822	3.028110
Stddev	.01925	.08747	.0001017	.0005957	.222796	.0006850	.015136
%RSD	.1344006	.3628756	.0825055	23.22005	1535.996	.1805500	.4998520
#1	14.30016	24.17019	.1233191	.0021701	.193619	.3794320	3.027534
#2	14.33537	24.13611	.1232454	.0032507	.012396	.3800408	3.013270
#3	14.33125	24.00455	.1231181	.0022758	-.249530	.3786736	3.043525

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.343178	4.916153	.8087794	.0099347	2.880823	8.612462	.0103068
Stddev	.049359	.013984	.0020037	.0000602	.005686	.022930	.0007845
%RSD	.7781437	.2844520	.2477398	.6056000	.1973608	.2662401	7.611761
#1	6.286201	4.903469	.8080579	.0099263	2.876018	8.593497	.0096354
#2	6.372890	4.913840	.8110438	.0098792	2.879351	8.605944	.0111692
#3	6.370444	4.931149	.8072363	.0099986	2.887100	8.637946	.0101159

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-01 Acquired: 1/23/2025 23:02:57 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.314990	.0270189	.0763115
Stddev	.003542	.0006893	.0001956
%RSD	.2693260	2.551255	.2563239
#1	1.310961	.0265630	.0760857
#2	1.316396	.0266818	.0764236
#3	1.317613	.0278119	.0764253

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3855.762	77797.78	10885.94	2732.877	4097.418
Stddev	5.692	249.98	42.46	4.128	7.412
%RSD	.1476123	.3213198	.3900893	.1510631	.1809002
#1	3855.890	77576.21	10837.40	2728.574	4097.696
#2	3861.388	77748.35	10904.22	2736.805	4104.688
#3	3850.008	78068.79	10916.21	2733.251	4089.871

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-02 Acquired: 1/23/2025 23:06:52 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0843201	.0007174	.7694905	.0330073	.0172789	62.74380	2.459803
Stddev	.0032256	.0008628	.0022975	.0023287	.0010955	.41830	.018089
%RSD	3.825435	120.2763	.2985717	7.055057	6.340132	.6666775	.7353796
#1	.0821592	.0009645	.7670208	.0338887	.0182364	63.06565	2.470593
#2	.0827734	-.000242	.7698863	.0347667	.0175162	62.89477	2.469897
#3	.0880279	.001430	.7715644	.0303666	.0160842	62.27097	2.438920

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096539	.0077794	39.95651	.1548807	.1540310	.1430575	184.0577
Stddev	.0000607	.0000343	.31097	.0004663	.0004557	.0008550	1.2196
%RSD	.6290165	.4406212	.7782711	.3010461	.2958617	.5976252	.6626337
#1	.0097136	.0077959	40.22702	.1554038	.1544974	.1421936	184.9531
#2	.0096558	.0078022	40.02576	.1545089	.1540087	.1430755	184.5514
#3	.0095922	.0077400	39.61675	.1547294	.1535868	.1439032	182.6686

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.13089	22.01301	.1847256	.0028000	-.193008	.2976671	1.616016
Stddev	.09785	.10355	.0010337	.0003468	.044750	.0010122	.012655
%RSD	.6924482	.4703888	.5595573	12.38481	23.18532	.3400266	.7830848
#1	14.20135	22.12458	.1836154	.0029922	-.189557	.2978565	1.619096
#2	14.17215	21.99443	.1849012	.0030082	-.239383	.2965736	1.626846
#3	14.01917	21.92000	.1856603	.0023997	-.150084	.2985711	1.602105

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.953816	3.833858	.7670436	.0035850	1.641665	7.903108	.0089350
Stddev	.037568	.010371	.0061284	.0002956	.004039	.008325	.0009404
%RSD	.6309904	.2705091	.7989600	8.245403	.2460306	.1053334	10.52523
#1	5.965063	3.822314	.7717321	.0039258	1.637150	7.899381	.0094566
#2	5.984476	3.842389	.7692897	.0033988	1.644934	7.912645	.0094991
#3	5.911909	3.836870	.7601091	.0034303	1.642911	7.897298	.0078494

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-02 Acquired: 1/23/2025 23:06:52 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.019135	.0228676	.0596739
Stddev	.002379	.0010935	.0004843
%RSD	.2334428	4.781917	.8115930
#1	1.016465	.0219768	.0599805
#2	1.021032	.0240880	.0599257
#3	1.019907	.0225380	.0591156

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4140.153	83446.07	11823.39	2941.853	4079.037
Stddev	6.485	369.10	43.25	14.172	3.638
%RSD	.1566274	.4423269	.3657987	.4817417	.0891758
#1	4133.002	83092.16	11845.95	2936.678	4075.606
#2	4145.651	83417.35	11850.69	2930.995	4078.655
#3	4141.806	83828.69	11773.52	2957.885	4082.851

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-03 Acquired: 1/23/2025 23:10:49 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0894771	-.001131	.5610761	.0343995	.0163032	70.97974	2.417998
Stddev	.0014064	.001107	.0019194	.0042636	.0006556	.26584	.014520
%RSD	1.571783	97.87910	.3420968	12.39433	4.021133	.3745257	.6004782
#1	.0910300	-.000219	.5631464	.0330169	.0162517	70.98193	2.418157
#2	.0891119	-.002363	.5593558	.0309987	.0169830	71.24448	2.432438
#3	.0882893	-.000811	.5607261	.0391828	.0156749	70.71282	2.403400

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058985	.0048930	14.66288	.1849147	.1427132	.0798424	173.3352
Stddev	.0001037	.0000937	.06445	.0001401	.0008255	.0004790	.5526
%RSD	1.758619	1.914770	.4395394	.0757675	.5784201	.5999842	.3187800
#1	.0059017	.0049792	14.71261	.1850371	.1431780	.0801116	173.3275
#2	.0057932	.0047933	14.68597	.1849452	.1417601	.0801263	173.8916
#3	.0060006	.0049065	14.59007	.1847619	.1432014	.0792893	172.7865

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.789987	12.55456	.0945022	.0014644	.1663917	.3286832	.4796792
Stddev	.034064	.07510	.0002252	.0001657	.1226352	.0015673	.0009975
%RSD	.5016777	.5981652	.2383422	11.31441	73.70270	.4768492	.2079573
#1	6.802847	12.58876	.0942656	.0014457	.2439383	.3273523	.4807982
#2	6.815749	12.60647	.0947140	.0013089	.2302307	.3282866	.4788831
#3	6.751365	12.46845	.0945270	.0016387	.0250061	.3304107	.4793563

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.285186	2.128353	.7125191	.0079062	1.540206	8.473901	.0093037
Stddev	.018781	.006050	.0031501	.0002382	.008498	.009738	.0010794
%RSD	.5716971	.2842577	.4421080	3.013448	.5517210	.1149211	11.60173
#1	3.287218	2.131155	.7130178	.0081585	1.543519	8.481704	.0090079
#2	3.265472	2.121410	.7153901	.0078750	1.530551	8.462988	.0105001
#3	3.302869	2.132494	.7091494	.0076851	1.546548	8.477013	.0084030

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-03 Acquired: 1/23/2025 23:10:49 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.352036	.0366981	.0731345
Stddev	.003317	.0010240	.0002754
%RSD	.2452993	2.790222	.3766004
#1	1.348394	.0367503	.0731262
#2	1.352831	.0376950	.0734140
#3	1.354883	.0356491	.0728634

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3842.946	78193.81	10696.97	2708.907	4237.801
Stddev	6.750	129.75	26.39	9.847	9.656
%RSD	.1756495	.1659280	.2466940	.3635032	.2278506
#1	3835.976	78063.34	10685.15	2698.745	4226.695
#2	3843.411	78195.25	10727.21	2709.571	4242.499
#3	3849.452	78322.82	10678.57	2718.405	4244.208

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-04 Acquired: 1/23/2025 23:14:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1288691**	**-.002144**	**.5888283**	**.0457031**	**.0210249**	**85.39140**
Stddev	.0042838	.002714	.0042517	.0039453	.0008675	.68184
%RSD	3.324122	126.6232	.7220563	8.632492	4.125900	.7984935
#1	.1255017	-.003237	.5918880	.0442399	.0200237	84.75664
#2	.1274148	-.004141	.5839735	.0501710	.0214984	86.11217
#3	.1336906	.000947	.5906235	.0426984	.0215525	85.30539

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.367897**	**.0114356**	**.0097828**	**21.76038**	**.2750438**	**.1530312**
Stddev	.011971	.0000914	.0002958	.14265	.0007335	.0012661
%RSD	.8751187	.7991396	3.023467	.6555490	.2666819	.8273344
#1	1.359796	.0113967	.0098321	21.61873	.2746488	.1530647
#2	1.381647	.0113701	.0094655	21.90400	.2758902	.1517487
#3	1.362248	.0115400	.0100508	21.75841	.2745925	.1542802

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1597659**	**234.7994**	**9.617016**	**15.59422**	**.2259899**	**-.000922**
Stddev	.0015654	1.8065	.056114	.11032	.0014103	.000703
%RSD	.9798057	.7693941	.5834836	.7074503	.6240389	76.18415
#1	.1590839	232.9885	9.572779	15.47944	.2267950	-.001346
#2	.1615566	236.6015	9.680136	15.69947	.2243615	-.000111
#3	.1586572	234.8084	9.598134	15.60376	.2268132	-.001310

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5579102**	**.3730518**	**1.694665**	**6.008373**	**2.402755**	**.9576473**
Stddev	.3836599	.0009976	.010880	.087912	.016076	.0102363
%RSD	68.76733	.2674246	.6420213	1.463151	.6690635	1.068901
#1	.1257986	.3720205	1.687491	5.929167	2.409974	.9472230
#2	.6893808	.3740119	1.707184	6.102960	2.384335	.9676846
#3	.8585510	.3731230	1.689320	5.992992	2.413957	.9580343

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-04 Acquired: 1/23/2025 23:14:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031161	.5749766	F 11.09909	.0099704	1.037389	.0321215
Stddev	.0002649	.0114580	.01586	.0005223	.002456	.0004393
%RSD	8.501368	1.992781	.1428903	5.238038	.2367009	1.367623
#1	.0030194	.5809572	11.10525	.0101862	1.035117	.0322715
#2	.0034158	.5617657	11.08108	.0093748	1.039994	.0324661
#3	.0029132	.5822069	11.11095	.0103501	1.037055	.0316268

Elem	Sr4077
Units	ppm
Avg	.0747790
Stddev	.0004900
%RSD	.6552090
#1	.0744099
#2	.0753349
#3	.0745922

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4031.546	81033.15	11065.09	2842.473	4114.237
Stddev	9.990	75.28	67.04	12.655	17.291
%RSD	.2477935	.0928997	.6058698	.4452039	.4202730
#1	4028.608	81084.58	11021.13	2840.803	4109.178
#2	4042.675	81068.13	11142.25	2830.735	4133.494
#3	4023.354	80946.75	11031.89	2855.879	4100.040

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-05 Acquired: 1/23/2025 23:18:43 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1143428	-.002385	.6660858	.0420701	.0239210	67.76745	1.377982
Stddev	.0014184	.000719	.0028456	.0028940	.0025341	.23287	.007213
%RSD	1.240459	30.15412	.4272068	6.878965	10.59367	.3436256	.5234564
#1	.1159426	-.001679	.6659297	.0399163	.0260274	67.49956	1.370024
#2	.1138468	-.003116	.6633214	.0409342	.0211088	67.92142	1.384089
#3	.1132391	-.002360	.6690061	.0453597	.0246268	67.88138	1.379834

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054669	.0065217	13.47319	.2776518	.1079310	.0938347	227.2626
Stddev	.0001294	.0000708	.03282	.0004474	.0003179	.0032285	.8531
%RSD	2.366249	1.086008	.2436084	.1611259	.2944939	3.440593	.3754012
#1	.0055731	.0066014	13.43609	.2775756	.1082947	.0903359	226.5201
#2	.0055048	.0064660	13.49843	.2781323	.1077916	.0966985	228.1945
#3	.0053228	.0064976	13.48505	.2772474	.1077066	.0944695	227.0730

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.846656	9.626398	.1311486	.0020171	.1729688	.3596339	.9373721
Stddev	.025334	.044371	.0003707	.0001652	.1815626	.0028891	.0072145
%RSD	.3700182	.4609313	.2826698	8.187509	104.9685	.8033485	.7696520
#1	6.821341	9.613797	.1315493	.0020739	.0605997	.3570334	.9338553
#2	6.872009	9.675707	.1310788	.0021463	.0758729	.3627438	.9456706
#3	6.846619	9.589690	.1308177	.0018310	.3824337	.3591244	.9325904

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.510232	2.283630	.9373170	.0059675	1.216412	8.754683	.0103670
Stddev	.053666	.008274	.0052091	.0002948	.005056	.029918	.0011062
%RSD	1.528842	.3623368	.5557433	4.940696	.4156589	.3417326	10.67018
#1	3.449856	2.286975	.9320812	.0057759	1.213518	8.761147	.0116308
#2	3.552507	2.274207	.9424989	.0058197	1.213468	8.780840	.0095749
#3	3.528332	2.289709	.9373711	.0063070	1.222250	8.722061	.0098952

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-05 Acquired: 1/23/2025 23:18:43 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPK9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.432435**	**.0286891**	**.0554415**
Stddev	.005341	.0018222	.0002984
%RSD	.3728703	6.351679	.5381540
#1	1.426702	.0272696	.0551009
#2	1.437270	.0280538	.0556563
#3	1.433334	.0307440	.0555675

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3729.634**	**76530.58**	**10648.65**	**2703.592**	**4103.102**
Stddev	4.090	116.66	41.00	9.219	4.362
%RSD	.1096749	.1524364	.3850234	.3409847	.1063211
#1	3728.913	76437.46	10609.10	2703.120	4102.353
#2	3734.038	76492.84	10645.89	2694.618	4107.791
#3	3725.953	76661.44	10690.96	2713.038	4099.163

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-06 Acquired: 1/23/2025 23:22:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0812549**	**-.000867**	**.5761335**	**.0311816**	**.0161036**	**51.93641**	**1.355702**
Stddev	.0007192	.000321	.0026227	.0016415	.0014704	.17540	.004970
%RSD	.8851710	37.03071	.4552242	5.264180	9.131096	.3377204	.3665969
#1	.0814822	-.000793	.5789015	.0309489	.0146744	52.13778	1.361206
#2	.0804495	-.000589	.5736855	.0329270	.0176120	51.81691	1.354357
#3	.0818331	-.001218	.5758137	.0296689	.0160244	51.85456	1.351543

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043433**	**.0044624**	**15.42890**	**.2398971**	**.0853006**	**.2925553**	**154.9497**
Stddev	.0000245	.0000660	.06034	.0007770	.0000762	.0016256	.3461
%RSD	.5637384	1.479903	.3910752	.3238798	.0893518	.5556667	.2233850
#1	.0043617	.0044778	15.49670	.2407656	.0852899	.2910715	155.3457
#2	.0043155	.0043900	15.40891	.2396574	.0853816	.2942929	154.7045
#3	.0043526	.0045193	15.38109	.2392682	.0852302	.2923014	154.7990

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.412616**	**9.339717**	**.0746380**	**.0007310**	**1.214016**	**.2929681**	**.5035017**
Stddev	.009379	.029890	.0001113	.0004139	.216625	.0026281	.0034037
%RSD	.1732735	.3200334	.1490639	56.62251	17.84365	.8970579	.6760053
#1	5.422963	9.307837	.0746899	.0002556	1.463208	.2911491	.5069864
#2	5.404674	9.367109	.0747138	.0010109	1.108227	.2959812	.5001852
#3	5.410211	9.344206	.0745103	.0009267	1.070612	.2917739	.5033336

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.488747**	**1.850934**	**.6405628**	**.0062866**	**3.247818**	**7.629749**	**.0075426**
Stddev	.047240	.003607	.0013593	.0001237	.005301	.008117	.0011445
%RSD	1.898138	.1948661	.2122039	1.967622	.1632192	.1063867	15.17427
#1	2.435489	1.849207	.6420966	.0063076	3.253716	7.621284	.0079798
#2	2.505161	1.855079	.6400845	.0061538	3.243452	7.637466	.0062439
#3	2.525590	1.848514	.6395072	.0063985	3.246284	7.630496	.0084042

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-06 Acquired: 1/23/2025 23:22:41 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.240869	.0210749	.0561060
Stddev	.000370	.0011009	.0000888
%RSD	.0297939	5.223887	.1582576
#1	1.240503	.0211092	.0561038
#2	1.241242	.0221583	.0560184
#3	1.240863	.0199572	.0561959

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3768.300	76227.84	10482.47	2671.427	4254.286
Stddev	7.447	132.14	21.81	4.589	10.532
%RSD	.1976234	.1733535	.2080729	.1717891	.2475584
#1	3761.607	76103.91	10505.51	2666.131	4244.565
#2	3776.322	76212.71	10462.14	2673.904	4265.474
#3	3766.972	76366.90	10479.77	2674.245	4252.818

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-07 Acquired: 1/23/2025 23:26:38 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1416746**	**-.006992**	**.8288841**	**.0233924**	**.0252040**	**39.28607**
Stddev	.0011622	.001251	.0044265	.0064603	.0031175	.12853
%RSD	.8203107	17.88868	.5340358	27.61719	12.36916	.3271698
#1	.1423419	-.006681	.8324783	.0292745	.0233564	39.31576
#2	.1423492	-.008369	.8302342	.0164781	.0234522	39.14530
#3	.1403326	-.005926	.8239397	.0244245	.0288033	39.39717

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.49711**	**.0024784**	**.0151660**	F **1257.212**	**.0968919**	**.0804014**
Stddev	.18601	.0001519	.0001137	7.949	.0005309	.0003159
%RSD	1.283085	6.129813	.7499891	.6322612	.5478974	.3929205
#1	14.28328	.0026519	.0152892	1248.198	.0965976	.0807576
#2	14.62154	.0023694	.0151441	1263.219	.0965734	.0802917
#3	14.58651	.0024138	.0150649	1260.218	.0975048	.0801550

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2392921**	**207.3037**	**4.487126**	**720.9969**	**.1527917**	**-.001096**
Stddev	.0020282	.5541	.021578	.4862	.0003361	.000463
%RSD	.8475687	.2672950	.4808805	.0674339	.2199870	42.22505
#1	.2369890	207.5307	4.487134	720.8841	.1528963	-.000918
#2	.2400759	206.6721	4.465545	720.5771	.1524157	-.001622
#3	.2408115	207.7083	4.508700	721.5296	.1530631	-.000749

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.673647**	**.2363133**	**2.630449**	**2.038109**	**2.590195**	**.8754954**
Stddev	.461933	.0010700	.015593	.046128	.008226	.0039883
%RSD	68.57195	.4527866	.5928061	2.263260	.3175639	.4555493
#1	-.941495	.2362341	2.617879	2.074009	2.598931	.8784760
#2	-.939191	.2352852	2.625569	2.054236	2.589057	.8709648
#3	-.140254	.2374207	2.647899	1.986083	2.582598	.8770455

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-07 Acquired: 1/23/2025 23:26:38 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028565	5.239326	7.110695	.0021232	.8995803	.0473437
Stddev	.0003350	.019008	.025846	.0011715	.0010007	.0004538
%RSD	11.72635	.3627863	.3634799	55.17540	.1112349	.9585521
#1	.0025586	5.255668	7.108353	.0009380	.9005837	.0474269
#2	.0032191	5.218467	7.137632	.0021513	.8985824	.0477502
#3	.0027919	5.243844	7.086099	.0032804	.8995749	.0468541

Elem	Sr4077
Units	ppm
Avg	.5534499
Stddev	.0035716
%RSD	.6453319
#1	.5543579
#2	.5495120
#3	.5564798

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3052.056	62235.17	9472.965	2142.174	3184.321
Stddev	2.053	135.16	66.148	8.395	4.189
%RSD	.0672653	.2171744	.6982781	.3918816	.1315396
#1	3052.145	62382.80	9503.522	2148.796	3180.466
#2	3049.960	62117.50	9397.063	2144.995	3183.718
#3	3054.063	62205.21	9518.310	2132.733	3188.778

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-08 Acquired: 1/23/2025 23:30:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0706779	.0015558	.4318362	.0263542	.0145180	55.40715	1.457352
Stddev	.0018655	.0010236	.0020541	.0014004	.0008895	.18793	.010939
%RSD	2.639380	65.79560	.4756730	5.313937	6.126986	.3391801	.7506143
#1	.0698473	.0024877	.4318060	.0279652	.0151607	55.45313	1.462254
#2	.0693721	.0017195	.4339053	.0254270	.0148906	55.20050	1.444819
#3	.0728144	.0004602	.4297973	.0256705	.0135028	55.56783	1.464983

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035802	.0036586	15.56208	.1547923	.0678647	.0536505	136.0576
Stddev	.0001140	.0000188	.04474	.0001341	.0002761	.0011978	.3216
%RSD	3.184953	.5148037	.2874925	.0866231	.4068656	2.232544	.2363512
#1	.0035863	.0036633	15.52548	.1547782	.0675588	.0544850	136.0885
#2	.0034632	.0036747	15.54881	.1546658	.0679397	.0541885	135.7216
#3	.0036910	.0036379	15.61196	.1549329	.0680956	.0522781	136.3626

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.726812	9.852745	.0638580	.0007510	-.270320	.2566859	.3530243
Stddev	.023411	.004002	.0003382	.0001136	.171618	.0023510	.0039039
%RSD	.6281794	.0406163	.5296350	15.11905	63.48687	.9158850	1.105850
#1	3.734544	9.853598	.0640457	.0007440	-.185149	.2545954	.3574014
#2	3.700512	9.856251	.0634676	.0006412	-.467864	.2562314	.3499022
#3	3.745378	9.848385	.0640607	.0008680	-.157947	.2592309	.3517694

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.185583	1.704188	.5629620	.0056488	1.192571	8.854323	.0151202
Stddev	.018307	.007429	.0008485	.0005655	.005852	.043018	.0005498
%RSD	.8376459	.4359430	.1507216	10.01023	.4907349	.4858451	3.636007
#1	2.164493	1.706137	.5630874	.0052351	1.198432	8.839720	.0145424
#2	2.197382	1.695978	.5620578	.0054182	1.186727	8.820506	.0151812
#3	2.194872	1.710448	.5637408	.0062931	1.192553	8.902741	.0156369

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-08 Acquired: 1/23/2025 23:30:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.201636	.0257124	.0633211
Stddev	.004532	.0006361	.0005546
%RSD	.3771175	2.474048	.8758444
#1	1.198619	.0257869	.0636263
#2	1.199442	.0250423	.0626810
#3	1.206847	.0263081	.0636561

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3731.625	75411.52	10449.76	2653.477	4240.508
Stddev	5.755	84.35	50.45	7.672	12.108
%RSD	.1542329	.1118530	.4828016	.2891222	.2855311
#1	3727.878	75506.86	10501.48	2650.993	4240.858
#2	3738.252	75346.60	10400.67	2662.083	4252.438
#3	3728.745	75381.09	10447.12	2647.355	4228.229

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-09 Acquired: 1/23/2025 23:34:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL2D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0730813	.0004849	.4402588	.0309104	.0134313	56.54918	1.500094
Stddev	.0029941	.0010428	.0014179	.0025626	.0009285	.04492	.000948
%RSD	4.096965	215.0722	.3220592	8.290349	6.913020	.0794357	.0631639
#1	.0746957	.0016890	.4403900	.0280217	.0131146	56.52847	1.499249
#2	.0749216	-.000127	.4416066	.0317993	.0127025	56.51835	1.499913
#3	.0696264	-.000107	.4387799	.0329102	.0144767	56.60072	1.501118

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036235	.0037714	15.85000	.1558606	.0693992	.0573786	138.6853
Stddev	.0000865	.0000260	.00776	.0012684	.0001219	.0015067	.1607
%RSD	2.387673	.6894383	.0489327	.8138109	.1756048	2.625825	.1158532
#1	.0035352	.0037895	15.85569	.1573145	.0695018	.0585800	138.7861
#2	.0036272	.0037416	15.84117	.1549806	.0694315	.0556882	138.5000
#3	.0037081	.0037832	15.85316	.1552867	.0692645	.0578677	138.7697

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.828994	10.04152	.0655347	.0011350	-.247522	.2634749	.3564779
Stddev	.004651	.01592	.0003552	.0002216	.471716	.0022446	.0023662
%RSD	.1214675	.1585078	.5420367	19.52089	190.5756	.8519094	.6637776
#1	3.824360	10.05089	.0659158	.0012250	.107220	.2657335	.3566611
#2	3.828959	10.05053	.0652128	.0008826	-.782851	.2634465	.3587472
#3	3.833662	10.02314	.0654754	.0012974	-.066934	.2612447	.3540255

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.294887	1.756050	.5761573	.0055762	1.227202	9.048185	.0095957
Stddev	.023635	.009181	.0006670	.0003415	.002876	.011974	.0002688
%RSD	1.029905	.5228132	.1157588	6.124776	.2343713	.1323383	2.801139
#1	2.267622	1.762856	.5758306	.0051825	1.227731	9.053614	.0098917
#2	2.309571	1.759685	.5757167	.0057933	1.224098	9.056484	.0095283
#3	2.307467	1.745608	.5769246	.0057528	1.229777	9.034458	.0093670

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-09 Acquired: 1/23/2025 23:34:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL2D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.224802	.0279619	.0651888
Stddev	.003019	.0013741	.0000787
%RSD	.2464799	4.914293	.1207325
#1	1.223338	.0264214	.0652118
#2	1.228274	.0284029	.0652534
#3	1.222794	.0290614	.0651011

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3667.415	74791.43	10421.65	2648.115	4160.429
Stddev	4.744	173.42	41.41	8.675	7.647
%RSD	.1293657	.2318720	.3973047	.3276062	.1838148
#1	3667.267	74680.61	10404.12	2648.297	4152.745
#2	3672.232	74702.39	10391.90	2639.350	4168.040
#3	3662.746	74991.28	10468.94	2656.698	4160.501

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-08LX5 Acquired: 1/23/2025 23:38:47 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL2L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0113639	.0001527	.0841760	.0075883	.0035855	10.56071	.2670996
Stddev	.0004319	.0007870	.0005253	.0016092	.0005213	.08211	.0010369
%RSD	3.800270	515.5371	.6240845	21.20702	14.53834	.7775388	.3882161
#1	.0112233	-.000482	.0847591	.0070194	.0037207	10.62636	.2682601
#2	.0110199	.001033	.0840291	.0094047	.0040259	10.46864	.2662642
#3	.0118486	-.000093	.0837397	.0063407	.0030100	10.58714	.2667745

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008240	.0006272	2.982533	.0313261	.0131320	.0104983	26.26487
Stddev	.0000050	.0000426	.016491	.0003061	.0002173	.0007336	.16185
%RSD	.6003586	6.788412	.5529094	.9772802	1.655049	6.987893	.6162197
#1	.0008241	.0005996	2.990287	.0316625	.0130563	.0113441	26.33949
#2	.0008289	.0006058	2.963594	.0312519	.0129627	.0100341	26.07917
#3	.0008190	.0006762	2.993717	.0310639	.0133771	.0101168	26.37595

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7192461	1.898755	.0123747	-.000654	.0309936	.0539976	.0691154
Stddev	.0016261	.010785	.0004203	.000077	.0823695	.0013766	.0020151
%RSD	.2260863	.5679949	3.396490	11.79502	265.7630	2.549428	2.915507
#1	.7206685	1.904567	.0120794	-.000666	-.053359	.0526544	.0679087
#2	.7174734	1.886311	.0121888	-.000724	.111225	.0539329	.0679959
#3	.7195965	1.905387	.0128559	-.000572	.035114	.0554054	.0714417

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1542515	.3337050	.1065711	.0006421	.2327149	1.774765	.0008588
Stddev	.0291637	.0006018	.0005109	.0001791	.0040776	.006015	.0001661
%RSD	18.90659	.1803356	.4794237	27.88810	1.752167	.3389193	19.34306
#1	.1212775	.3330457	.1069844	.0007518	.2310271	1.768801	.0009144
#2	.1766593	.3338445	.1059998	.0004354	.2297523	1.780830	.0009900
#3	.1648178	.3342248	.1067289	.0007389	.2373654	1.774663	.0006720

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-08LX5 Acquired: 1/23/2025 23:38:47 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL2L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2380067	-.000295	.0120762
Stddev	.0012527	.002167	.0000225
%RSD	.5263333	734.7633	.1863882
#1	.2369233	-.002180	.0120824
#2	.2393784	-.000778	.0120512
#3	.2377185	.002073	.0120949

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3684.611	75905.77	9973.729	2630.360	4443.682
Stddev	1.423	134.57	53.557	6.753	6.744
%RSD	.0386197	.1772817	.5369780	.2567416	.1517650
#1	3683.334	75814.64	10020.43	2637.899	4438.911
#2	3686.145	76060.33	9915.27	2624.865	4451.397
#3	3684.354	75842.35	9985.49	2628.315	4440.736

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-10 Acquired: 1/23/2025 23:42:52 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL2S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1354270**	**.1010941**	**.4700080**	**.1863164**	**.1739716**	**58.43537**	**4.875392**
Stddev	.0006141	.0006528	.0021827	.0041237	.0028225	.12107	.029539
%RSD	.4534831	.6456992	.4644007	2.213253	1.622393	.2071778	.6058743
#1	.1359909	.1010991	.4678812	.1905011	.1735374	58.52554	4.884578
#2	.1355174	.1017443	.4699001	.1861917	.1769861	58.29777	4.899246
#3	.1347726	.1004388	.4722426	.1822566	.1713914	58.48280	4.842352

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0963792**	**.0996769**	**15.55158**	**.5692493**	**1.018741**	**.5260330**	**137.4834**
Stddev	.0000838	.0002558	.03184	.0008590	.001314	.0032254	.2176
%RSD	.0868961	.2566685	.2047083	.1508915	.1290058	.6131454	.1582428
#1	.0963874	.0993815	15.53508	.5687906	1.017492	.5263471	137.5208
#2	.0964585	.0998214	15.53138	.5687170	1.018620	.5226621	137.2495
#3	.0962916	.0998278	15.58827	.5702402	1.020112	.5290898	137.6798

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.583701**	**9.766869**	**1.023357**	**.0701289**	**.1308258**	**1.223284**	**1.220775**
Stddev	.017965	.000859	.001132	.0002994	.5815360	.004637	.006080
%RSD	.3919304	.0087984	.1105742	.4269130	444.5117	.3790628	.4980153
#1	4.574695	9.767531	1.022291	.0703329	.3693476	1.223054	1.217145
#2	4.572021	9.765898	1.023237	.0697852	-.532048	1.228032	1.217386
#3	4.604387	9.767179	1.024545	.0702686	.555177	1.218767	1.227794

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.243968**	**1.695906**	**.5689616**	**.0052493**	**1.186182**	**8.879379**	**.0122831**
Stddev	.052508	.005750	.0013364	.0004692	.002819	.032479	.0003844
%RSD	2.339945	.3390272	.2348842	8.937647	.2376261	.3657795	3.129937
#1	2.206261	1.689268	.5688395	.0047417	1.183050	8.848188	.0118813
#2	2.221704	1.699145	.5676904	.0053390	1.188516	8.876939	.0123204
#3	2.303939	1.699306	.5703548	.0056670	1.186981	8.913008	.0126475

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-10 Acquired: 1/23/2025 23:42:52 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL2S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.201548	.0258909	.0630317
Stddev	.002969	.0012698	.0002196
%RSD	.2470781	4.904406	.3483127
#1	1.198301	.0245394	.0628441
#2	1.202216	.0270591	.0629779
#3	1.204125	.0260743	.0632732

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3749.068	75734.55	10423.19	2647.948	4281.490
Stddev	6.576	127.04	19.35	10.839	5.464
%RSD	.1753996	.1677412	.1856515	.4093374	.1276308
#1	3743.845	75758.77	10445.53	2658.113	4275.182
#2	3746.906	75847.73	10411.58	2649.188	4284.748
#3	3756.453	75597.14	10412.46	2636.542	4284.541

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-11 Acquired: 1/23/2025 23:46:54 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0348372	-.000588	.4139639	.0182667	.0090445	40.88342	1.302205
Stddev	.0005245	.000952	.0020675	.0025436	.0006189	.20005	.006972
%RSD	1.505507	161.8057	.4994384	13.92484	6.842284	.4893089	.5353654
#1	.0354400	.000065	.4162918	.0212009	.0088547	40.70772	1.297415
#2	.0345862	-.000150	.4132581	.0169140	.0097360	40.84140	1.298998
#3	.0344853	-.001680	.4123416	.0166853	.0085427	41.10114	1.310203

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032147	.0104469	12.54570	.0927328	.0773183	.0370077	87.72597
Stddev	.0001653	.0000077	.03879	.0002553	.0003010	.0016722	.40527
%RSD	5.140528	.0736807	.3091930	.2752767	.3892713	4.518595	.4619709
#1	.0033118	.0104553	12.54249	.0927373	.0772774	.0368865	87.40612
#2	.0030239	.0104403	12.50862	.0929858	.0776377	.0353993	87.59008
#3	.0033084	.0104451	12.58600	.0924753	.0770399	.0387372	88.18172

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.371749	8.912707	.0657087	.0008842	.1859546	.1567436	.5366108
Stddev	.018288	.020395	.0004152	.0001948	.4174352	.0015246	.0028702
%RSD	.4183180	.2288327	.6318372	22.03024	224.4824	.9726909	.5348659
#1	4.354994	8.895464	.0659699	.0006697	.3296322	.1549957	.5392096
#2	4.368996	8.907437	.0659262	.0009326	-.284343	.1574359	.5335302
#3	4.391257	8.935220	.0652299	.0010502	.512575	.1577993	.5370925

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.188506	1.926023	.3664554	.0035090	1.512546	6.133807	.0051253
Stddev	.051994	.001822	.0026852	.0001188	.005890	.018830	.0001455
%RSD	2.375783	.0945838	.7327520	3.385547	.3893951	.3069946	2.838231
#1	2.169264	1.925018	.3647124	.0036391	1.519085	6.117690	.0050818
#2	2.148876	1.924926	.3651060	.0034818	1.507658	6.154505	.0050065
#3	2.247379	1.928126	.3695476	.0034062	1.510894	6.129226	.0052875

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-11 Acquired: 1/23/2025 23:46:54 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9920198	.0222258	.0492794
Stddev	.0026454	.0007175	.0003504
%RSD	.2666707	3.228082	.7110176
#1	.9907321	.0221001	.0489826
#2	.9950625	.0215795	.0491897
#3	.9902648	.0229978	.0496660

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3801.752	75661.06	10523.71	2644.943	4379.432
Stddev	10.027	167.21	38.05	5.574	5.687
%RSD	.2637555	.2209928	.3616064	.2107542	.1298641
#1	3803.922	75628.47	10501.90	2645.881	4380.944
#2	3810.517	75842.16	10501.57	2649.988	4384.212
#3	3790.818	75512.54	10567.65	2638.958	4373.142

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-12 Acquired: 1/23/2025 23:50:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1102005**	**.0013830**	**2.271121**	**.0357956**	**.0207314**	**66.69778**	**7.788087**
Stddev	.0049833	.0032614	.004250	.0053457	.0011070	.08224	.037592
%RSD	4.522071	235.8225	.1871281	14.93399	5.339489	.1232983	.4826921
#1	.1138418	.0004162	2.271766	.0311748	.0219311	66.60374	7.747598
#2	.1122385	.0050186	2.266586	.0345616	.0197495	66.73337	7.794778
#3	.1045212	-.001286	2.275012	.0416504	.0205138	66.75622	7.821885

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034661**	**.0153220**	**426.5141**	**.2929685**	**.0624544**	**.1352389**	**194.8778**
Stddev	.0000812	.0000768	2.3927	.0008810	.0003661	.0016570	.5282
%RSD	2.342242	.5014625	.5609852	.3007136	.5862510	1.225212	.2710574
#1	.0033997	.0153151	424.3420	.2924207	.0623845	.1368612	194.2692
#2	.0035566	.0152489	426.1216	.2939847	.0628504	.1335493	195.1463
#3	.0034420	.0154021	429.0788	.2925000	.0621282	.1353062	195.2178

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.794666**	**233.4557**	**.1042451**	**.0009415**	**.2997203**	**.3450099**	**3.152830**
Stddev	.007017	.7369	.0008362	.0003613	.2369102	.0027147	.016505
%RSD	.2510902	.3156390	.8021606	38.37172	79.04376	.7868369	.5235098
#1	2.790251	232.6097	.1035725	.0008177	.0594598	.3469658	3.133773
#2	2.802757	233.8001	.1039815	.0006584	.3065694	.3461533	3.162574
#3	2.790990	233.9573	.1051814	.0013483	.5331317	.3419105	3.162143

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.804660**	**2.113013**	**.8304006**	**.0083831**	**8.369863**	**8.762426**	**.0055831**
Stddev	.024575	.006471	.0040294	.0005690	.040906	.020251	.0007986
%RSD	.8762261	.3062313	.4852348	6.787704	.4887260	.2311170	14.30400
#1	2.828246	2.115173	.8257643	.0082509	8.372222	8.758506	.0064150
#2	2.806531	2.105739	.8323798	.0090066	8.327828	8.784351	.0048225
#3	2.779202	2.118127	.8330576	.0078919	8.409538	8.744421	.0055119

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-12 Acquired: 1/23/2025 23:50:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.311773	.0431222	.2992296
Stddev	.004579	.0014724	.0003794
%RSD	.3490641	3.414455	.1267870
#1	1.311596	.0439095	.2990366
#2	1.316437	.0414235	.2996667
#3	1.307285	.0440336	.2989856

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3335.699	68014.51	9987.688	2355.218	3604.322
Stddev	7.758	126.80	21.317	6.864	9.753
%RSD	.2325759	.1864328	.2134313	.2914346	.2705840
#1	3336.525	68155.13	9980.209	2363.049	3605.775
#2	3343.011	67979.53	9971.117	2352.358	3613.267
#3	3327.561	67908.88	10011.74	2350.247	3593.925

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV008 Acquired: 1/23/2025 23:55:04 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV008 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.677619**	**4.719535**	**23.92195**	**4.621993**	**4.692126**	**372.8592**
Stddev	.015826	.026811	.02611	.009250	.005374	1.5851
%RSD	.3383257	.5680885	.1091326	.2001344	.1145256	.4251197
#1	4.670551	4.694985	23.89533	4.612999	4.686679	373.8032
#2	4.666560	4.748144	23.92302	4.631479	4.692275	371.0292
#3	4.695747	4.715476	23.94751	4.621500	4.697424	373.7452

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.418947**	**.4970835**	**2.439821**	**375.4147**	**15.29210**	**2.415741**
Stddev	.053159	.0010202	.005165	2.8916	.04134	.001369
%RSD	.5643817	.2052344	.2116784	.7702391	.2703439	.0566855
#1	9.476808	.4982251	2.434128	372.4565	15.33398	2.414763
#2	9.372271	.4967642	2.441129	375.5528	15.29099	2.415155
#3	9.407761	.4962611	2.444206	378.2347	15.25132	2.417306

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.06638**	**386.1046**	**14.11296**	**378.2255**	**2.415568**	**1.248769**
Stddev	.08104	1.4202	.07157	1.5151	.003088	.003207
%RSD	.5761427	.3678232	.5071403	.4005698	.1278233	.2568399
#1	14.14715	385.7462	14.13744	377.8634	2.413413	1.250458
#2	14.06691	387.6696	14.16909	379.8888	2.414186	1.250779
#3	13.98507	384.8979	14.03236	376.9243	2.419105	1.245070

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**367.4498**	**2.402732**	**14.47126**	**143.6355**	**4.997318**	F **5.841543**
Stddev	2.6024	.008658	.06087	.4083	.013735	.012411
%RSD	.7082438	.3603557	.4206577	.2842276	.2748392	.2124692
#1	370.0259	2.408054	14.48997	143.5772	4.983189	5.852536
#2	367.5017	2.407402	14.52058	144.0698	4.998143	5.844010
#3	364.8218	2.392742	14.40323	143.2596	5.010622	5.828084

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV008 Acquired: 1/23/2025 23:55:04 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV008 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.695273**	**4.869945**	**4.768906**	**4.924553**	**4.747992**	**4.572482**
Stddev	.006547	.006571	.028222	.002034	.021644	.024393
%RSD	.1394363	.1349262	.5917965	.0413063	.4558636	.5334790
#1	4.690184	4.876096	4.797078	4.924914	4.769613	4.584221
#2	4.692977	4.870716	4.769005	4.922362	4.748038	4.588785
#3	4.702659	4.863022	4.740634	4.926382	4.726324	4.544438

Elem	Sr4077
Units	ppm
Avg	**4.754198**
Stddev	.125634
%RSD	2.642595
#1	4.877038
#2	4.759613
#3	4.625945

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2905.236**	**61360.67**	**9155.402**	**2131.734**	**3302.446**
Stddev	4.044	107.66	44.006	4.425	3.183
%RSD	.1392099	.1754557	.4806580	.2075576	.0963952
#1	2908.837	61237.02	9112.640	2130.797	3306.122
#2	2906.011	61433.60	9200.555	2136.552	3300.564
#3	2900.860	61411.40	9153.010	2127.852	3300.653

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB008 Acquired: 1/23/2025 23:59:22 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB008 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003388	.0015487	-.001695	.0018290	-.000123	-.002566	-.000587
Stddev	.0024395	.0011901	.001111	.0019467	.000618	.005263	.000627
%RSD	720.1006	76.84080	65.56681	106.4376	501.7633	205.1208	106.8212
#1	.0030224	.0001984	-.001187	.0035526	-.000104	-.007515	-.000437
#2	-.001745	.0020033	-.002970	-.000282	-.000750	-.003147	-.000049
#3	-.000262	.0024445	-.000929	.002217	.000485	.002964	-.001276

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000620	-.000013	.0082445	.0006888	-.000027	.0003581	.0102157
Stddev	.0000488	.000035	.0086189	.0002833	.000109	.0007811	.0019229
%RSD	78.81327	271.8154	104.5412	41.13377	395.8686	218.0846	18.82327
#1	.0001135	.000022	.0148015	.0009769	-.000151	.0004612	.0119384
#2	.0000560	-.000012	.0114499	.0006791	.000051	.0010826	.0081411
#3	.0000164	-.000049	-.001518	.0004105	.000018	-.000469	.0105674

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003660	.0247808	-.000019	-.000625	-.078533	.0006888	-.000393
Stddev	.0000295	.0106079	.000490	.000096	.420721	.0014239	.001613
%RSD	8.072186	42.80682	2538.109	15.42493	535.7275	206.7276	409.8467
#1	.0003638	.0186679	-.000271	-.000517	.120817	.0017089	.001379
#2	.0003965	.0186448	.000546	-.000703	.205460	-.000938	-.000786
#3	.0003376	.0370297	-.000333	-.000657	-.561875	.001295	-.001774

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.193663	.0045376	.0033286	-.000044	.0028677	.0063398	-.000090
Stddev	.044927	.0004905	.0003672	.000141	.0013150	.0024848	.000300
%RSD	23.19831	10.80901	11.03255	322.1404	45.85532	39.19441	333.7853
#1	-.239691	.0039798	.0037473	-.000179	.0042270	.0090700	-.000414
#2	-.149926	.0049011	.0030610	-.000055	.0027740	.0057386	-.000033
#3	-.191373	.0047320	.0031775	.000102	.0016021	.0042107	.000178

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB008 Acquired: 1/23/2025 23:59:22 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB008 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.000504**	**-.004726**	**.0000844**
Stddev	.000317	.000725	.0000483
%RSD	62.98207	15.33706	57.31481
#1	-.000179	-.003895	.0000586
#2	-.000518	-.005063	.0000543
#3	-.000814	-.005222	.0001401

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3640.989**	**73471.85**	**9857.002**	**2585.987**	**4516.968**
Stddev	7.995	74.08	46.122	10.102	9.829
%RSD	.2195782	.1008261	.4679122	.3906383	.2176065
#1	3633.974	73463.50	9906.200	2581.111	4507.902
#2	3649.694	73402.30	9814.742	2597.603	4527.415
#3	3639.301	73549.75	9850.065	2579.249	4515.588

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-13 Acquired: 1/24/2025 0:03:31 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1362301**	**-.000559**	**.8185961**	**.0461220**	**.0261962**	**59.98100**	**1.618478**
Stddev	.0030189	.001749	.0012191	.0018698	.0014680	.14707	.006554
%RSD	2.216015	312.8719	.1489193	4.053946	5.603767	.2451999	.4049759
#1	.1336964	-.001465	.8198714	.0443078	.0246027	59.94006	1.618641
#2	.1354236	.001457	.8184743	.0480427	.0264924	60.14421	1.624950
#3	.1395704	-.001669	.8174425	.0460156	.0274934	59.85873	1.611844

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0051407**	**.0070702**	**14.01586**	**.3878810**	**.1153780**	**.1336153**	**246.9769**
Stddev	.0001477	.0000858	.05134	.0006888	.0005672	.0010313	.0886
%RSD	2.873394	1.213473	.3662951	.1775871	.4916363	.7718404	.0358783
#1	.0050088	.0069876	14.07363	.3885691	.1147345	.1342058	247.0720
#2	.0051130	.0070640	13.99847	.3871915	.1155938	.1342156	246.9622
#3	.0053003	.0071589	13.97547	.3878823	.1158057	.1324245	246.8966

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.533655**	**9.050679**	**.1170697**	**.0012452**	**-.070262**	**.4422883**	**1.074096**
Stddev	.013363	.013695	.0005452	.0001287	.310331	.0028159	.003733
%RSD	.2045240	.1513186	.4657157	10.33149	441.6777	.6366601	.3475183
#1	6.547607	9.051805	.1164406	.0011674	-.270744	.4454721	1.075203
#2	6.532386	9.036455	.1173621	.0013937	-.227236	.4412681	1.069935
#3	6.520972	9.063776	.1174063	.0011745	.287196	.4401248	1.077149

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.324178**	**2.229497**	**1.014734**	**.0084482**	**1.601296**	**8.815797**	**.0115935**
Stddev	.026574	.011030	.000844	.0002683	.002905	.036827	.0003128
%RSD	1.143385	.4947272	.0832018	3.175872	.1814231	.4177436	2.698069
#1	2.307828	2.218010	1.015708	.0081450	1.603568	8.858322	.0117236
#2	2.354841	2.230475	1.014248	.0086549	1.598022	8.794498	.0118203
#3	2.309866	2.240005	1.014244	.0085448	1.602297	8.794572	.0112367

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-13 Acquired: 1/24/2025 0:03:31 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.592099	.0241135	.0621755
Stddev	.004167	.0002963	.0001925
%RSD	.2617437	1.228623	.3095564
#1	1.596864	.0239352	.0623635
#2	1.590300	.0239498	.0621841
#3	1.589134	.0244555	.0619788

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3688.925	77323.32	10509.25	2679.138	4107.026
Stddev	3.634	192.54	36.82	7.904	3.103
%RSD	.0984999	.2490034	.3504034	.2950213	.0755434
#1	3688.078	77144.18	10467.11	2670.147	4108.211
#2	3692.907	77298.87	10535.28	2684.993	4109.362
#3	3685.790	77526.92	10525.35	2682.273	4103.506

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-14 Acquired: 1/24/2025 0:07:28 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0670306	-.000396	.4998301	.0285637	.0147951	69.79884	1.611834
Stddev	.0026838	.000654	.0016472	.0010661	.0011196	.10330	.009181
%RSD	4.003824	165.3872	.3295491	3.732328	7.567547	.1479928	.5696298
#1	.0687929	-.001041	.5016201	.0273329	.0153573	69.88177	1.622146
#2	.0639419	-.000412	.4983783	.0291623	.0155222	69.83161	1.608810
#3	.0683571	.000267	.4994918	.0291960	.0135058	69.68313	1.604545

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041701	.0045842	12.95067	.1875205	.0825240	.0566364	152.7337
Stddev	.0000966	.0000638	.00926	.0005713	.0002913	.0012055	.1570
%RSD	2.316976	1.391687	.0715093	.3046531	.3529840	2.128526	.1028247
#1	.0041864	.0045617	12.95736	.1868799	.0821986	.0579374	152.9028
#2	.0040664	.0045347	12.94010	.1879771	.0826131	.0555571	152.7060
#3	.0042575	.0046562	12.95456	.1877044	.0827604	.0564149	152.5924

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.683817	10.55210	.0810476	.0013187	-.000628	.2792476	.4852490
Stddev	.014467	.03957	.0002823	.0002205	.023269	.0024736	.0067315
%RSD	.3088784	.3750078	.3483237	16.72422	3708.180	.8858002	1.387233
#1	4.700279	10.59178	.0807910	.0010935	-.022955	.2811120	.4915393
#2	4.678046	10.51264	.0813500	.0013282	-.002409	.2764415	.4860583
#3	4.673126	10.55188	.0810018	.0015342	.023481	.2801894	.4781494

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.303129	2.518911	.6364938	.0059258	1.730830	8.586151	.0079023
Stddev	.035873	.009848	.0023604	.0000581	.005927	.017144	.0009942
%RSD	1.086041	.3909720	.3708500	.9809565	.3424228	.1996728	12.58072
#1	3.308784	2.521811	.6386899	.0059800	1.737434	8.588604	.0088233
#2	3.335839	2.507938	.6367937	.0059330	1.725974	8.601936	.0080352
#3	3.264764	2.526984	.6339977	.0058644	1.729081	8.567912	.0068484

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-14 Acquired: 1/24/2025 0:07:28 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.260782	.0390312	.0719110
Stddev	.006635	.0003928	.0004582
%RSD	.5262628	1.006299	.6371086
#1	1.267144	.0394555	.0723811
#2	1.261298	.0386803	.0718860
#3	1.253904	.0389579	.0714658

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3794.659	76187.96	10668.30	2678.795	4234.178
Stddev	6.251	134.20	29.44	27.138	5.225
%RSD	.1647252	.1761425	.2759413	1.013072	.1233987
#1	3788.356	76315.45	10702.17	2676.789	4231.043
#2	3800.856	76047.93	10653.75	2652.716	4240.209
#3	3794.764	76200.51	10648.96	2706.881	4231.280

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-15 Acquired: 1/24/2025 0:11:25 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.744256**	**1.517050**	**2.641935**	**2.960693**	**.8888514**	**40.38103**
Stddev	.016654	.012077	.007691	.003651	.0060823	.25217
%RSD	.6068742	.7961033	.2911075	.1233257	.6842839	.6244652
#1	2.728352	1.514202	2.637025	2.957442	.8861299	40.09170
#2	2.742845	1.506651	2.637982	2.964643	.8846052	40.49734
#3	2.761571	1.530297	2.650798	2.959993	.8958193	40.55404

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.611648**	F **1.963380**	**1.129662**	**60.43791**	**2.855565**	**1.855951**
Stddev	.024070	.013589	.003186	.28566	.003255	.006039
%RSD	.6664585	.6921117	.2820184	.4726449	.1139732	.3253829
#1	3.583961	1.979009	1.127899	60.11088	2.859268	1.852702
#2	3.623383	1.956771	1.127747	60.56421	2.853161	1.852233
#3	3.627600	1.954360	1.133339	60.63865	2.854265	1.862919

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.377354**	**67.94400**	**2.983035**	**16.53462**	**4.043186**	**.9059382**
Stddev	.005707	.37476	.012921	.06997	.011817	.0001133
%RSD	.2400509	.5515735	.4331394	.4231515	.2922599	.0125018
#1	2.383943	67.51589	2.968152	16.45717	4.035452	.9058709
#2	2.374117	68.10336	2.991372	16.55344	4.037319	.9060690
#3	2.374001	68.21274	2.989582	16.59326	4.056788	.9058748

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.071934**	**2.094846**	**2.793728**	**17.76555**	**2.608633**	**1.897657**
Stddev	.206693	.001711	.006562	.11810	.015433	.011102
%RSD	5.076047	.0816844	.2348885	.6647559	.5916029	.5850356
#1	4.305908	2.096733	2.786387	17.64744	2.600476	1.910454
#2	3.914153	2.093395	2.795774	17.88363	2.598991	1.891920
#3	3.995742	2.094411	2.799024	17.76559	2.626433	1.890598

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1043-15 Acquired: 1/24/2025 0:11:25 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPL7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.108233**	**.5101568**	**9.080298**	**1.195500**	**1.587428**	**1.035006**
Stddev	.002665	.0038800	.038583	.005054	.005780	.007546
%RSD	.2405007	.7605545	.4249081	.4227772	.3640981	.7290344
#1	1.106939	.5112458	9.122720	1.189974	1.591860	1.026614
#2	1.106462	.5058486	9.070875	1.196638	1.589533	1.037173
#3	1.111298	.5133759	9.047300	1.199889	1.580891	1.041231

Elem	Sr4077
Units	ppm
Avg	**.9867887**
Stddev	.0055513
%RSD	.5625658
#1	.9803875
#2	.9896960
#3	.9902825

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3719.363**	**76462.06**	**10796.89**	**2664.292**	**4053.180**
Stddev	12.564	83.58	85.27	4.158	17.185
%RSD	.3378010	.1093043	.7897942	.1560598	.4239989
#1	3731.275	76490.53	10698.68	2664.897	4066.541
#2	3720.579	76527.67	10839.86	2659.864	4059.206
#3	3706.236	76367.96	10852.14	2668.114	4033.793

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-01 Acquired: 1/24/2025 0:15:11 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPX8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0640526	-.000260	.3667004	.0296743	.0136319	59.42243	3.068786
Stddev	.0031201	.000604	.0010761	.0010573	.0008056	.12430	.014152
%RSD	4.871194	232.3000	.2934579	3.562923	5.909720	.2091867	.4611673
#1	.0637651	-.000513	.3662865	.0284819	.0144974	59.52821	3.078405
#2	.0610861	-.000696	.3679220	.0300437	.0129038	59.45357	3.075418
#3	.0673065	.000429	.3658926	.0304973	.0134945	59.28552	3.052536

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052424	.0037276	11.96345	.1473899	.1351078	.0651809	135.1053
Stddev	.0000450	.0000682	.02846	.0002607	.0004477	.0026051	.2833
%RSD	.8579169	1.829063	.2378906	.1768429	.3313688	3.996716	.2097219
#1	.0052313	.0037264	11.94170	.1471131	.1345929	.0670581	135.0776
#2	.0052919	.0037963	11.99566	.1474260	.1354047	.0622067	135.4015
#3	.0052040	.0036599	11.95299	.1476306	.1353259	.0662778	134.8369

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.886432	10.80184	.0790543	.0010770	-.152952	.2480972	.3581068
Stddev	.031051	.05493	.0003104	.0005057	.251993	.0007682	.0025409
%RSD	.4509062	.5085219	.3926735	46.95546	164.7529	.3096371	.7095316
#1	6.881561	10.76572	.0791390	.0007039	-.394750	.2476259	.3599190
#2	6.919631	10.86505	.0793135	.0016525	-.172233	.2489836	.3591990
#3	6.858104	10.77473	.0787103	.0008745	.108127	.2476819	.3552024

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.685819	2.268301	.5606255	.0076483	1.912918	8.107434	.0076563
Stddev	.017578	.001033	.0023948	.0001610	.000516	.021864	.0004805
%RSD	.4769101	.0455338	.4271700	2.104752	.0269716	.2696730	6.275864
#1	3.665534	2.267219	.5623013	.0078146	1.912940	8.122963	.0073986
#2	3.696581	2.268407	.5616926	.0074933	1.912392	8.116908	.0082106
#3	3.695342	2.269277	.5578827	.0076369	1.913423	8.082431	.0073595

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-01 Acquired: 1/24/2025 0:15:11 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPX8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.336539	.0308397	.0880177
Stddev	.003645	.0009817	.0004959
%RSD	.2727338	3.183279	.5633618
#1	1.338077	.0309804	.0884532
#2	1.339164	.0317435	.0881218
#3	1.332377	.0297952	.0874780

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3781.464	78295.59	10729.96	2709.072	4161.615
Stddev	2.412	288.24	30.81	7.341	6.749
%RSD	.0637827	.3681379	.2871060	.2709753	.1621728
#1	3778.748	78553.63	10765.52	2703.165	4169.408
#2	3783.359	77984.52	10711.39	2706.762	4157.650
#3	3782.283	78348.60	10712.98	2717.291	4157.787

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-02 Acquired: 1/24/2025 0:19:09 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPX9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0510704**	**-.001285**	**.4250871**	**.0258743**	**.0115250**	**48.81642**	**3.221988**
Stddev	.0009757	.003124	.0018337	.0014519	.0017621	.08887	.009323
%RSD	1.910500	243.1244	.4313731	5.611201	15.28969	.1820495	.2893586
#1	.0502295	-.000789	.4229896	.0265288	.0095997	48.91904	3.232336
#2	.0508415	-.004627	.4258846	.0242104	.0119176	48.76445	3.219383
#3	.0521402	.001562	.4263870	.0268837	.0130578	48.76578	3.214244

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049454**	**.0032962**	**8.207777**	**.1205666**	**.1710263**	**.0489298**	**117.3693**
Stddev	.0000822	.0001311	.022568	.0000966	.0006011	.0006073	.3343
%RSD	1.662156	3.976149	.2749597	.0801353	.3514788	1.241226	.2848041
#1	.0048959	.0034459	8.207220	.1206781	.1706354	.0496010	117.7529
#2	.0050403	.0032406	8.230619	.1205106	.1717185	.0484181	117.2143
#3	.0049000	.0032021	8.185493	.1205110	.1707250	.0487703	117.1406

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.603667**	**7.208320**	**.0693466**	**.0017923**	**.0700252**	**.2265326**	**.3693277**
Stddev	.026063	.011256	.0001142	.0003755	.3542397	.0008660	.0053331
%RSD	.2713821	.1561506	.1646882	20.95019	505.8744	.3822975	1.444007
#1	9.633198	7.206335	.0694477	.0018525	.4488113	.2275316	.3692889
#2	9.593919	7.198188	.0692227	.0013904	-.253071	.2260716	.3640141
#3	9.583883	7.220435	.0693693	.0021342	.014336	.2259945	.3746801

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.728469**	**2.140604**	**.4889797**	**.0064472**	**1.843415**	**6.206075**	**.0087615**
Stddev	.046913	.003690	.0018232	.0003131	.004063	.001153	.0006564
%RSD	1.258238	.1723921	.3728504	4.856521	.2204249	.0185845	7.491902
#1	3.745046	2.139452	.4910548	.0068076	1.839095	6.204745	.0092856
#2	3.675517	2.144732	.4882494	.0062422	1.847161	6.206795	.0089737
#3	3.764842	2.137626	.4876349	.0062918	1.843989	6.206685	.0080253

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-02 Acquired: 1/24/2025 0:19:09 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPX9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.197090	.0272456	.0780833
Stddev	.001975	.0016006	.0002747
%RSD	.1649447	5.874865	.3518287
#1	1.199066	.0289717	.0784002
#2	1.197086	.0269548	.0779370
#3	1.195117	.0258103	.0779126

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3821.927	76237.25	10623.23	2674.010	4332.162
Stddev	6.710	236.98	27.47	6.804	5.476
%RSD	.1755657	.3108431	.2585876	.2544629	.1264121
#1	3820.451	75979.01	10634.29	2673.546	4332.183
#2	3829.253	76444.76	10643.44	2681.035	4337.627
#3	3816.079	76287.98	10591.95	2667.450	4326.675

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-03 Acquired: 1/24/2025 0:23:06 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPX9D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0574232	-.000495	.4311342	.0225983	.0129752	48.56918	3.163467
Stddev	.0024807	.002593	.0029905	.0013877	.0005636	.26440	.026152
%RSD	4.319999	524.0621	.6936271	6.140501	4.343480	.5443856	.8266784
#1	.0582838	-.002559	.4327671	.0237163	.0133697	48.54200	3.166060
#2	.0593590	-.001340	.4329528	.0210453	.0132262	48.84612	3.188225
#3	.0546268	.002415	.4276828	.0230334	.0123297	48.31941	3.136115

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049572	.0034418	8.114504	.1210258	.1729069	.0525231	116.6800
Stddev	.0000331	.0000309	.055166	.0006780	.0001438	.0022546	.5361
%RSD	.6673220	.8973589	.6798425	.5602114	.0831467	4.292565	.4594538
#1	.0049742	.0034772	8.101167	.1213445	.1728417	.0525966	116.5630
#2	.0049784	.0034276	8.175116	.1214858	.1728073	.0502327	117.2650
#3	.0049191	.0034205	8.067230	.1202472	.1730717	.0547401	116.2121

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.455006	7.187097	.0702930	.0016299	-.179407	.2252236	.3645125
Stddev	.064817	.032442	.0001003	.0001819	.184110	.0007193	.0051293
%RSD	.6855265	.4513883	.1427069	11.16237	102.6214	.3193639	1.407154
#1	9.455002	7.160406	.0704031	.0016309	-.306781	.2251642	.3620242
#2	9.519824	7.223205	.0702692	.0018113	-.263125	.2245358	.3704113
#3	9.390191	7.177678	.0702068	.0014474	.031685	.2259707	.3611021

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.714498	2.192666	.4843656	.0063387	1.890841	6.242468	.0091485
Stddev	.050714	.010763	.0035357	.0000516	.009907	.004264	.0006057
%RSD	1.365289	.4908513	.7299668	.8134926	.5239597	.0683070	6.620257
#1	3.730753	2.191158	.4829085	.0063782	1.902205	6.247158	.0096301
#2	3.755091	2.204103	.4883970	.0062803	1.884021	6.238824	.0093469
#3	3.657649	2.182737	.4817912	.0063575	1.886296	6.241421	.0084685

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-03 Acquired: 1/24/2025 0:23:06 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPX9D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.192609	.0267986	.0765929
Stddev	.003824	.0011491	.0005402
%RSD	.3206123	4.288042	.7053405
#1	1.188307	.0273571	.0766667
#2	1.193898	.0275617	.0770925
#3	1.195621	.0254770	.0760196

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3752.442	76194.32	10522.12	2656.052	4231.800
Stddev	5.275	364.61	32.54	32.020	8.088
%RSD	.1405797	.4785261	.3092491	1.205546	.1911316
#1	3749.350	75990.29	10494.04	2634.078	4230.417
#2	3749.444	75977.40	10557.78	2641.287	4224.493
#3	3758.533	76615.27	10514.55	2692.790	4240.491

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-02LX5 Acquired: 1/24/2025 0:27:04 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPX9L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0107511**	**.0006387**	**.0852424**	**.0060342**	**.0018648**	**9.646394**	**.6124182**
Stddev	.0021526	.0005185	.0006249	.0004565	.0016559	.014334	.0015635
%RSD	20.02170	81.18215	.7330859	7.565735	88.79761	.1485903	.2553025
#1	.0084653	.0002843	.0854403	.0065604	.0035574	9.637996	.6115087
#2	.0127394	.0012337	.0845426	.0057424	.0002483	9.638242	.6142236
#3	.0110486	.0003979	.0857445	.0058000	.0017886	9.662945	.6115223

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010471**	**.0005877**	**1.619799**	**.0247947**	**.0339456**	**.0086459**	**23.50744**
Stddev	.0000442	.0000751	.003628	.0004389	.0000633	.0008216	.04518
%RSD	4.224114	12.78532	.2239929	1.770031	.1863844	9.502976	.1921785
#1	.0010802	.0006022	1.623989	.0252171	.0339189	.0095237	23.51960
#2	.0010642	.0005063	1.617669	.0243411	.0340179	.0085186	23.45743
#3	.0009969	.0006545	1.617740	.0248260	.0339001	.0078953	23.54530

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.887393**	**1.456878**	**.0136582**	**-.000352**	**-.210437**	**.0471812**	**.0731527**
Stddev	.004564	.015494	.0002304	.000338	.250649	.0004224	.0003600
%RSD	.2418195	1.063511	1.687004	95.96024	119.1087	.8952167	.4920600
#1	1.882415	1.467292	.0138904	-.000256	.054718	.0475177	.0727491
#2	1.891380	1.439072	.0136547	-.000728	-.443486	.0467072	.0734406
#3	1.888384	1.464269	.0134296	-.000073	-.242543	.0473187	.0732684

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4971620**	**.4413999**	**.0969783**	**.0009781**	**.3775423**	**1.304038**	**.0018983**
Stddev	.0288999	.0020574	.0004206	.0001180	.0067698	.003260	.0005049
%RSD	5.812974	.4661125	.4337081	12.06706	1.793126	.2500198	26.59887
#1	.4637913	.4433258	.0973353	.0009990	.3850795	1.301525	.0013952
#2	.5138564	.4416416	.0965146	.0008511	.3755690	1.307722	.0024051
#3	.5138383	.4392323	.0970849	.0010843	.3719784	1.302868	.0018947

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-02LX5 Acquired: 1/24/2025 0:27:04 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPX9L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2444199	.0011554	.0153978
Stddev	.0013711	.0007067	.0000382
%RSD	.5609612	61.16401	.2481441
#1	.2434852	.0003469	.0153540
#2	.2459939	.0016555	.0154153
#3	.2437805	.0014639	.0154242

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3648.732	74996.05	10025.84	2608.957	4383.953
Stddev	5.422	128.74	27.30	6.014	2.304
%RSD	.1485885	.1716639	.2722867	.2304952	.0525623
#1	3653.428	74900.59	10006.64	2603.328	4385.363
#2	3649.968	74945.10	10013.79	2608.250	4385.203
#3	3642.799	75142.47	10057.09	2615.292	4381.294

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-04 Acquired: 1/24/2025 0:31:08 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPX9S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1226451**	**.1030629**	**.4633578**	**.1870020**	**.1751180**	**52.12059**	**6.774254**
Stddev	.0043851	.0008273	.0017519	.0007061	.0007233	.12766	.108179
%RSD	3.575457	.8027162	.3780880	.3775978	.4130660	.2449262	1.596915
#1	.1199239	.1038643	.4620524	.1863683	.1758923	52.07440	6.701706
#2	.1203077	.1031125	.4626722	.1868745	.1750022	52.02245	6.898593
#3	.1277038	.1022119	.4653488	.1877632	.1744596	52.26491	6.722465

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0989910**	**.1017342**	**8.141433**	**.5435136**	**1.148761**	**.5303223**	**119.2526**
Stddev	.0004538	.0001945	.031346	.0005496	.000600	.0057108	.1848
%RSD	.4584586	.1911504	.3850209	.1011215	.0522450	1.076858	.1549708
#1	.0989150	.1015330	8.118369	.5428831	1.149394	.5364141	119.1905
#2	.0994780	.1017484	8.128807	.5437661	1.148200	.5294631	119.1068
#3	.0985800	.1019211	8.177124	.5438916	1.148688	.5250898	119.4604

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.49622**	**7.208623**	**1.057934**	**.0726408**	**-.151277**	**1.219202**	**1.262075**
Stddev	.05114	.009540	.000795	.0001931	.242319	.000827	.008519
%RSD	.4871771	.1323365	.0751405	.2658126	160.1827	.0678489	.6750201
#1	10.48126	7.217870	1.057105	.0725890	-.249045	1.218253	1.254020
#2	10.45423	7.198816	1.058007	.0728545	-.329438	1.219580	1.261212
#3	10.55316	7.209184	1.058690	.0724789	.124653	1.219772	1.270993

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.743663**	**2.155821**	**.4996113**	**.0057750**	**1.853243**	**6.261704**	**.0089732**
Stddev	.051710	.001215	.0010507	.0004211	.009257	.007737	.0006614
%RSD	1.381264	.0563612	.2102965	7.291732	.4995173	.1235683	7.370984
#1	3.707342	2.155051	.4988231	.0057109	1.843127	6.261056	.0084800
#2	3.802866	2.157222	.4992067	.0053896	1.861292	6.269745	.0087148
#3	3.720781	2.155191	.5008041	.0062245	1.855311	6.254310	.0097248

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-04 Acquired: 1/24/2025 0:31:08 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPX9S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.189157	.0283295	.0777487
Stddev	.002346	.0005696	.0004161
%RSD	.1973140	2.010728	.5351615
#1	1.188219	.0276802	.0777515
#2	1.187425	.0287453	.0773312
#3	1.191828	.0285629	.0781633

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3770.925	75524.19	10594.27	2654.795	4261.569
Stddev	8.305	148.93	14.60	9.212	1.271
%RSD	.2202456	.1971934	.1378342	.3469979	.0298278
#1	3768.446	75566.26	10592.19	2663.581	4262.908
#2	3780.188	75647.55	10580.82	2645.209	4260.379
#3	3764.142	75358.75	10609.80	2655.595	4261.420

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-05 Acquired: 1/24/2025 0:35:09 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0758404**	**-.000862**	**.4245164**	**.0319312**	**.0137545**	**61.31698**	**4.293189**
Stddev	.0011377	.000343	.0014968	.0014599	.0016819	.39176	.026777
%RSD	1.500175	39.82050	.3525837	4.571955	12.22795	.6389055	.6237076
#1	.0758846	-.001105	.4238843	.0302729	.0154657	61.74303	4.319020
#2	.0769554	-.000469	.4234394	.0324985	.0136941	61.23563	4.294989
#3	.0746812	-.001011	.4262256	.0330224	.0121036	60.97229	4.265557

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062247**	**.0037513**	**11.36100**	**.1956447**	**.1837114**	**.0481445**	**148.1713**
Stddev	.0000255	.0000824	.08576	.0009208	.0004842	.0035721	.9606
%RSD	.4099690	2.195969	.7548794	.4706638	.2635589	7.419534	.6483035
#1	.0062422	.0037153	11.43662	.1958887	.1831904	.0448658	149.1987
#2	.0062365	.0038456	11.37855	.1964190	.1837961	.0519512	148.0197
#3	.0061954	.0036931	11.26782	.1946265	.1841476	.0476164	147.2956

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.62417**	**10.02409**	**.0882908**	**.0023106**	**-.328322**	**.2781963**	**.3187924**
Stddev	.07424	.08729	.0003994	.0002147	.158455	.0014915	.0051506
%RSD	.6386576	.8707790	.4523836	9.294079	48.26225	.5361131	1.615654
#1	11.69667	10.11437	.0880907	.0025524	-.491472	.2764750	.3243954
#2	11.62754	10.01776	.0887507	.0022374	-.318472	.2791045	.3177181
#3	11.54831	9.94014	.0880309	.0021420	-.175021	.2790095	.3142637

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.533194**	**2.151250**	**.6145175**	**.0073896**	**1.670910**	**6.438675**	**.0087033**
Stddev	.058822	.005508	.0048947	.0001404	.005379	.030030	.0003703
%RSD	1.297593	.2560162	.7965193	1.899299	.3219215	.4663998	4.255158
#1	4.598635	2.151668	.6200614	.0074489	1.664943	6.413468	.0086660
#2	4.484719	2.145546	.6126979	.0074906	1.672403	6.471900	.0090909
#3	4.516227	2.156537	.6107931	.0072294	1.675386	6.430655	.0083530

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-05 Acquired: 1/24/2025 0:35:09 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.268669	.0333380	.1172426
Stddev	.003242	.0009555	.0007859
%RSD	.2555578	2.866042	.6702950
#1	1.267845	.0343195	.1179977
#2	1.272243	.0324108	.1173008
#3	1.265918	.0332837	.1164292

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3818.311	76780.91	10671.49	2693.721	4222.689
Stddev	6.057	406.92	42.05	14.633	9.863
%RSD	.1586331	.5299711	.3940209	.5432438	.2335612
#1	3823.980	76461.59	10704.74	2678.612	4229.102
#2	3819.025	76642.06	10624.23	2694.723	4227.632
#3	3811.929	77239.08	10685.50	2707.827	4211.332

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-06 Acquired: 1/24/2025 0:39:07 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0766388**	**-.000364**	**.3345919**	**.0358015**	**.0164976**	**73.40919**	**4.534602**
Stddev	.0021224	.002957	.0021108	.0001658	.0006387	.09495	.013111
%RSD	2.769383	812.0630	.6308510	.4631886	3.871166	.1293468	.2891331
#1	.0764559	-.002762	.3330983	.0358034	.0162386	73.31177	4.542585
#2	.0788468	.002940	.3336706	.0359664	.0160291	73.41434	4.519471
#3	.0746138	-.001270	.3370067	.0356348	.0172251	73.50147	4.541752

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0053821**	**.0035567**	**8.006579**	**.1802684**	**.1284039**	**.0670771**	**171.6795**
Stddev	.0000507	.0000732	.020851	.0004722	.0006710	.0012076	.4423
%RSD	.9417598	2.056664	.2604261	.2619244	.5225940	1.800274	.2576102
#1	.0053639	.0035081	7.984873	.1801768	.1278714	.0684140	171.1756
#2	.0054394	.0036408	8.008411	.1798487	.1281826	.0667517	171.8593
#3	.0053431	.0035211	8.026455	.1807796	.1291576	.0660656	172.0035

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.155806**	**12.45187**	**.0882548**	**.0020866**	**-.121552**	**.3074270**	**.5759434**
Stddev	.017557	.04922	.0001848	.0004312	.238387	.0025135	.0033034
%RSD	.2453599	.3952832	.2094440	20.66711	196.1191	.8176084	.5735588
#1	7.163138	12.39915	.0881795	.0017273	.122523	.3076166	.5795648
#2	7.135771	12.49662	.0881195	.0019676	-.353813	.3098403	.5730951
#3	7.168509	12.45984	.0884654	.0025648	-.133367	.3048240	.5751704

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.881541**	**1.827372**	**.7072940**	**.0071887**	**1.178890**	**7.841970**	**.0105279**
Stddev	.015378	.010764	.0011560	.0004042	.002756	.013286	.0011861
%RSD	.3961773	.5890562	.1634370	5.622903	.2338028	.1694197	11.26657
#1	3.866129	1.815148	.7063647	.0071503	1.178376	7.836204	.0118974
#2	3.896885	1.831539	.7069289	.0076108	1.176426	7.832541	.0098250
#3	3.881609	1.835431	.7085885	.0068051	1.181867	7.857165	.0098614

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-06 Acquired: 1/24/2025 0:39:07 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.545810	.0366252	.0956761
Stddev	.002178	.0010964	.0004328
%RSD	.1408722	2.993605	.4523246
#1	1.548322	.0376910	.0960342
#2	1.544457	.0366842	.0951952
#3	1.544651	.0355005	.0957988

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3801.589	76767.28	10650.52	2686.022	4154.475
Stddev	1.608	154.92	12.19	13.230	7.969
%RSD	.0422891	.2018052	.1144634	.4925663	.1918180
#1	3802.398	76865.98	10660.42	2675.418	4150.430
#2	3802.631	76847.13	10654.23	2700.849	4163.655
#3	3799.737	76588.72	10636.91	2681.800	4149.340

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-07 Acquired: 1/24/2025 0:43:05 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0874668	-.001253	.4197386	.0336541	.0162752	63.78708	4.520327
Stddev	.0031045	.001464	.0009621	.0026979	.0012838	.36360	.047603
%RSD	3.549379	116.8321	.2292039	8.016533	7.888052	.5700228	1.053079
#1	.0887075	-.000789	.4201090	.0355152	.0153983	63.95051	4.554769
#2	.0839338	-.000077	.4204605	.0305600	.0177488	64.04029	4.540205
#3	.0897591	-.002892	.4186465	.0348871	.0156787	63.37044	4.466007

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091641	.0046080	61.76248	.1761531	.2513077	.0643041	165.4777
Stddev	.0001141	.0000364	.39326	.0000910	.0003162	.0026295	.8527
%RSD	1.244963	.7899379	.6367266	.0516623	.1258184	4.089111	.5152953
#1	.0090562	.0046486	62.03714	.1760752	.2512132	.0614725	165.8580
#2	.0091525	.0045973	61.93833	.1762531	.2510496	.0666689	166.0741
#3	.0092835	.0045781	61.31199	.1761310	.2516604	.0647710	164.5011

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.74466	16.98558	.1362310	.0015061	-.083627	.3712276	.3857317
Stddev	.15680	.06063	.0003669	.0006947	.145164	.0008241	.0044365
%RSD	.7941286	.3569579	.2692870	46.12559	173.5855	.2219981	1.150156
#1	19.87605	16.94229	.1359895	.0014590	.082336	.3715367	.3888722
#2	19.78685	17.05488	.1360505	.0022232	-.186977	.3702936	.3876665
#3	19.57108	16.95958	.1366532	.0008362	-.146239	.3718524	.3806564

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.178541	3.224152	.6912422	.0095185	2.292384	6.546873	.0073148
Stddev	.096871	.010697	.0043810	.0003404	.005350	.017409	.0006650
%RSD	1.870622	.3317918	.6337829	3.576545	.2333680	.2659163	9.091673
#1	5.190898	3.233767	.6936579	.0098872	2.298480	6.556281	.0079380
#2	5.268641	3.226061	.6938834	.0094523	2.288470	6.526784	.0066146
#3	5.076085	3.212629	.6861851	.0092161	2.290202	6.557555	.0073917

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-07 Acquired: 1/24/2025 0:43:05 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.176908	.0326270	.1951434
Stddev	.005693	.0006529	.0015742
%RSD	.4837527	2.001077	.8066909
#1	1.183463	.0322712	.1963548
#2	1.173199	.0333805	.1957114
#3	1.174062	.0322292	.1933640

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3882.030	77475.56	10861.57	2733.987	4081.833
Stddev	3.479	184.29	46.38	4.050	1.369
%RSD	.0896094	.2378647	.4270458	.1481208	.0335454
#1	3883.472	77544.11	10881.69	2733.558	4081.231
#2	3878.062	77266.82	10894.50	2730.168	4080.869
#3	3884.555	77615.74	10808.53	2738.233	4083.400

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-08 Acquired: 1/24/2025 0:47:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0817199**	**-.002330**	**.5030144**	**.0303174**	**.0142161**	**58.74114**	**6.564423**
Stddev	.0024811	.001161	.0023995	.0025167	.0012873	.30887	.042834
%RSD	3.036108	49.84889	.4770266	8.301214	9.055316	.5258078	.6525130
#1	.0837139	-.002596	.5050100	.0280601	.0144227	59.05891	6.606954
#2	.0825045	-.003334	.5003520	.0330311	.0128379	58.72249	6.565024
#3	.0789414	-.001058	.5036811	.0298611	.0153875	58.44202	6.521292

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0089382**	**.0047181**	**24.65116**	**.1403679**	**.2298963**	**.0649110**	**147.2521**
Stddev	.0000385	.0000401	.12432	.0001345	.0003906	.0024001	.7738
%RSD	.4302487	.8504670	.5043142	.0957912	.1699223	3.697569	.5254925
#1	.0089758	.0047025	24.77786	.1405230	.2294456	.0640222	148.0501
#2	.0089399	.0047637	24.64624	.1402851	.2301372	.0676288	147.2012
#3	.0088990	.0046882	24.52937	.1402955	.2301062	.0630821	146.5051

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**21.15228**	**11.59508**	**.1095810**	**.0035213**	**-.125211**	**.2843313**	**.4576524**
Stddev	.07090	.07220	.0003411	.0003885	.340598	.0010984	.0028442
%RSD	.3351811	.6226981	.3112722	11.03298	272.0203	.3863221	.6214660
#1	21.22998	11.67209	.1091887	.0039698	.201754	.2855569	.4557205
#2	21.09110	11.52892	.1097465	.0033033	-.099410	.2834356	.4609184
#3	21.13576	11.58423	.1098077	.0032907	-.477975	.2840013	.4563183

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.229255**	**3.500372**	**.6177181**	**.0069276**	**2.543469**	**8.008769**	**.0071016**
Stddev	.054760	.008349	.0042212	.0004043	.003258	.008205	.0011267
%RSD	1.047186	.2385242	.6833529	5.835530	.1280952	.1024517	15.86509
#1	5.287757	3.497694	.6213685	.0064764	2.546790	8.014558	.0064314
#2	5.179224	3.509732	.6186902	.0070497	2.543337	8.012371	.0084023
#3	5.220783	3.493690	.6130957	.0072567	2.540278	7.999379	.0064709

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-08 Acquired: 1/24/2025 0:47:02 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.156638**	**.0315403**	**.1685987**
Stddev	.001477	.0004519	.0009474
%RSD	.1276917	1.432883	.5619582
#1	1.155488	.0318330	.1695906
#2	1.156121	.0310198	.1685025
#3	1.158303	.0317681	.1677030

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3798.704**	**77789.20**	**10894.90**	**2731.722**	**4086.241**
Stddev	4.225	248.62	47.33	6.311	3.864
%RSD	.1112156	.3196085	.4344633	.2310296	.0945687
#1	3801.443	77576.36	10925.24	2728.257	4086.538
#2	3800.831	78062.46	10919.10	2727.902	4089.948
#3	3793.839	77728.77	10840.36	2739.006	4082.237

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-09 Acquired: 1/24/2025 0:51:52 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0935474	-.002479	.5238348	.0331471	.0151604	53.45553	5.444534
Stddev	.0027368	.002582	.0016380	.0011757	.0013769	.08789	.012914
%RSD	2.925573	104.1607	.3126904	3.547021	9.082101	.1644162	.2371896
#1	.0932813	-.004663	.5248834	.0337722	.0147109	53.54959	5.454558
#2	.0909534	.000371	.5219473	.0317908	.0140645	53.37550	5.429961
#3	.0964075	-.003146	.5246736	.0338782	.0167059	53.44150	5.449081

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0097482	.0053121	14.80164	.1939529	.2767848	.0453433	161.0153
Stddev	.0001087	.0000276	.04026	.0008697	.0006627	.0014839	.4428
%RSD	1.115388	.5198637	.2719763	.4484199	.2394378	3.272492	.2749936
#1	.0096253	.0053228	14.84806	.1933714	.2768815	.0458115	161.4235
#2	.0098320	.0053328	14.78062	.1935345	.2760791	.0465365	160.5446
#3	.0097873	.0052808	14.77625	.1949527	.2773939	.0436817	161.0777

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.07190	8.599493	.1182005	.0044955	-.199688	.3207414	.3973128
Stddev	.28893	.032463	.0003188	.0003079	.137834	.0015558	.0018670
%RSD	1.067260	.3774933	.2697018	6.849008	69.02473	.4850547	.4699032
#1	27.31560	8.636958	.1184509	.0044253	-.271229	.3221123	.3993285
#2	26.75273	8.581805	.1183090	.0048325	-.040793	.3210613	.3969671
#3	27.14739	8.579715	.1178417	.0042288	-.287042	.3190505	.3956428

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.126637	3.299890	.6671394	.0076919	1.701575	5.831773	.0081556
Stddev	.017767	.006862	.0022404	.0004161	.002603	.033519	.0007260
%RSD	.4305489	.2079385	.3358197	5.409980	.1529625	.5747645	8.901420
#1	4.135516	3.300506	.6694858	.0073228	1.700461	5.858827	.0080033
#2	4.106181	3.292741	.6650228	.0076099	1.699715	5.842216	.0075179
#3	4.138216	3.306423	.6669096	.0081429	1.704549	5.794276	.0089457

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-09 Acquired: 1/24/2025 0:51:52 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.175061	.0275162	.1299359
Stddev	.004604	.0003112	.0003305
%RSD	.3917755	1.130930	.2543695
#1	1.176446	.0277542	.1302134
#2	1.178813	.0276304	.1300241
#3	1.169923	.0271641	.1295703

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3839.545	78207.50	10863.79	2743.229	4182.601
Stddev	1.762	271.84	21.18	29.552	2.085
%RSD	.0458947	.3475901	.1949199	1.077257	.0498561
#1	3839.729	77895.57	10843.07	2709.136	4184.611
#2	3841.208	78333.09	10862.89	2761.519	4182.744
#3	3837.698	78393.84	10885.39	2759.031	4180.448

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-10 Acquired: 1/24/2025 0:58:23 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0711616	-.000531	.4834960	.0307473	.0145986	62.25024	14.55555
Stddev	.0032527	.001113	.0012136	.0015834	.0025242	.23624	.09384
%RSD	4.570842	209.3970	.2510156	5.149870	17.29065	.3794990	.6447133
#1	.0688615	.000612	.4829529	.0290563	.0117527	62.27354	14.60510
#2	.0697403	-.001611	.4848864	.0321951	.0154762	62.00322	14.44732
#3	.0748830	-.000595	.4826488	.0309906	.0165668	62.47397	14.61424

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062368	.0056365	85.57919	.1239134	.1500245	.0880197	138.7030
Stddev	.0001066	.0001177	.29302	.0002988	.0006877	.0004053	.4989
%RSD	1.708858	2.088092	.3423911	.2411188	.4584209	.4604152	.3597239
#1	.0062216	.0056223	85.51404	.1235934	.1498422	.0883059	138.6653
#2	.0063501	.0055266	85.32423	.1239619	.1494462	.0881973	138.2240
#3	.0061386	.0057607	85.89929	.1241850	.1507850	.0875560	139.2197

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.769508	45.77754	.0925601	.0019721	-.162598	.2510230	1.040704
Stddev	.026057	.16605	.0004468	.0005891	.326599	.0018920	.004304
%RSD	.2667126	.3627373	.4826934	29.87225	200.8630	.7537327	.4135668
#1	9.784197	45.73804	.0921567	.0012919	.158996	.2502249	1.042917
#2	9.739424	45.63480	.0924833	.0023075	-.493981	.2531834	1.035744
#3	9.784905	45.95978	.0930403	.0023170	-.152808	.2496609	1.043451

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.122800	5.212935	.5824367	.0083824	5.923269	6.240597	.0071469
Stddev	.058892	.007750	.0019032	.0002388	.028285	.025636	.0010475
%RSD	1.149614	.1486768	.3267626	2.848834	.4775240	.4107890	14.65690
#1	5.077737	5.204112	.5826111	.0082982	5.901825	6.244052	.0082101
#2	5.101226	5.218643	.5804524	.0081971	5.912656	6.264330	.0071149
#3	5.189437	5.216051	.5842468	.0086519	5.955326	6.213409	.0061158

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-10 Acquired: 1/24/2025 0:58:23 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.254652	.0375445	.1891023
Stddev	.005932	.0003030	.0004345
%RSD	.4727864	.8070616	.2297552
#1	1.259691	.0373981	.1894234
#2	1.256150	.0378929	.1886079
#3	1.248114	.0373425	.1892756

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3686.872	75125.43	10695.05	2618.915	3963.003
Stddev	3.281	100.16	40.60	12.458	5.183
%RSD	.0889992	.1333280	.3795855	.4756891	.1307864
#1	3687.734	75221.82	10714.40	2606.269	3966.341
#2	3689.636	75132.60	10648.40	2631.176	3965.637
#3	3683.246	75021.88	10722.36	2619.300	3957.032

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-11 Acquired: 1/24/2025 1:02:28 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0760766**	**-.004525**	**3.234296**	**.0093360**	**.0241270**	**24.09328**
Stddev	.0047190	.001154	.000334	.0023962	.0016135	.02289
%RSD	6.202899	25.50103	.0103167	25.66621	6.687618	.0950194
#1	.0815236	-.005724	3.234454	.0068455	.0248598	24.10820
#2	.0732241	-.003422	3.233912	.0095372	.0252441	24.10472
#3	.0734822	-.004429	3.234521	.0116253	.0222771	24.06692

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.26998**	**.0024444**	**.1038723**	F **1179.522**	**.0814758**	**.0876666**
Stddev	.06620	.0000508	.0002266	7.920	.0005901	.0006825
%RSD	.5395086	2.078517	.2181714	.6714525	.7242663	.7785777
#1	12.33487	.0024775	.1041338	1178.003	.0817908	.0880684
#2	12.27252	.0023859	.1037339	1188.091	.0818416	.0868785
#3	12.20255	.0024699	.1037491	1172.471	.0807951	.0880528

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2739489**	**127.9725**	**6.305647**	**662.7345**	**.0947372**	**.0027294**
Stddev	.0043898	.0837	.021845	.9207	.0009057	.0005626
%RSD	1.602399	.0654392	.3464433	.1389207	.9559606	20.61323
#1	.2788836	127.9159	6.321917	661.7642	.0951582	.0025944
#2	.2724850	127.9329	6.280818	662.8435	.0936977	.0033472
#3	.2704782	128.0687	6.314207	663.5958	.0953558	.0022465

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.276131**	**.1654559**	**27.33323**	**1.244838**	**2.456738**	**.5563025**
Stddev	.639575	.0021610	.17184	.026094	.012286	.0012620
%RSD	231.6200	1.306091	.6286866	2.096197	.5001090	.2268474
#1	-.725683	.1641406	27.47945	1.266626	2.466805	.5553598
#2	.456073	.1679500	27.14395	1.251968	2.443047	.5558115
#3	-.558782	.1642772	27.37629	1.215920	2.460360	.5577361

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-11 Acquired: 1/24/2025 1:02:28 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052178	F 74.32349	5.723502	.0010344	.6712339	.0381536
Stddev	.0009234	.14612	.005901	.0007695	.0032162	.0011166
%RSD	17.69784	.1965947	.1030996	74.38784	.4791487	2.926678
#1	.0057615	74.47928	5.727863	.0004244	.6749126	.0393939
#2	.0041516	74.18949	5.716787	.0007799	.6689537	.0372283
#3	.0057403	74.30170	5.725855	.0018989	.6698354	.0378387

Elem	Sr4077
Units	ppm
Avg	.5270274
Stddev	.0020137
%RSD	.3820943
#1	.5288277
#2	.5248527
#3	.5274018

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3037.181	61879.69	9371.613	2125.727	3224.338
Stddev	9.613	70.48	3.095	8.578	6.045
%RSD	.3165205	.1138943	.0330212	.4035422	.1874858
#1	3030.807	61871.75	9368.884	2121.303	3218.399
#2	3032.497	61953.81	9374.975	2135.614	3224.130
#3	3048.239	61813.53	9370.981	2120.264	3230.484

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-12 Acquired: 1/24/2025 1:06:40 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0960766	.0008635	.4221639	.0432601	.0208102	98.89209	4.229725
Stddev	.0013984	.0010341	.0010228	.0020360	.0005033	.48655	.021389
%RSD	1.455514	119.7547	.2422717	4.706470	2.418592	.4919975	.5056822
#1	.0969763	.0011543	.4225293	.0411874	.0212878	99.26443	4.251683
#2	.0967880	.0017211	.4229538	.0433355	.0202846	98.34157	4.208955
#3	.0944655	-.000285	.4210086	.0452574	.0208583	99.07027	4.228536

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077548	.0045940	10.73603	.1988270	.1881408	.0952252	216.1030
Stddev	.0001243	.0000533	.05940	.0001451	.0001208	.0032800	.9981
%RSD	1.602569	1.161075	.5532750	.0729718	.0642176	3.444453	.4618763
#1	.0078846	.0045882	10.79842	.1986667	.1880949	.0987484	217.0482
#2	.0077431	.0046500	10.68015	.1989492	.1880496	.0922600	215.0593
#3	.0076369	.0045438	10.72951	.1988650	.1882778	.0946671	216.2016

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.60347	16.30182	.1209905	.0022468	.1664094	.3748433	.5087266
Stddev	.04327	.03785	.0006665	.0003957	.0886164	.0019718	.0069251
%RSD	.3728870	.2321701	.5508744	17.61248	53.25204	.5260235	1.361263
#1	11.64488	16.33798	.1202218	.0027032	.1644844	.3731093	.5142719
#2	11.55856	16.26248	.1213432	.0020373	.2559725	.3769881	.5009645
#3	11.60696	16.30498	.1214066	.0019998	.0787711	.3744325	.5109433

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.469402	2.990807	.8978309	.0087761	2.223864	5.598163	.0108872
Stddev	.048610	.009265	.0052093	.0001659	.005236	.016451	.0002362
%RSD	.6507846	.3097658	.5802092	1.890808	.2354459	.2938556	2.169728
#1	7.465906	2.992515	.9021429	.0088155	2.229638	5.603996	.0110143
#2	7.422635	2.999098	.8920428	.0089188	2.222528	5.610902	.0106146
#3	7.519666	2.980807	.8993069	.0085940	2.219425	5.579591	.0110325

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-12 Acquired: 1/24/2025 1:06:40 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.496097	.0523356	.1130973
Stddev	.004978	.0006229	.0003946
%RSD	.3327431	1.190177	.3488608
#1	1.500907	.0529428	.1135139
#2	1.496418	.0516981	.1127293
#3	1.490966	.0523660	.1130487

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3969.284	78614.06	11135.70	2777.678	4177.064
Stddev	5.358	105.23	67.42	18.484	3.666
%RSD	.1349766	.1338569	.6053966	.6654400	.0877692
#1	3964.112	78735.56	11195.95	2775.350	4173.970
#2	3968.929	78554.40	11062.89	2797.215	4176.108
#3	3974.810	78552.21	11148.26	2760.468	4181.113

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-13 Acquired: 1/24/2025 1:10:37 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0421875	-.004960	.4206027	.0003932	.0147787	29.06769
Stddev	.0038645	.002615	.0039901	.0028773	.0037794	.17805
%RSD	9.160261	52.72299	.9486644	731.8035	25.57326	.6125230
#1	.0377328	-.002450	.4203414	.0026127	.0145365	29.21898
#2	.0441905	-.004760	.4167497	.0014244	.0186733	28.87149
#3	.0446394	-.007669	.4247170	-.002858	.0111262	29.11259

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 23.14836	.0020162	.0215230	F 1355.957	.1008255	.0458291
Stddev	.27335	.0000985	.0001179	6.870	.0003481	.0005818
%RSD	1.180842	4.885497	.5480295	.5066238	.3452449	1.269522
#1	23.23796	.0021001	.0215245	1348.067	.1011679	.0465003
#2	23.36566	.0020407	.0214042	1360.610	.1008367	.0454698
#3	22.84146	.0019078	.0216401	1359.195	.1004720	.0455170

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1240635	97.99514	3.613287	775.1027	.0660447	-.000628
Stddev	.0016993	.49881	.026926	3.1848	.0004923	.000431
%RSD	1.369727	.5090173	.7451881	.4108881	.7453909	68.53939
#1	.1229173	98.53606	3.642345	778.2050	.0662037	-.000236
#2	.1232573	97.55331	3.589180	771.8413	.0654926	-.001089
#3	.1260159	97.89605	3.608337	775.2618	.0664378	-.000561

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.933369	.1711045	9.485058	1.097012	1.149952	.4272013
Stddev	.121700	.0019337	.026644	.024488	.009313	.0029360
%RSD	13.03878	1.130139	.2809096	2.232277	.8098764	.6872553
#1	-.793820	.1701916	9.515669	1.081537	1.159723	.4305091
#2	-1.01747	.1697963	9.472429	1.084255	1.141177	.4249041
#3	-.98881	.1733257	9.467077	1.125245	1.148956	.4261908

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-13 Acquired: 1/24/2025 1:10:37 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022052	F 30.86953	6.883017	.0007043	.7252904	.0454933
Stddev	.0003306	.15497	.013179	.0008041	.0010229	.0018751
%RSD	14.99364	.5020280	.1914713	114.1800	.1410397	4.121778
#1	.0020902	30.98703	6.888477	.0012019	.7264659	.0474093
#2	.0025780	30.69389	6.867986	-.000223	.7246028	.0436619
#3	.0019475	30.92766	6.892588	.001134	.7248024	.0454088

Elem	Sr4077
Units	ppm
Avg	.6311641
Stddev	.0055496
%RSD	.8792668
#1	.6364883
#2	.6254137
#3	.6315903

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2940.418	61162.88	9269.149	2100.455	3107.803
Stddev	22.042	58.65	44.142	5.515	23.836
%RSD	.7496160	.0958925	.4762301	.2625632	.7669870
#1	2925.033	61108.80	9298.361	2099.228	3089.504
#2	2965.670	61154.61	9218.369	2095.657	3134.758
#3	2930.552	61225.23	9290.718	2106.480	3099.147

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-14 Acquired: 1/24/2025 1:14:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0733950**	**-.001381**	**.3732947**	**.0293101**	**.0154854**	**59.84957**	**4.495886**
Stddev	.0016223	.001498	.0014737	.0023173	.0018574	.19374	.008324
%RSD	2.210296	108.4748	.3947889	7.906008	11.99458	.3237194	.1851416
#1	.0751127	-.000188	.3741088	.0267363	.0134348	60.03636	4.505172
#2	.0718889	-.000892	.3715935	.0312305	.0170550	59.64955	4.493388
#3	.0731835	-.003062	.3741818	.0299634	.0159664	59.86279	4.489097

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062835**	**.0047279**	**16.51473**	**.1421068**	**.1648214**	**.0646615**	**148.4323**
Stddev	.0000773	.0000917	.03888	.0006527	.0003279	.0031868	.4912
%RSD	1.230899	1.939476	.2353965	.4592822	.1989159	4.928435	.3309570
#1	.0063199	.0048062	16.55887	.1416065	.1651443	.0654968	148.8645
#2	.0063360	.0047506	16.48559	.1418689	.1644888	.0611402	147.8980
#3	.0061947	.0046270	16.49973	.1428451	.1648310	.0673475	148.5344

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.83794**	**11.47605**	**.0945007**	**.0020260**	**-.372551**	**.2736616**	**.4541654**
Stddev	.01470	.03889	.0007532	.0003002	.703928	.0022698	.0063927
%RSD	.1062504	.3388890	.7970707	14.81497	188.9479	.8294123	1.407574
#1	13.85491	11.47220	.0948967	.0022078	-.805785	.2754549	.4551893
#2	13.82972	11.43922	.0936321	.0016796	.439671	.2711097	.4599844
#3	13.82918	11.51672	.0949734	.0021906	-.751539	.2744203	.4473225

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.020176**	**2.678084**	**.6163193**	**.0068425**	**1.919366**	**8.340616**	**.0076906**
Stddev	.034202	.002140	.0020296	.0002346	.007704	.005319	.0006796
%RSD	.6813006	.0799232	.3293053	3.428350	.4013755	.0637756	8.837212
#1	4.981058	2.680292	.6168388	.0070144	1.915361	8.334517	.0070824
#2	5.044445	2.677942	.6140805	.0065753	1.914489	8.344295	.0075651
#3	5.035024	2.676018	.6180386	.0069379	1.928247	8.343037	.0084242

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-14 Acquired: 1/24/2025 1:14:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPY9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.309172	.0272062	.1400598
Stddev	.001172	.0011571	.0002988
%RSD	.0894936	4.253023	.2133301
#1	1.310502	.0273477	.1404010
#2	1.308290	.0282861	.1399332
#3	1.308725	.0259849	.1398451

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3810.163	78333.85	10926.84	2744.035	4142.130
Stddev	3.088	120.53	35.43	11.824	10.742
%RSD	.0810368	.1538702	.3242149	.4309088	.2593458
#1	3806.848	78469.52	10967.70	2756.788	4129.748
#2	3812.957	78292.94	10904.63	2733.435	4148.965
#3	3810.685	78239.11	10908.19	2741.881	4147.677

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-15 Acquired: 1/24/2025 1:18:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1105527	.0001419	1.882276	.0427180	.0245165	69.79243	13.76206
Stddev	.0029538	.0022400	.006123	.0032750	.0016471	.28099	.07775
%RSD	2.671817	1578.633	.3253070	7.666534	6.718257	.4026038	.5649695
#1	.1138830	-.001803	1.875906	.0429120	.0263671	69.67145	13.79447
#2	.1082500	-.000362	1.882805	.0458918	.0239709	70.11365	13.81835
#3	.1095251	.002591	1.888118	.0393504	.0232114	69.59220	13.67334

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059347	.0080338	31.72095	.2294485	.1225522	.1596918	229.6183
Stddev	.0001386	.0000918	.19674	.0004214	.0005311	.0026930	1.0669
%RSD	2.334960	1.142490	.6202190	.1836443	.4334048	1.686358	.4646582
#1	.0059500	.0081292	31.68809	.2294082	.1220271	.1571152	229.2271
#2	.0060650	.0079461	31.93204	.2298885	.1225403	.1594726	230.8256
#3	.0057891	.0080260	31.54270	.2290487	.1230892	.1624877	228.8021

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.250369	15.23562	.1297907	.0022140	-.097284	.3951750	1.365249
Stddev	.028417	.11665	.0012823	.0004718	.299625	.0014290	.005969
%RSD	.4546432	.7656124	.9880009	21.30911	307.9891	.3616229	.4371897
#1	6.243199	15.15936	.1284379	.0021709	.175155	.3961592	1.366950
#2	6.281685	15.36990	.1299457	.0027058	-.048821	.3958299	1.358615
#3	6.226224	15.17760	.1309885	.0017652	-.418187	.3935359	1.370183

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.740904	3.209394	.9563311	.0078231	4.591854	7.837300	.0136195
Stddev	.079806	.007998	.0063211	.0002265	.002913	.031855	.0007451
%RSD	1.183905	.2492011	.6609751	2.895695	.0634296	.4064587	5.470544
#1	6.681486	3.205210	.9557032	.0079087	4.590231	7.873303	.0139776
#2	6.831614	3.204356	.9629427	.0075662	4.590113	7.812773	.0141179
#3	6.709612	3.218616	.9503473	.0079943	4.595216	7.825824	.0127630

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-15 Acquired: 1/24/2025 1:18:48 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.796615	.0340443	.1811511
Stddev	.001511	.0001833	.0008803
%RSD	.0840915	.5382764	.4859611
#1	1.795638	.0339526	.1812864
#2	1.798355	.0342553	.1819558
#3	1.795851	.0339250	.1802109

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3764.582	75969.23	10816.19	2683.263	4081.597
Stddev	6.534	293.39	12.49	11.650	13.709
%RSD	.1735566	.3861948	.1154980	.4341630	.3358815
#1	3770.163	75882.36	10801.76	2673.246	4091.119
#2	3766.187	75729.07	10823.42	2680.496	4087.789
#3	3757.395	76296.24	10823.38	2696.047	4065.884

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-16 Acquired: 1/24/2025 1:22:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0901754**	**-.003731**	**2.467282**	**.0355305**	**.0198824**	**64.96100**
Stddev	.0033504	.003754	.004053	.0013800	.0022955	.31208
%RSD	3.715444	100.6228	.1642888	3.884028	11.54546	.4804037
#1	.0877181	-.001712	2.466474	.0342991	.0180427	64.68358
#2	.0888163	-.008063	2.463694	.0352704	.0191497	64.90054
#3	.0939918	-.001418	2.471679	.0370221	.0224549	65.29888

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **22.44208**	**.0070019**	**.0114367**	**126.0879**	**.1661654**	**.1751817**
Stddev	.14951	.0001621	.0001289	.6849	.0007377	.0003477
%RSD	.6662075	2.315528	1.127374	.5431843	.4439405	.1984557
#1	22.36137	.0069099	.0114416	125.5960	.1657770	.1751722
#2	22.61460	.0071892	.0115631	125.7974	.1657031	.1748389
#3	22.35026	.0069068	.0113054	126.8701	.1670161	.1755341

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1421398**	**185.5933**	**12.59790**	**63.47534**	**.1400513**	**.0024166**
Stddev	.0005911	.9496	.07084	.35267	.0008762	.0004541
%RSD	.4158461	.5116656	.5622811	.5556045	.6256027	18.79037
#1	.1417824	184.8632	12.53005	63.26575	.1390406	.0020404
#2	.1418148	185.2497	12.59226	63.27775	.1405180	.0022883
#3	.1428220	186.6668	12.67138	63.88251	.1405953	.0029210

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1385007**	**.3094408**	**1.949516**	**5.796868**	**4.052216**	**.7830201**
Stddev	.4198649	.0038033	.008264	.023447	.010734	.0053331
%RSD	303.1500	1.229075	.4239170	.4044792	.2648998	.6810956
#1	.2395039	.3105394	1.944902	5.769857	4.040197	.7785317
#2	-.322653	.3125738	1.944589	5.808759	4.055601	.7816129
#3	.498651	.3052091	1.959057	5.811986	4.060850	.7889157

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: Q1044-16 Acquired: 1/24/2025 1:22:51 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: GCPZ1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0086251	8.832168	7.561257	.0093665	1.433958	.0380142
Stddev	.0002868	.013574	.036836	.0004468	.004265	.0005769
%RSD	3.324753	.1536921	.4871633	4.770296	.2973934	1.517605
#1	.0089219	8.822807	7.577965	.0098755	1.438573	.0374031
#2	.0086037	8.825962	7.586778	.0091854	1.433136	.0380901
#3	.0083496	8.847736	7.519028	.0090388	1.430164	.0385494

Elem	Sr4077
Units	ppm
Avg	.2710903
Stddev	.0013390
%RSD	.4939347
#1	.2698015
#2	.2709950
#3	.2724744

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3703.129	76451.57	10938.67	2665.305	3905.956
Stddev	1.370	110.22	57.45	8.953	6.512
%RSD	.0370006	.1441737	.5251795	.3359268	.1667092
#1	3701.549	76499.42	10888.04	2661.281	3905.124
#2	3703.856	76529.78	10926.87	2675.565	3912.844
#3	3703.983	76325.51	11001.10	2659.070	3899.900

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV009 Acquired: 1/24/2025 1:26:56 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV009 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.687432**	**4.665547**	**24.01235**	**4.648491**	**4.707919**	**381.1188**
Stddev	.010582	.038042	.05601	.002475	.006997	1.4680
%RSD	.2257543	.8153761	.2332600	.0532400	.1486139	.3851714
#1	4.676295	4.699523	24.04807	4.645988	4.701709	379.6165
#2	4.697355	4.672672	23.94779	4.650937	4.715500	382.5499
#3	4.688648	4.624447	24.04117	4.648549	4.706548	381.1900

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.706822**	**.4941967**	**2.444287**	**383.4958**	**15.35648**	**2.423398**
Stddev	.075188	.0022622	.006347	.5680	.00453	.006062
%RSD	.7745842	.4577460	.2596491	.1481146	.0294796	.2501280
#1	9.686978	.4919656	2.450450	383.7089	15.36102	2.423491
#2	9.789941	.4964887	2.437772	383.9264	15.35196	2.417291
#3	9.643547	.4941359	2.444640	382.8520	15.35646	2.429413

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.38126**	**395.0860**	**14.47790**	**388.2816**	**2.424542**	**1.255492**
Stddev	.08335	.8171	.03146	.2466	.006609	.002639
%RSD	.5796038	.2068037	.2172794	.0635080	.2725687	.2101864
#1	14.28526	395.9550	14.44210	388.4226	2.427134	1.255685
#2	14.42332	394.3334	14.49047	388.4254	2.417030	1.258029
#3	14.43521	394.9697	14.50112	387.9969	2.429461	1.252762

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**376.7552**	**2.435044**	**14.79659**	**144.8456**	**5.020522**	F **5.857112**
Stddev	2.8370	.001561	.02720	.4336	.012355	.004137
%RSD	.7530022	.0641204	.1838330	.2993816	.2460844	.0706279
#1	373.4919	2.433952	14.77261	145.2480	5.031863	5.854298
#2	378.6347	2.434349	14.79100	144.3863	5.007357	5.861862
#3	378.1390	2.436833	14.82615	144.9025	5.022345	5.855177

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCV009 Acquired: 1/24/2025 1:26:56 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV009 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.699451**	**4.894571**	**4.822265**	**4.942940**	**4.814420**	**4.687312**
Stddev	.001709	.014935	.032436	.016288	.018921	.014530
%RSD	.0363708	.3051311	.6726382	.3295120	.3930139	.3099922
#1	4.700798	4.899995	4.785935	4.956864	4.793740	4.693335
#2	4.697528	4.877682	4.848317	4.925029	4.830864	4.670739
#3	4.700027	4.906036	4.832544	4.946928	4.818657	4.697863

Elem	Sr4077
Units	ppm
Avg	**4.897818**
Stddev	.018521
%RSD	.3781425
#1	4.881013
#2	4.917675
#3	4.894765

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2894.315**	**61183.54**	**9226.074**	**2122.392**	**3288.149**
Stddev	3.945	157.88	63.628	2.579	11.598
%RSD	.1363131	.2580506	.6896531	.1215078	.3527346
#1	2891.725	61311.58	9284.309	2124.915	3279.589
#2	2898.856	61007.13	9158.162	2119.761	3301.349
#3	2892.364	61231.92	9235.751	2122.500	3283.509

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB009 Acquired: 1/24/2025 1:31:14 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB009 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001741**	**.0000569**	**-.001178**	**.0020448**	**.0000298**	**.0065400**	**-.001088**
Stddev	.000413	.0006157	.001208	.0028936	.0009525	.0026592	.001208
%RSD	23.71943	1081.385	102.5361	141.5118	3199.915	40.66083	110.9450
#1	-.001289	-.000577	-.001767	-.001296	-.000678	.0045605	.000123
#2	-.002098	.000094	-.001980	.003686	.001113	.0095626	-.001097
#3	-.001836	.000653	.000211	.003745	-.000345	.0054968	-.002292

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000034**	**.0000012**	**.0119875**	**.0006516**	**-.000029**	**-.000432**	**.0101399**
Stddev	.000010	.0000520	.0076251	.0002378	.000158	.002008	.0057273
%RSD	30.33613	4353.466	63.60866	36.50097	542.7419	464.7251	56.48260
#1	-.000035	.0000519	.0156461	.0004677	.000136	-.002405	.0048430
#2	-.000023	-.000052	.0032226	.0009202	-.000044	.001610	.0162175
#3	-.000044	.000004	.0170938	.0005668	-.000180	-.000501	.0093593

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003513**	**.0237380**	**.0001807**	**-.000344**	**.0380086**	**.0022338**	**.0001143**
Stddev	.0003394	.0039911	.0003215	.000423	.2237358	.0010601	.0006887
%RSD	96.63384	16.81320	177.9297	122.7332	588.6447	47.45448	602.7833
#1	.0004449	.0198094	.0002436	-.000497	.2437579	.0034308	.0008640
#2	.0006341	.0236157	.0004660	.000133	.0704415	.0014135	-.000490
#3	-.000025	.0277889	-.000168	-.000670	-.200174	.0018573	-.000031

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.223224**	**.0038457**	**.0027290**	**-.000027**	**.0009089**	**.0043739**	**-.000033**
Stddev	.084481	.0010645	.0002503	.000105	.0010673	.0020144	.000655
%RSD	37.84585	27.67971	9.173958	390.7826	117.4340	46.05499	2004.556
#1	-.320614	.0050407	.0030143	.000094	.0005264	.0024491	.000385
#2	-.179379	.0034975	.0026265	-.000076	.0021148	.0042053	.000305
#3	-.169680	.0029989	.0025461	-.000099	.0000855	.0064674	-.000787

Reviewed By:kareem
On:1/24/2025 4:41:08 PM
Inst Id :P4

Sample Name: CCB009 Acquired: 1/24/2025 1:31:14 Type: Unk
Method: EPA SFAM01.0(v52) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB009 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0000493	-.005378	.0001119
Stddev	.0001311	.000705	.0000230
%RSD	265.8885	13.10561	20.59378
#1	.0000551	-.006186	.0001083
#2	.0001774	-.004890	.0001365
#3	-.000085	-.005058	.0000909

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3610.912	72900.47	9737.517	2560.399	4479.426
Stddev	4.446	170.12	34.906	13.354	8.233
%RSD	.1231219	.2333653	.3584679	.5215597	.1837985
#1	3607.538	72848.29	9698.303	2570.546	4480.834
#2	3615.950	72762.55	9749.051	2545.270	4486.865
#3	3609.248	73090.57	9765.195	2565.381	4470.580

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

Prep Standard - Chemical Standard Summary

Order ID : Q1043

Test : Metals CLP12

Prepbatch ID : PB166016,

Sequence ID/Qc Batch ID: LB134392,

Standard ID :
MP83498,MP83500,MP83506,MP83512,MP84058,MP84059,MP84060,MP84061,MP84062,MP84063,MP84064,MP840
65,MP84066,MP84067,MP84069,MP84071,MP84072,

Chemical ID :
M5130,M5218,M5223,M5289,M5295,M5296,M5298,M5390,M5393,M5429,M5472,M5473,M5476,M5496,M5497,M5498
,M5513,M5515,M5516,M5519,M5658,M5697,M5698,M5769,M5798,M5799,M5800,M5801,M5802,M5806,M5815,M581
6,M5817,M5818,M5819,M5820,M5875,M5942,M5959,M5960,M5961,M5962,M5970,M5976,M5978,M5985,M5990,M59
99,M6021,M6023,M6025,M6028,M6030,M6032,M6121,M6125,M6126,M6127,M6128,W3112,

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP83498	12/09/2024	01/16/2025	Janvi Patel	None	None	Sarabjit Jaswal 12/09/2024

FROM 1250.00000ml of M6126 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83500	12/06/2024	01/24/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
994	ICPAES ISM01.2 S1 (CONC.)	MP83506	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.02000ml of M5815 + 0.03000ml of M5429 + 0.10000ml of M5798 + 0.10000ml of M6028 + 0.14000ml of M5799 + 0.20000ml of M5473 + 0.20000ml of M5515 + 0.20000ml of M5658 + 0.20000ml of M5801 + 0.20000ml of M5817 + 0.20000ml of M5976 + 0.20000ml of M6025 + 0.20000ml of M6030 + 0.30000ml of M5698 + 0.40000ml of M5496 + 0.50000ml of M5697 + 0.50000ml of M6023 + 0.70000ml of M5962 + 0.80000ml of M5960 + 1.00000ml of M5800 + 1.00000ml of M6021 + 1.20000ml of M5802 + 1.20000ml of M5819 + 10.00000ml of M5498 + 10.00000ml of M5519 + 10.00000ml of M5769 + 10.00000ml of M5806 + 10.00000ml of M5818 + 2.00000ml of M5978 + 4.00000ml of M5390 + 99.50000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
921	ICPAES SPIKE SOL#6	MP83512	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 2.50000ml of M5962 + 50.00000ml of M5990 + 50.00000ml of M5999 + 147.50000ml of MP83500 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2480	ICP AES STD 6 ISM01.3	MP84058	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 4.00000ml of M5289 + 4.00000ml of M5298 + 4.00000ml of M5497 + 4.00000ml of M5806 + 4.00000ml of M6127 + 30.00000ml of MP83500 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1004	ICPAES ISM01.2 (S5)	MP84059	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.25000ml of M5798 + 0.50000ml of M5429 + 0.50000ml of M5476 + 0.50000ml of M5815 + 0.50000ml of M5817 + 12.50000ml of M5519 + 12.50000ml of M5806 + 12.50000ml of M5819 + 12.50000ml of M6128 + 13.75000ml of M5697 + 14.50000ml of M5298 + 14.50000ml of M5496 + 14.50000ml of M5658 + 2.00000ml of M5513 + 22.50000ml of M5497 + 22.50000ml of M6127 + 5.00000ml of M5296 + 5.00000ml of M5393 + 5.00000ml of M5802 + 5.00000ml of M5875 + 303.50000ml of MP83500 = Final Quantity: 500.000 ml

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1005	ICPAES ISM01.2(S4)	MP84060	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 250.00000ml of MP83500 + 250.00000ml of MP84059 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1007	ICPAES ISM01.2(S3)	MP84061	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 25.00000ml of MP84059 + 75.00000ml of MP83500 = Final Quantity: 100.000 ml

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1008	ICPAES ISM01.2(S2)	MP84062	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 12.50000ml of MP84059 + 87.50000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
994	ICPAES ISM01.2 S1 (CONC.)	MP84063	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.02000ml of M5815 + 0.03000ml of M5429 + 0.10000ml of M5798 + 0.10000ml of M6028 + 0.14000ml of M5799 + 0.20000ml of M5298 + 0.20000ml of M5476 + 0.20000ml of M5658 + 0.20000ml of M5801 + 0.20000ml of M5817 + 0.20000ml of M5976 + 0.20000ml of M6025 + 0.20000ml of M6030 + 0.30000ml of M6128 + 0.40000ml of M5496 + 0.50000ml of M5697 + 0.50000ml of M6023 + 0.70000ml of M5962 + 0.80000ml of M5961 + 1.00000ml of M5800 + 1.00000ml of M6021 + 1.20000ml of M5802 + 1.20000ml of M5819 + 10.00000ml of M5497 + 10.00000ml of M5519 + 10.00000ml of M5806 + 10.00000ml of M6127 + 2.00000ml of M5942 + 4.00000ml of M6032 + 34.24000ml of MP83500 = Final Quantity: 100.000 ml

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1003	ICPAES ISM01.2 S1	MP84064	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.50000ml of MP84063 + 99.50000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2054	ICV-ICPAES	MP84065	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.50000ml of M5218 + 0.50000ml of M5472 + 0.50000ml of M5816 + 0.50000ml of M5820 + 0.50000ml of M5970 + 10.00000ml of M5295 + 87.50000ml of MP83500 = Final Quantity: 100.000 ml

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Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP84066	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 25.00000ml of M5130 + 225.00000ml of MP83500 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
905	ICP AES ICSAB SOLN	MP84067	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 25.00000ml of M5130 + 25.00000ml of M5223 + 200.00000ml of MP83500 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1119	ICPAES ISM01.2(CCV)	MP84069	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.75000ml of M5497 + 0.75000ml of M6127 + 1.22500ml of M5496 + 1.25000ml of M5298 + 1.25000ml of M5516 + 19.77500ml of MP83500 + 25.00000ml of MP84059 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP84071	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6126 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP84072	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 200.00000ml of M6126 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	01/31/2025	05/20/2024 / jaswal	04/20/2021 / bin	M5130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	S2-MEB711674	11/02/2026	07/01/2022 / bin	09/10/2021 / bin	M5218

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	01/31/2025	05/20/2024 / jaswal	04/20/2021 / bin	M5223

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Aluminum (Al) 10,000PPM	070622	07/06/2025	09/02/2022 / jaswal	07/12/2022 / jaswal	M5289

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV-1014	02/05/2025	08/07/2024 / jaswal	04/20/2021 / bin	M5295

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	S2-MEB711673	11/02/2026	09/19/2022 / jaswal	08/20/2022 / jaswal	M5296

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	020422	02/04/2025	05/02/2023 / jaswal	06/15/2022 / jaswal	M5298

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	072122	07/21/2025	08/07/2024 / jaswal	09/18/2022 / bin	M5390

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB714159	01/13/2027	10/12/2022 / bin	09/19/2022 / bin	M5393

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	01/14/2025 / Jaswal	03/16/2023 / jaswal	M5472

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/29/2025	03/16/2023 / jaswal	03/16/2023 / jaswal	M5473

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/29/2025	07/29/2024 / jaswal	03/16/2023 / jaswal	M5476

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5496

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	03/18/2023 / bin	03/17/2023 / bin	M5497

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5498

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	061522	06/15/2025	03/19/2023 / bin	03/17/2023 / bin	M5513

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	092122	09/21/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5515

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	022123	11/06/2025	11/06/2024 / kareem	03/17/2023 / bin	M5516

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	01/08/2024 / bin	03/17/2023 / bin	M5519

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	102623	10/26/2026	04/18/2024 / jaswal	10/27/2023 / jaswal	M5698

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	05/24/2024 / Jaswal	01/03/2024 / bin	M5769

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	120523	12/05/2026	08/07/2024 / jaswal	01/03/2024 / jaswal	M5802

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	122223	12/22/2026	08/01/2024 / Jaswal	01/03/2024 / jaswal	M5806

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57014 / Si, 1000 PPM, 125 ml	122023	12/20/2026	03/06/2024 / jaswal	02/09/2024 / jaswal	M5818

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	111623	11/16/2026	03/20/2024 / jaswal	02/09/2024 / jaswal	M5819

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/03/2024 / kareem	06/11/2024 / kareem	M5960

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/02/2024 / Jaswal	06/11/2024 / Jaswal	M5961

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL	T2-MO720876	07/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5976

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-SPK-5 / CLP Spike Standard 5	V2-MEB742037	03/12/2029	10/04/2024 / Jaswal	02/22/2024 / Jaswal	M5990

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-SPK-1 / SOIL/WATER SPIKE SOLN 1, 125mL	T2-MEB721963	07/27/2027	09/04/2024 / Jaswal	02/22/2024 / kareem	M5999

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	11/09/2026	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

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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)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1403 / Hydrogen Peroxide, 30% 1 gal	820803	05/25/2025	11/26/2024 / Eman	11/22/2024 / Eman	M6125

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	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

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

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-5
Lot Number:	V2-MEB742037
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea: Antimony,
	50 µg/mL ea: Selenium, Cadmium, Thallium,
	40 µg/mL ea: Arsenic,
	20 µg/mL ea: Lead

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.7 µg/mL	Arsenic, As	40.00 ± 0.26 µg/mL
Cadmium, Cd	49.99 ± 0.22 µg/mL	Lead, Pb	19.99 ± 0.09 µg/mL
Selenium, Se	50.00 ± 0.23 µg/mL	Thallium, Tl	50.00 ± 0.22 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 12, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6032

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

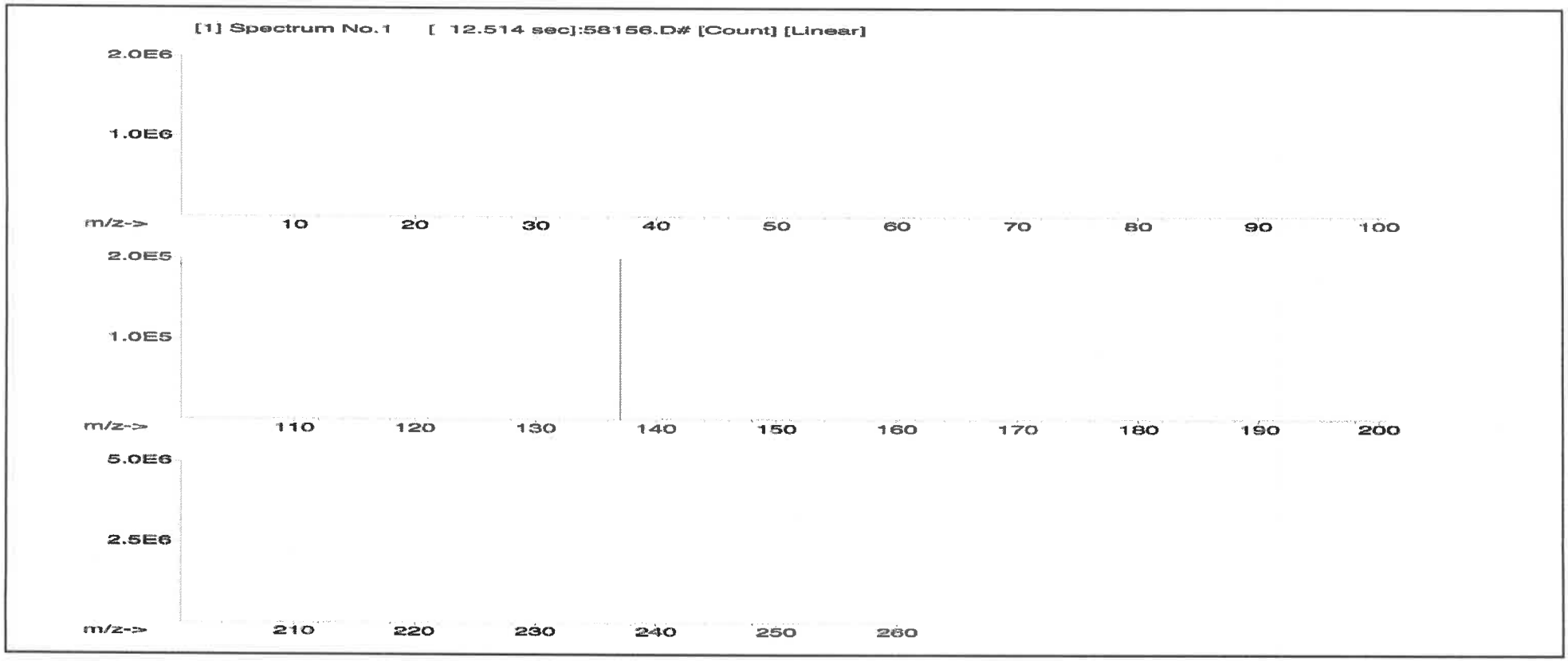
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**	**Solvent:**	24002546	Nitric Acid	
Description:	**Barium (Ba)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	010924
Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

R 8/5/24

M6028

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

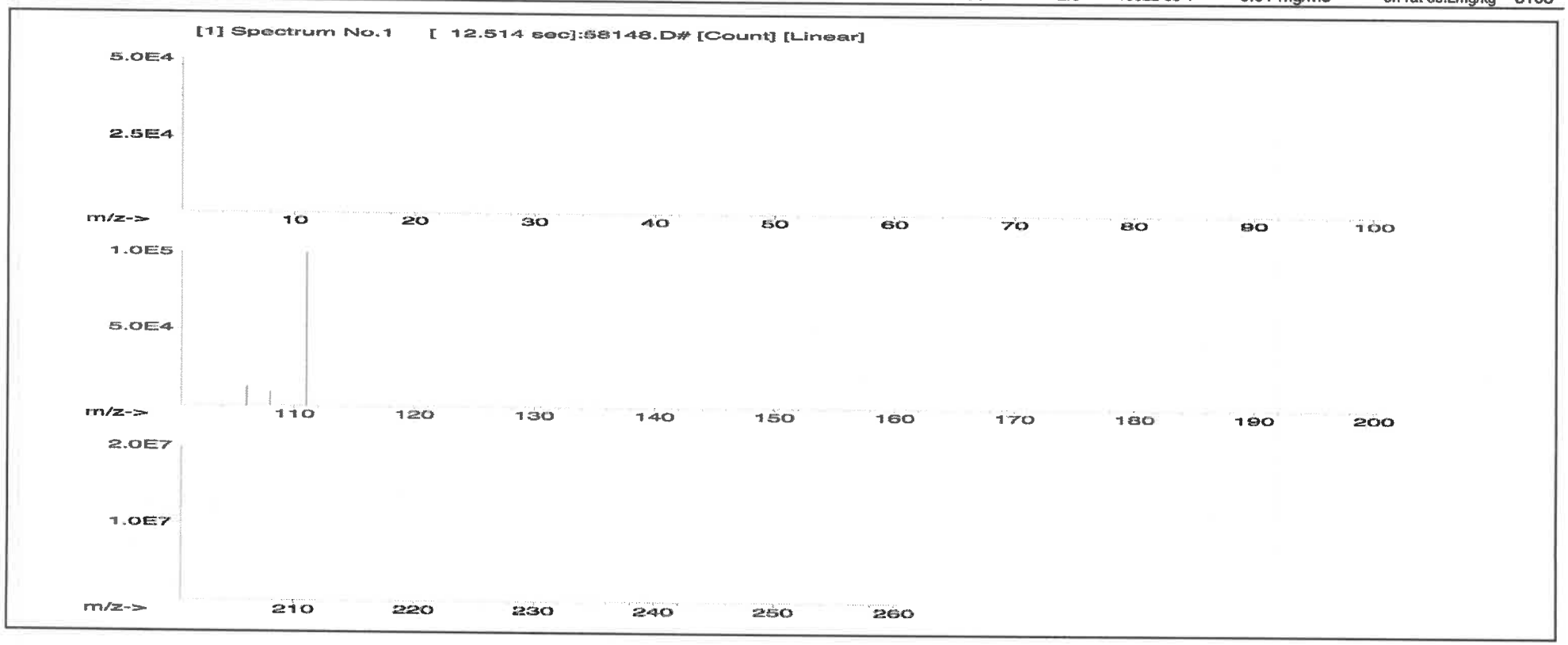
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	070124
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

M5296 OP: 09/19/2022 BH

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Christiansburg, VA 24073 USA
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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	S2-MEB711673
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 6 µg/mL**	**Molybdenum, Mo**	**1 000 ± 6 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 6 µg/mL**
Titanium, Ti	**1 000 ± 7 µg/mL**		

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**2 000 ± 7 µg/mL**	**Barium, Ba**	**2 000 ± 9 µg/mL**
Beryllium, Be	**50.00 ± 0.26 µg/mL**	**Calcium, Ca**	**5 000 ± 22 µg/mL**
Chromium, Cr	**200.0 ± 1.0 µg/mL**	**Cobalt, Co**	**500.0 ± 2.4 µg/mL**
Copper, Cu	**250.0 ± 1.0 µg/mL**	**Iron, Fe**	**1 000 ± 4 µg/mL**
Magnesium, Mg	**5 000 ± 20 µg/mL**	**Manganese, Mn**	**500.0 ± 2.0 µg/mL**
Nickel, Ni	**500.0 ± 2.2 µg/mL**	**Potassium, K**	**5 000 ± 19 µg/mL**
Silver, Ag	**250.0 ± 1.1 µg/mL**	**Sodium, Na**	**5 000 ± 18 µg/mL**
Vanadium, V	**499.7 ± 2.2 µg/mL**	**Zinc, Zn**	**500.0 ± 2.2 µg/mL**

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

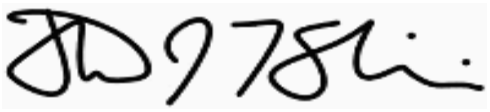
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB714159
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

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4.0 TRACEABILITY TO NIST

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- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

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- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

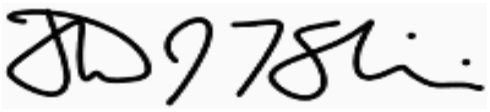
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 8/15/24 M6025

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

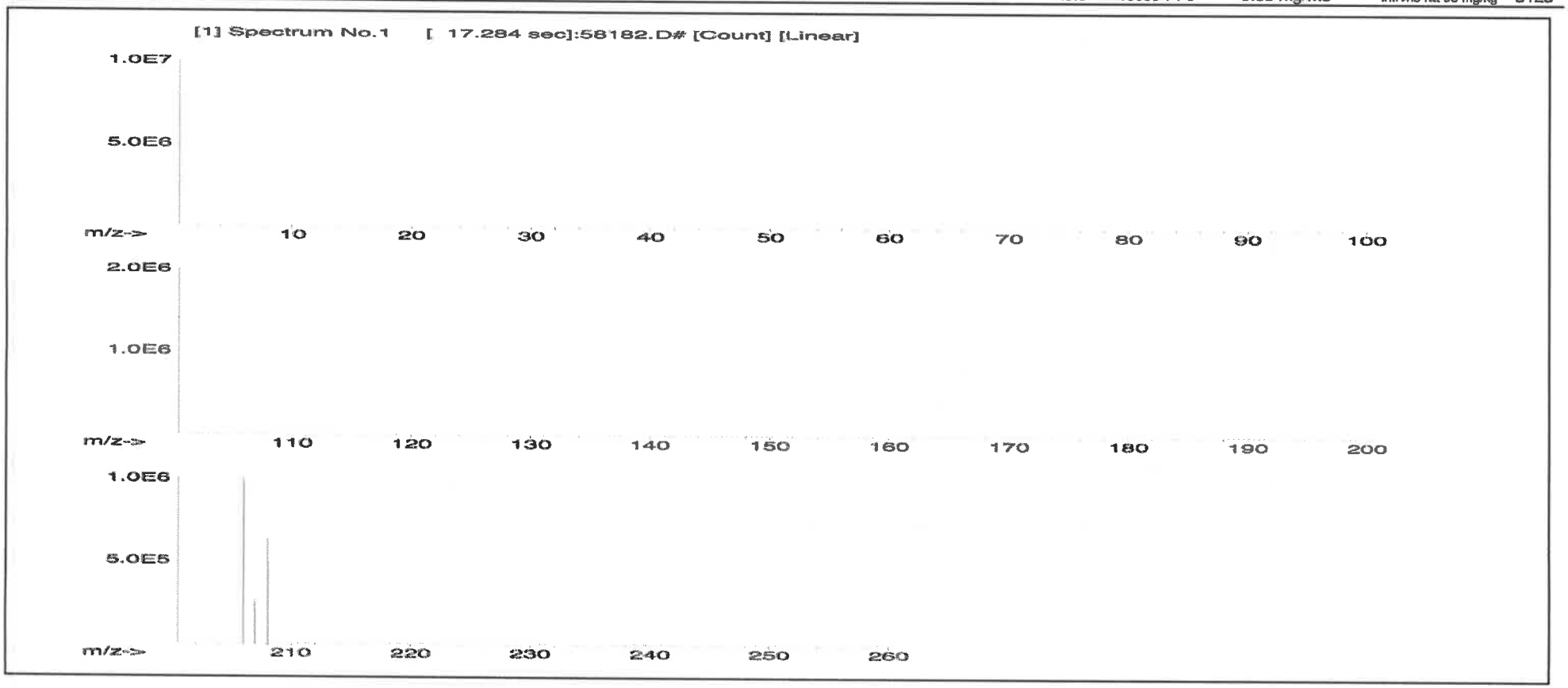
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

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inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-QC-4
Lot Number:	S2-MEB711674
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 7 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 001 ± 6 µg/mL**		

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

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4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

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M5289 R: 07/12/22 (BH)

Certified Reference Material CRM

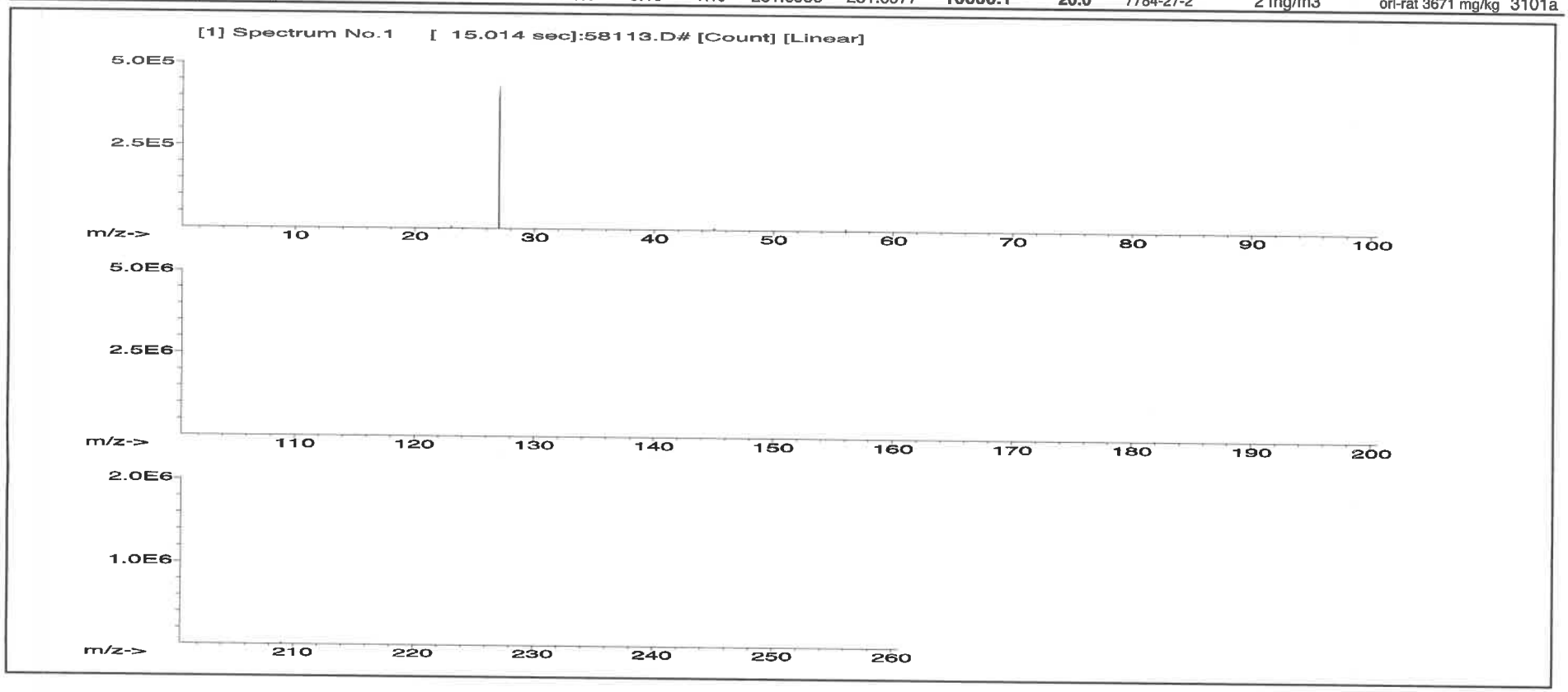
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**58113**			**Lot #**	
Lot Number:	**070622**		**Solvent:**	20370011	Nitric Acid
Description:	**Aluminum (Al)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	070625				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALD012021A1	10000	99.999	0.10	7.10	281.6956	281.6977	**10000.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	T	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

M5291
M5292
M5293
M5294
M5295

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 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, use a 100-fold dilution by pipetting 1 mL of the ICV5 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, use a 100-fold dilution by pipetting 1 mL of the ICV6 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	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

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

SJ 6/15/22

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Certified Reference Material CRM

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 020422
Description: Iron (Fe)

M5298

Expiration Date: 020425
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

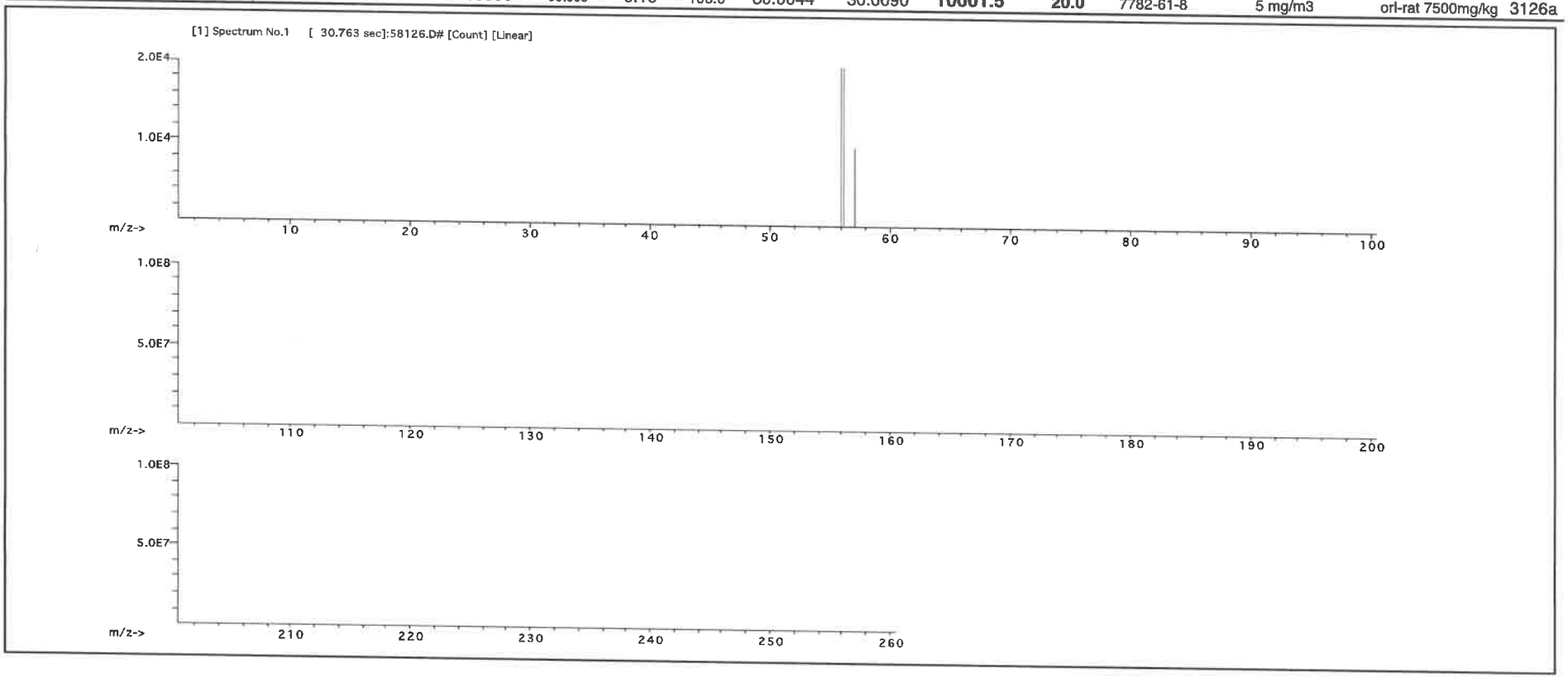
	Lot #		
Solvent:	20370011	Nitric Acid	
5.0%	150.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito
Formulated By: Giovanni Esposito 020422

Pedro Rentas
Reviewed By: Pedro L. Rentas 020422

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron(III) nitrate nonahydrate (Fe)	IN346	221035107	10000	99.999	0.10	100.0	30.0044	30.0090	**10001.5**	**20.0**	7782-61-8	5 mg/m3	orl-rat 7500mg/kg	3126a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.5	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 09/08/22 (BH)

Certified Reference Material CRM

M5387 . M5389 . M5390 . M5391 . M5392

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

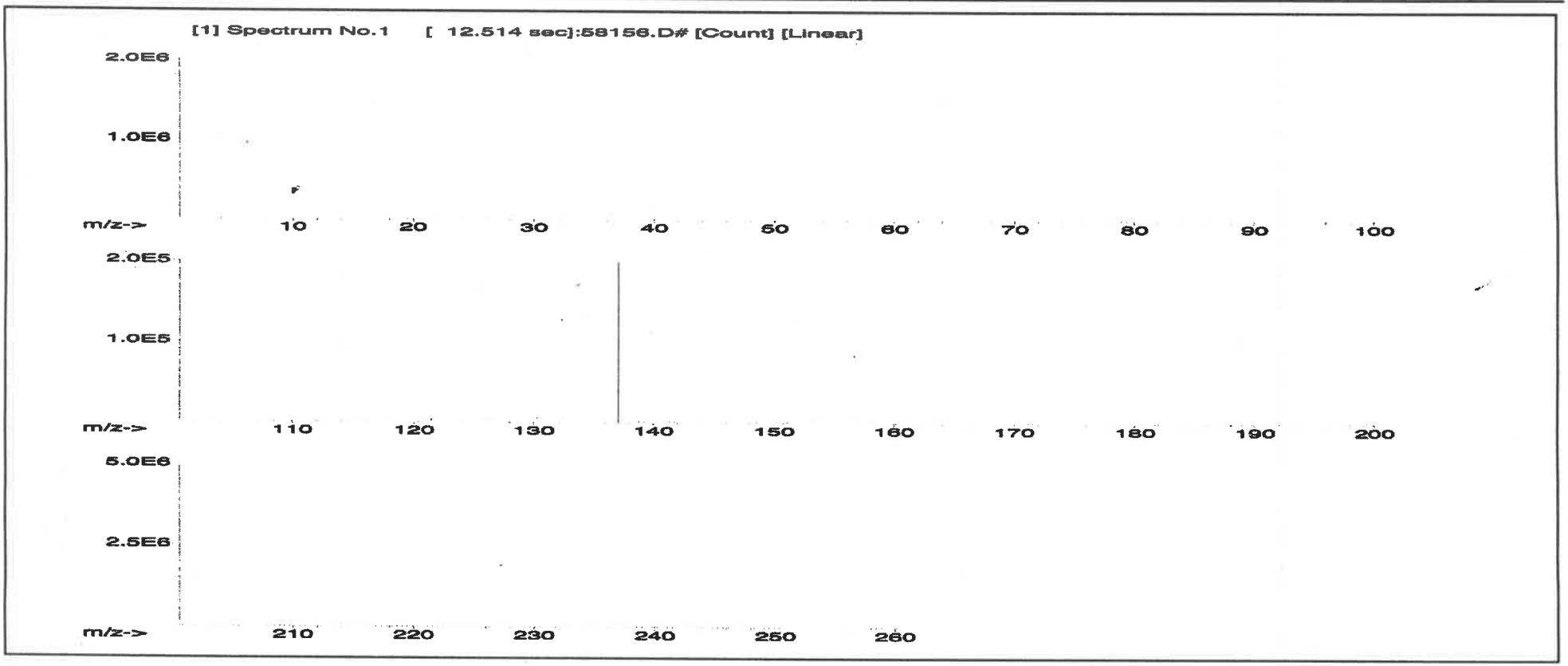
CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**57056**	**Solvent:**	20510011	Nitric Acid
Lot Number:	**072122**			
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	072125			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	072122
Reviewed By:	Pedro L. Rentas	072122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82426	**1000.0**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5429 R1 01/26/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

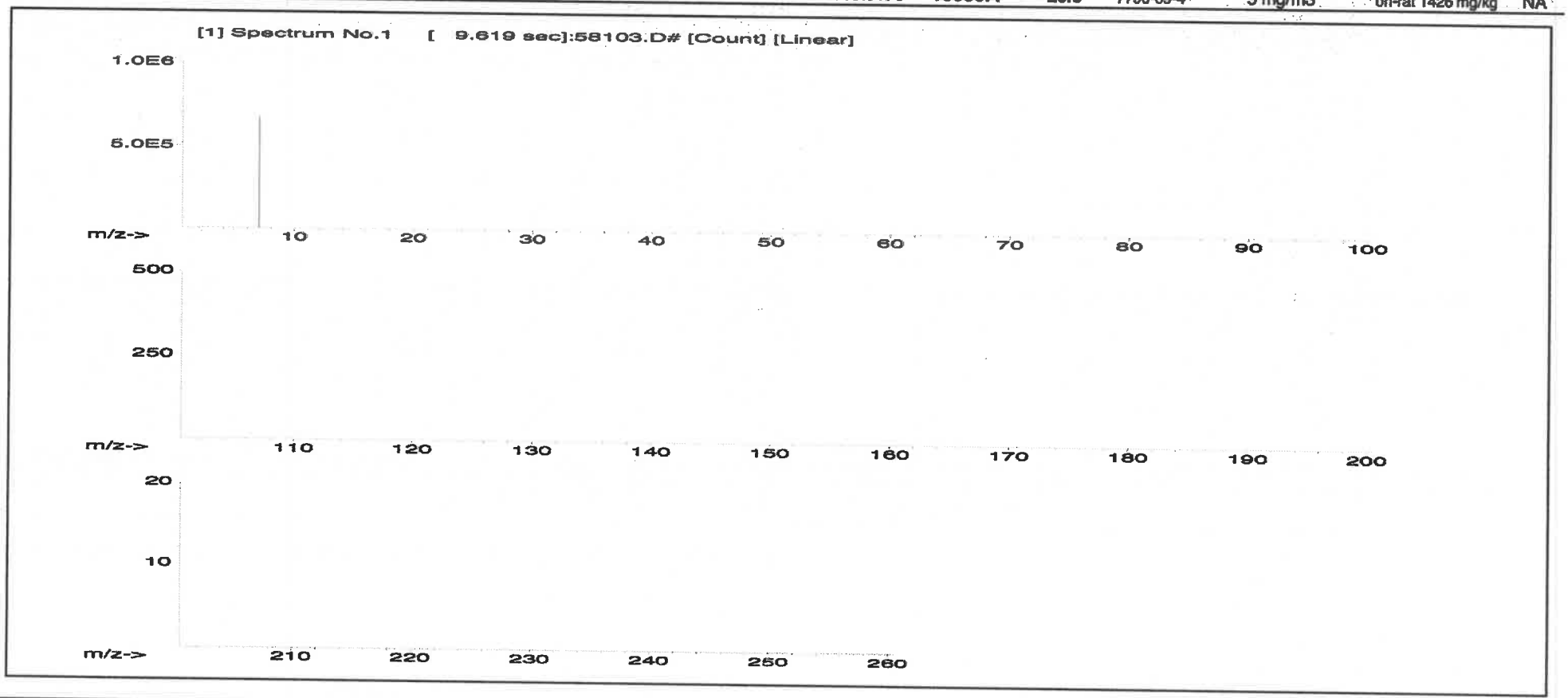
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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IN5497 - IN5498 R: 03/17/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

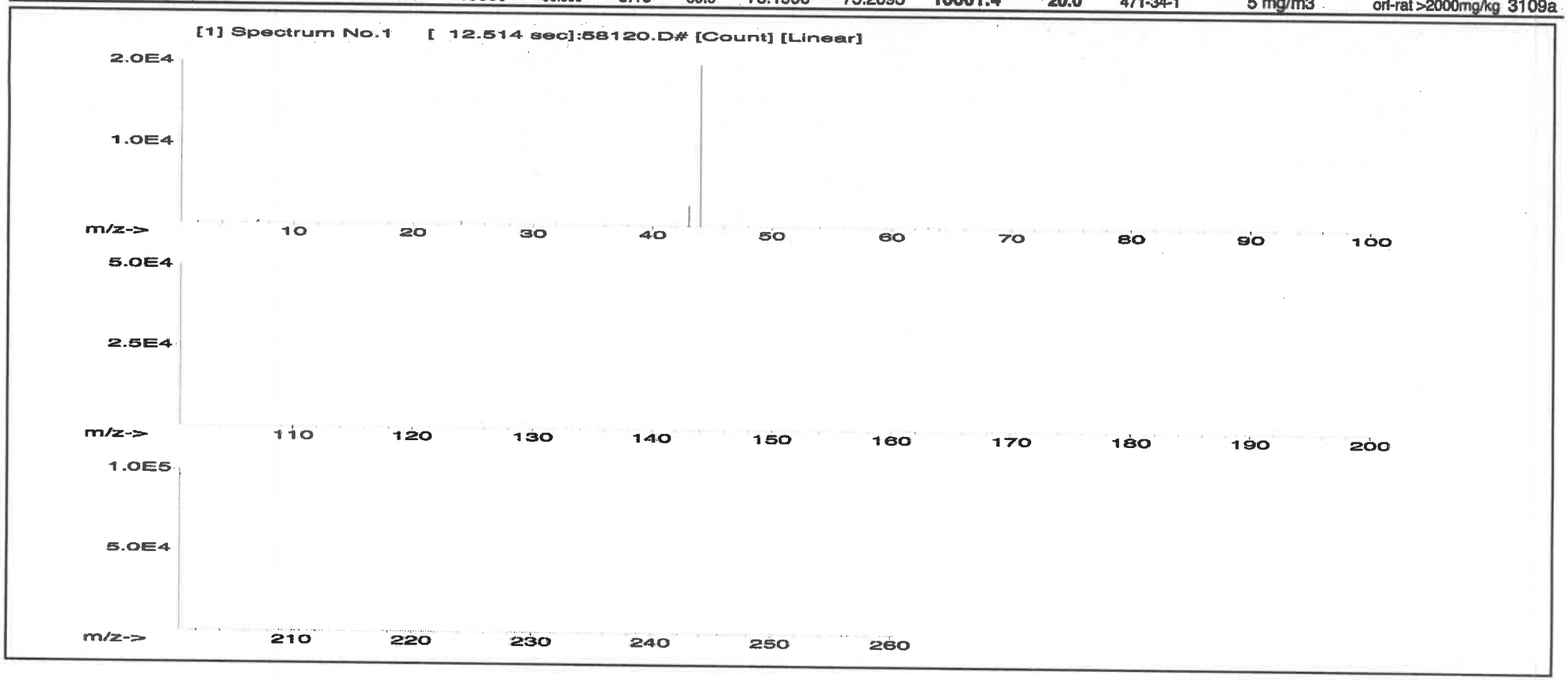
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	031523
Reviewed By:	Pedro L. Rentas	031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

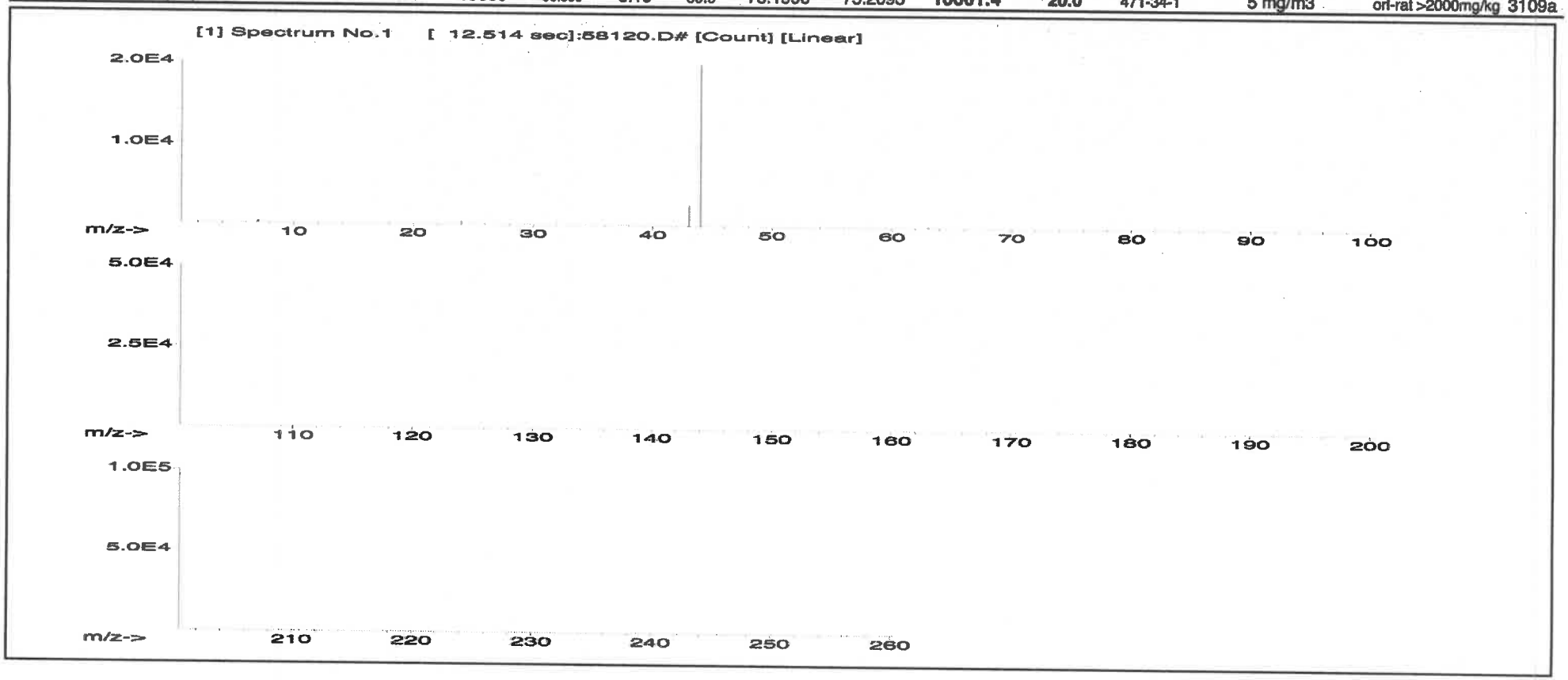
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.058 Flask Uncertainty

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 031523

Pedro Rentas
Reviewed By: Pedro L. Rentas 031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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MS513 R:03/17/23 BE

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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 061522
Description: Lead (Pb)

Expiration Date: 061525
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

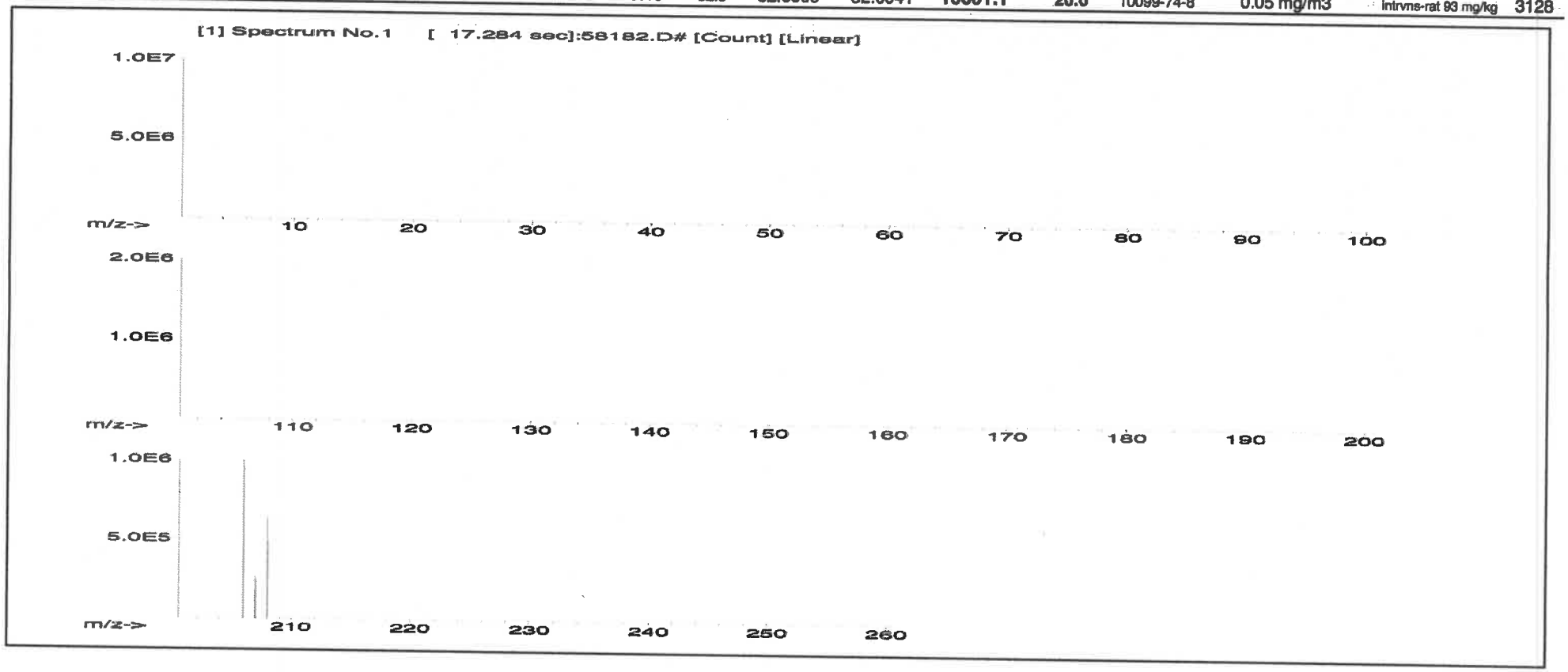
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	061522
Reviewed By:	Pedro L. Rentas	061522

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0041	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	Intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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M5514 , M5515 R: 03/17/23

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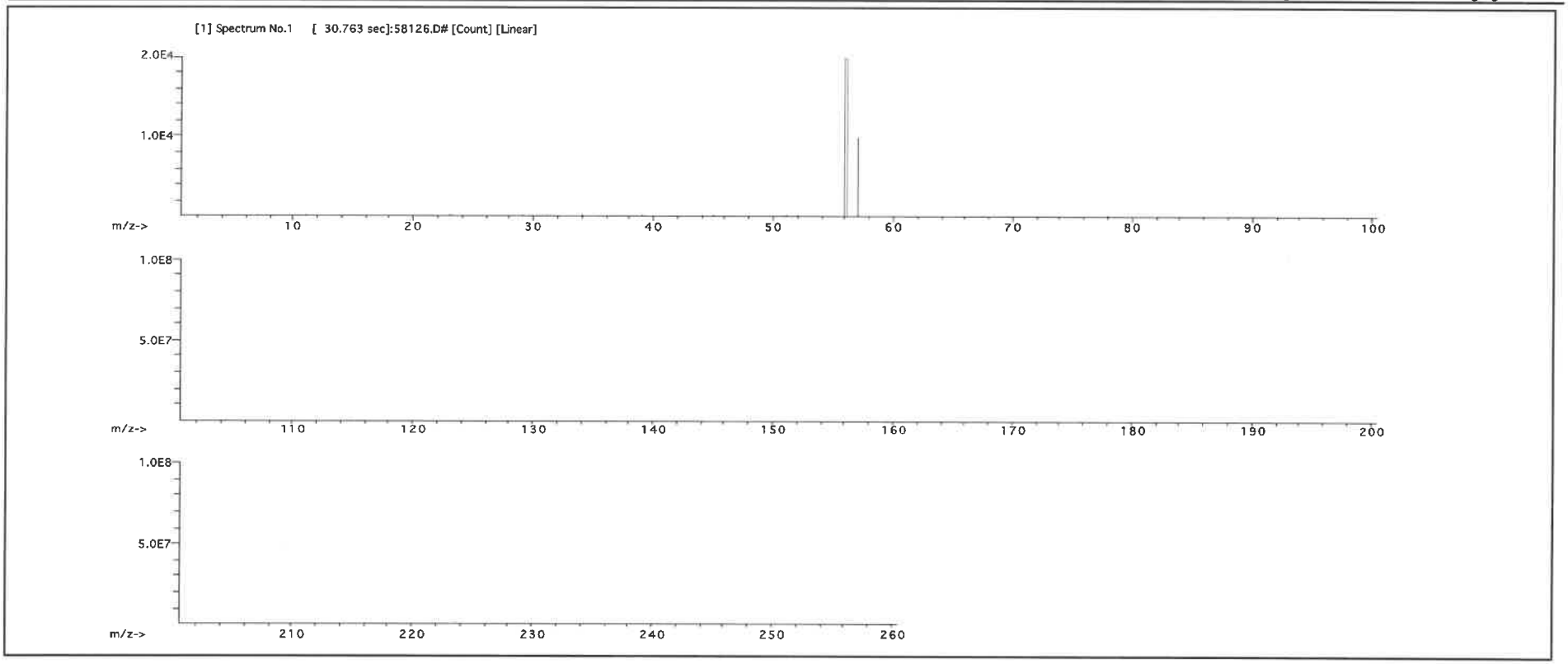
CERTIFIED WEIGHT REPORT:

Part Number:	**58126**		**Lot #**		
Lot Number:	**092122**	**Solvent:**	20510011	Nitric Acid	
Description:	**Iron (Fe)**		7.0%	350.0 (mL)	Nitric Acid
Expiration Date:	092125				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	092122
Reviewed By:	Pedro L. Rentas	092122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2224912-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.05
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M516 M517 R: 03/17/22 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 022123
Description: Sodium (Na)

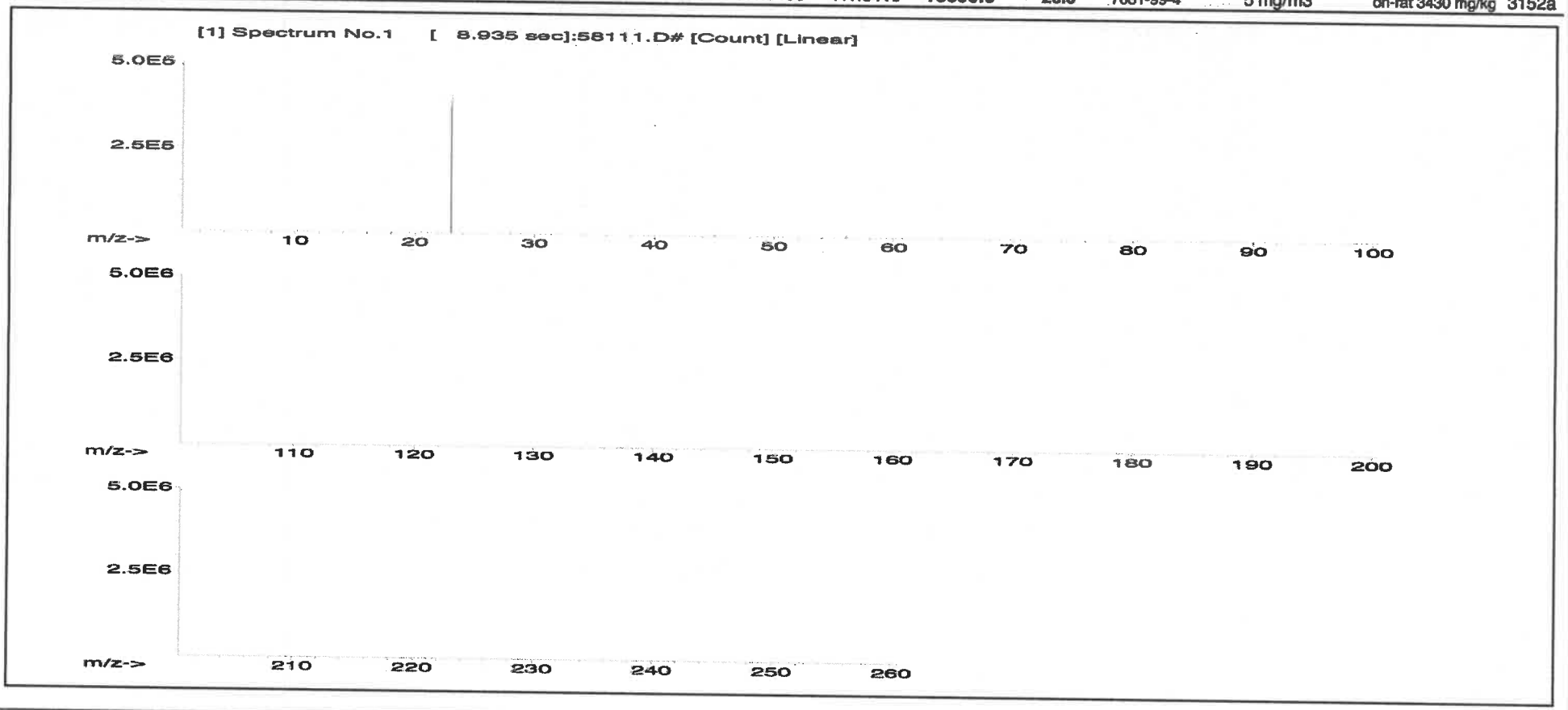
Expiration Date: 022126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	022123
Reviewed By:	Pedro L. Rentas	022123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5410	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M519. M520 (BH) R:03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

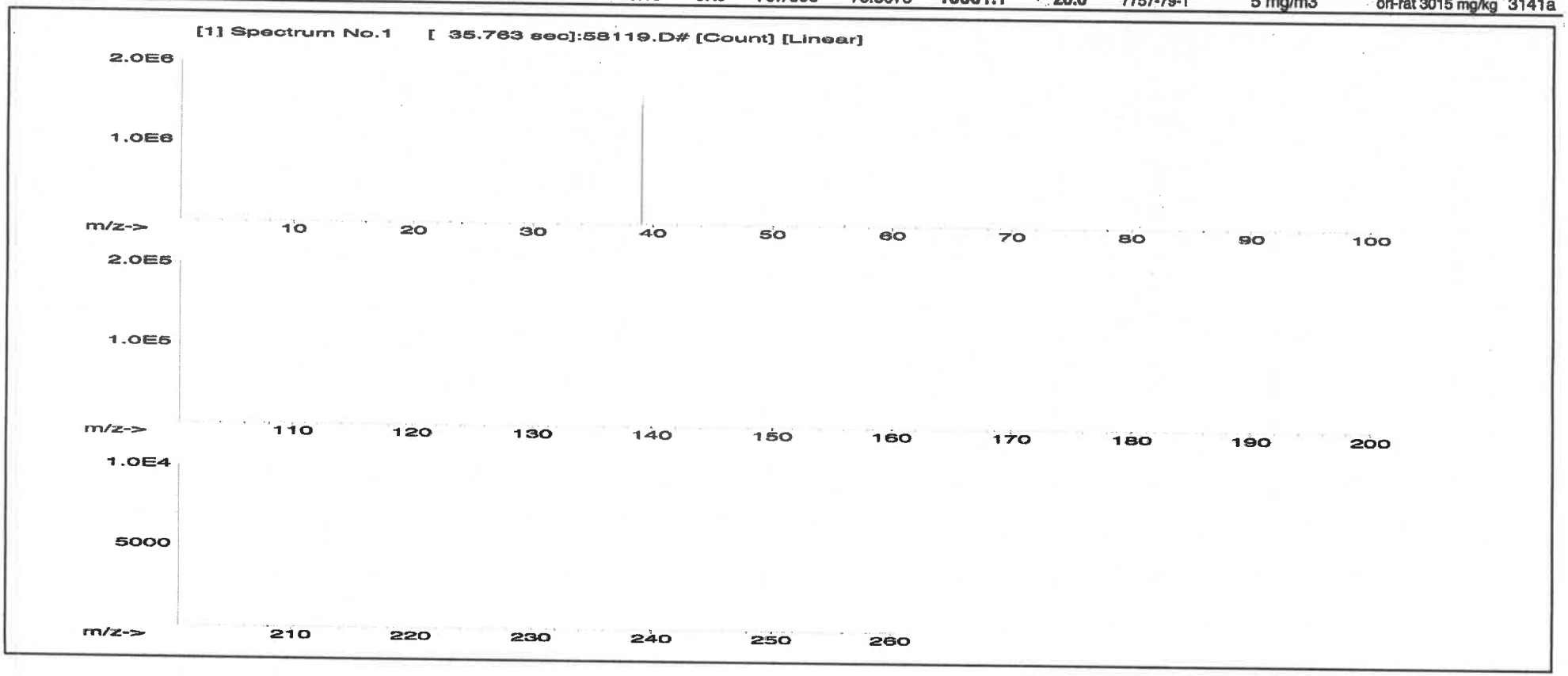
Lot #		
Solvent: 20510011		Nitric Acid
2%	60.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5658 R ! 8/25/23

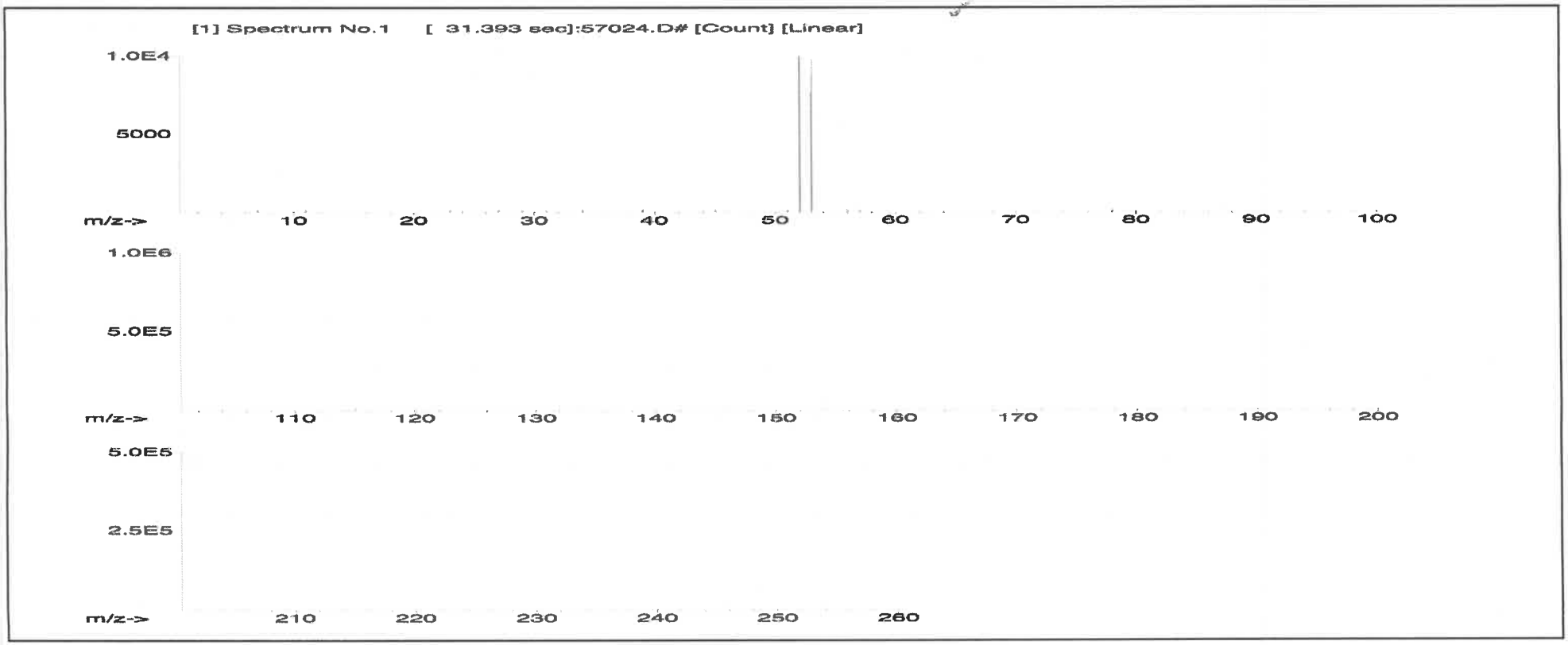
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5697 R: 10/27/23

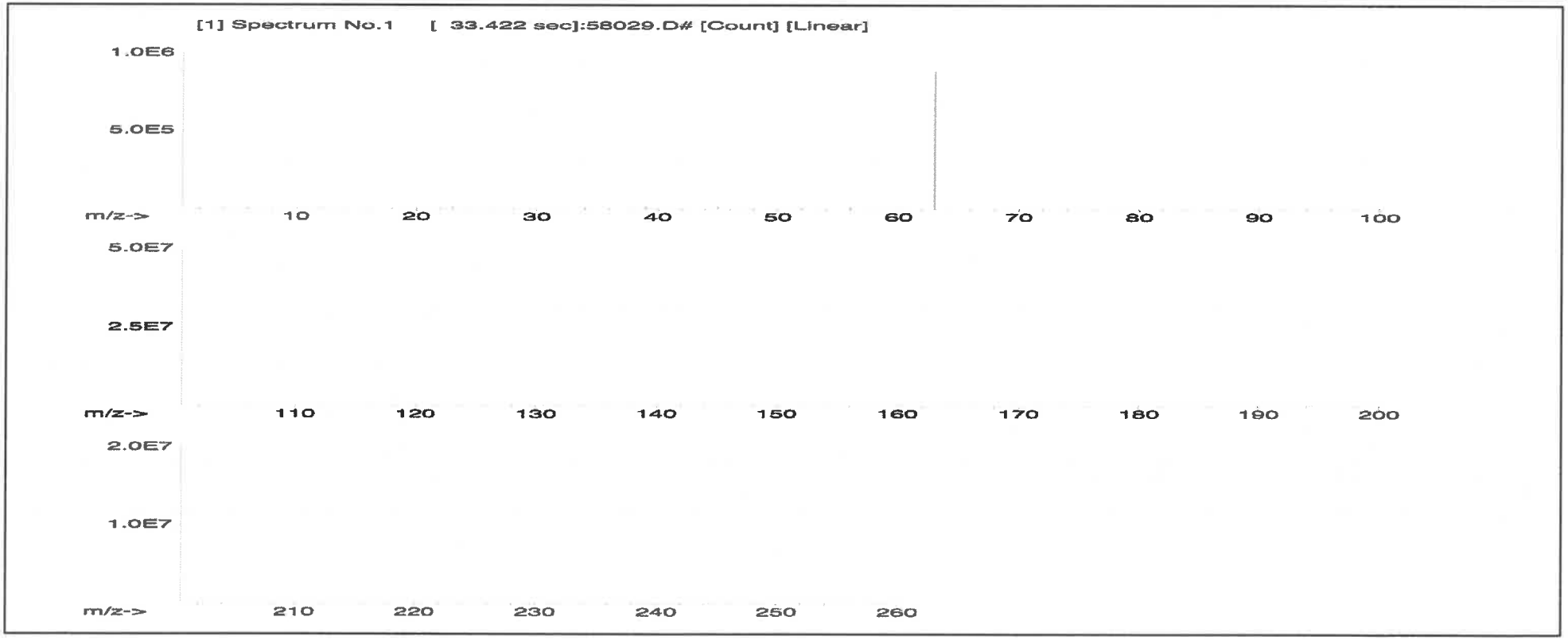
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5648 R: 10/27/23

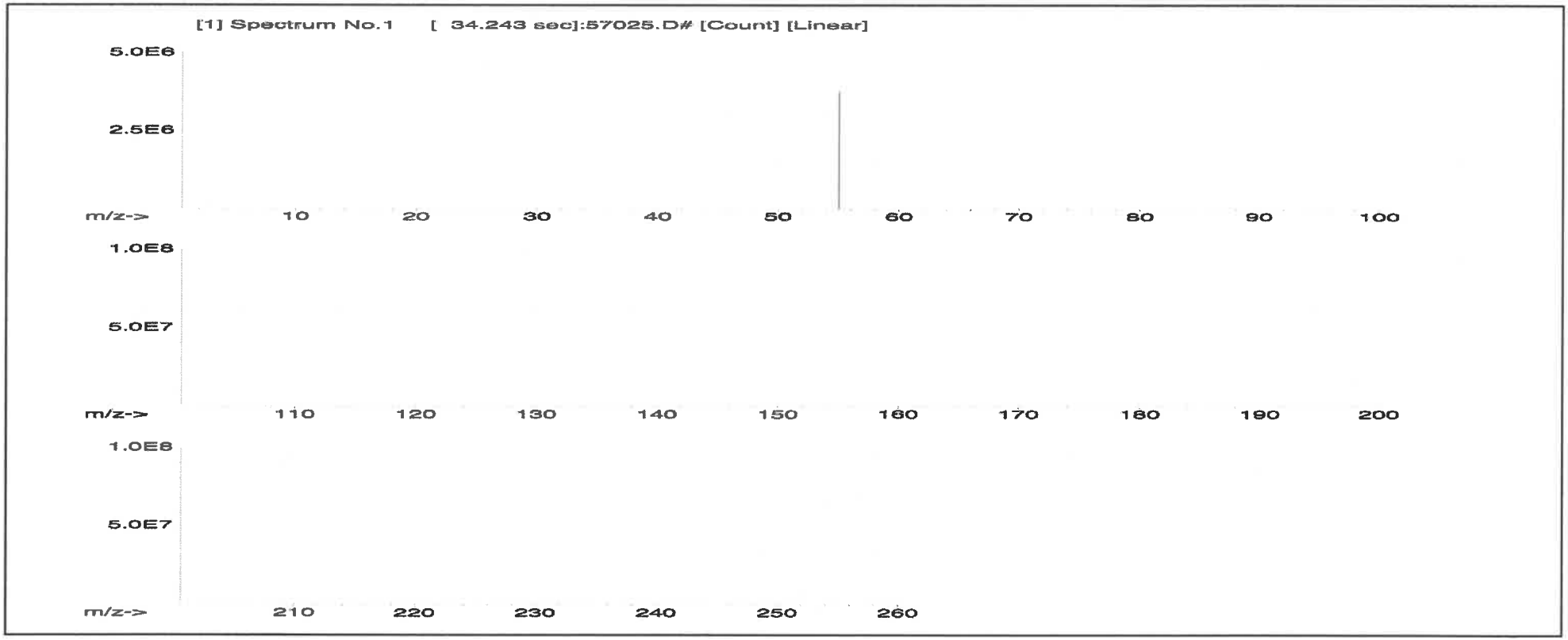
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58025**	24002546	Nitric Acid	
Lot Number:	**102623**			
Description:	**Manganese (Mn)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	102626			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102623
Reviewed By:	Pedro L. Rentas	102623

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate tetrahydrate (Mn)	58125	071123	0.1000	300.0	0.084	1000	10000.1	**1000.0**	**2.1**	20694-39-7	5 mg/m3	orl-rat >300mg/kg	3132



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5768 M5769 (BP) R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

M5768, M5769 (BP) R: 1/3/24

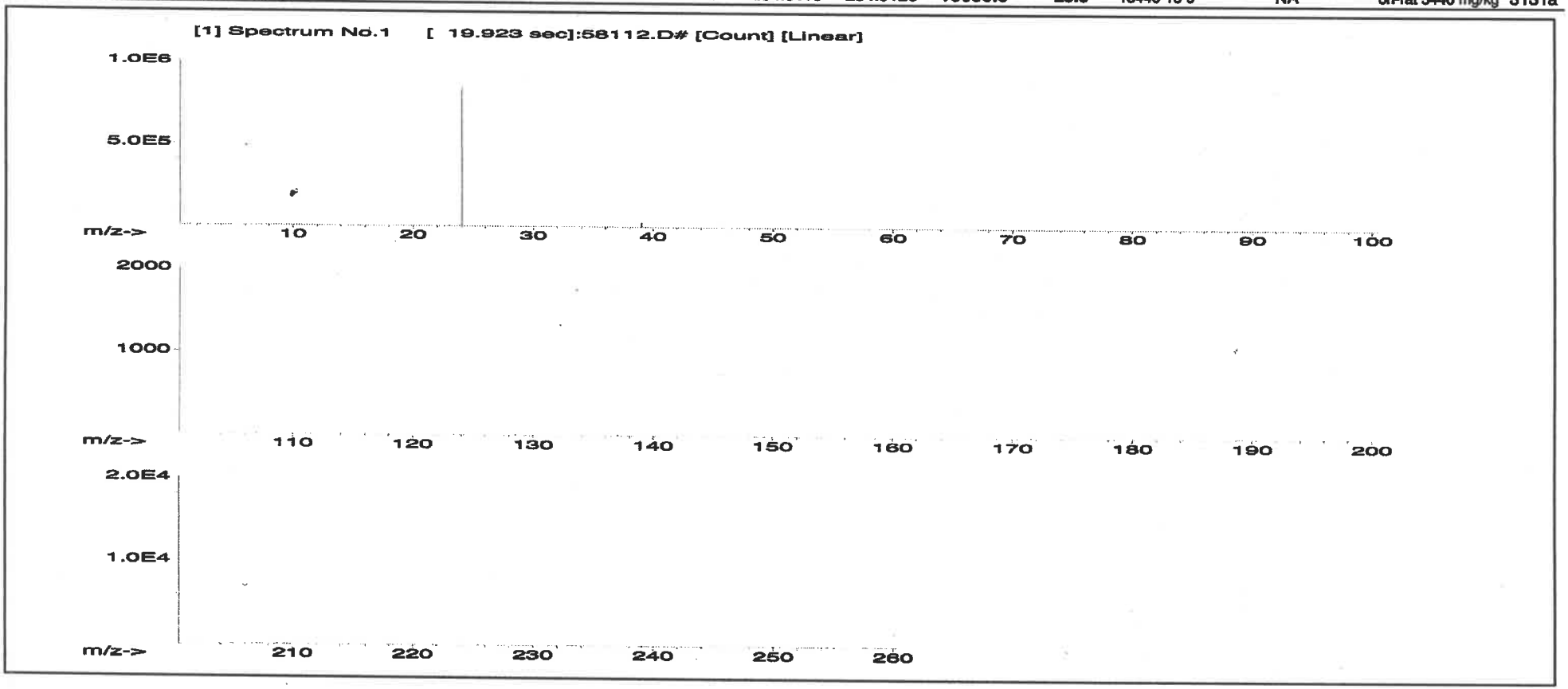
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid
		5E-05	Balance Uncertainty

Formulated By: Lawrence Barry 091823

Reviewed By: Pedro L. Rentas 091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	ori-rat 5440 mg/kg	3131a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5798

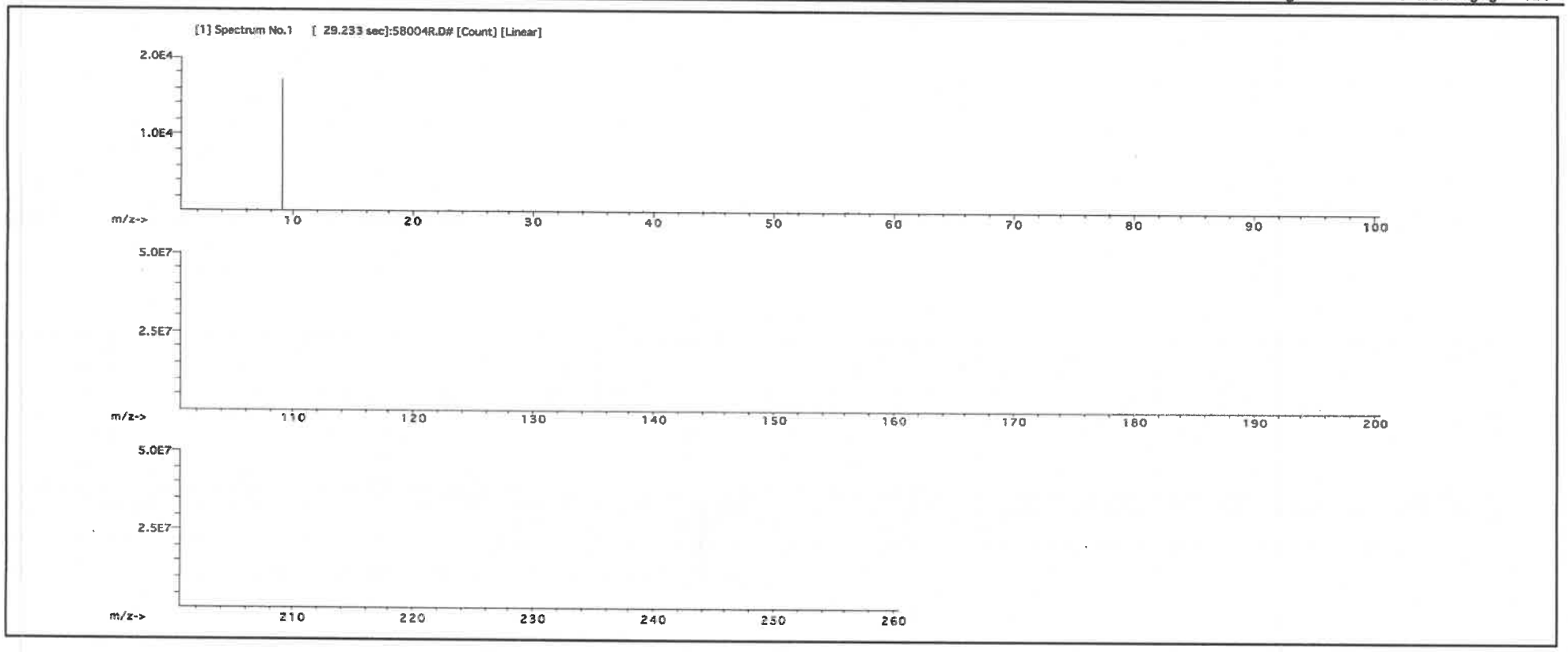
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

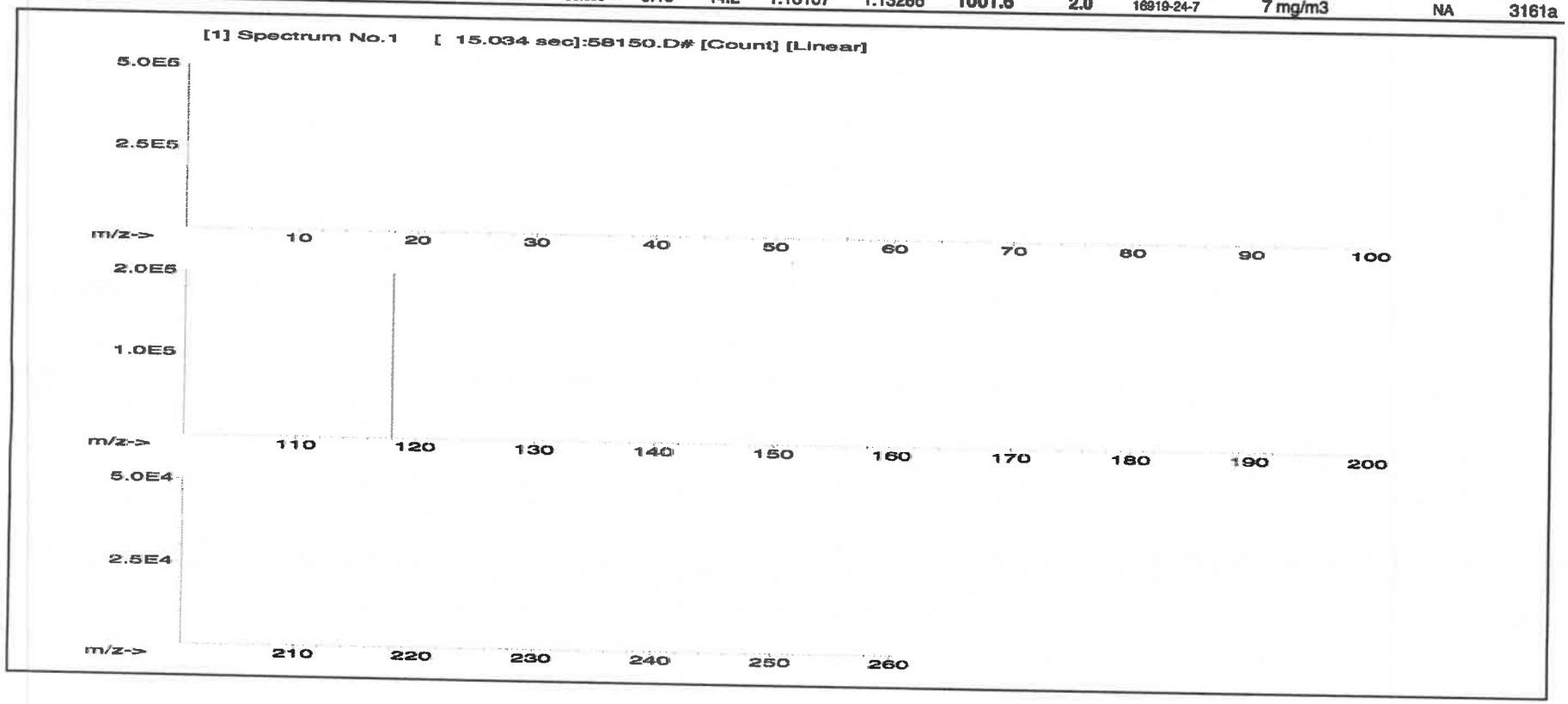
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 IM5800 BH

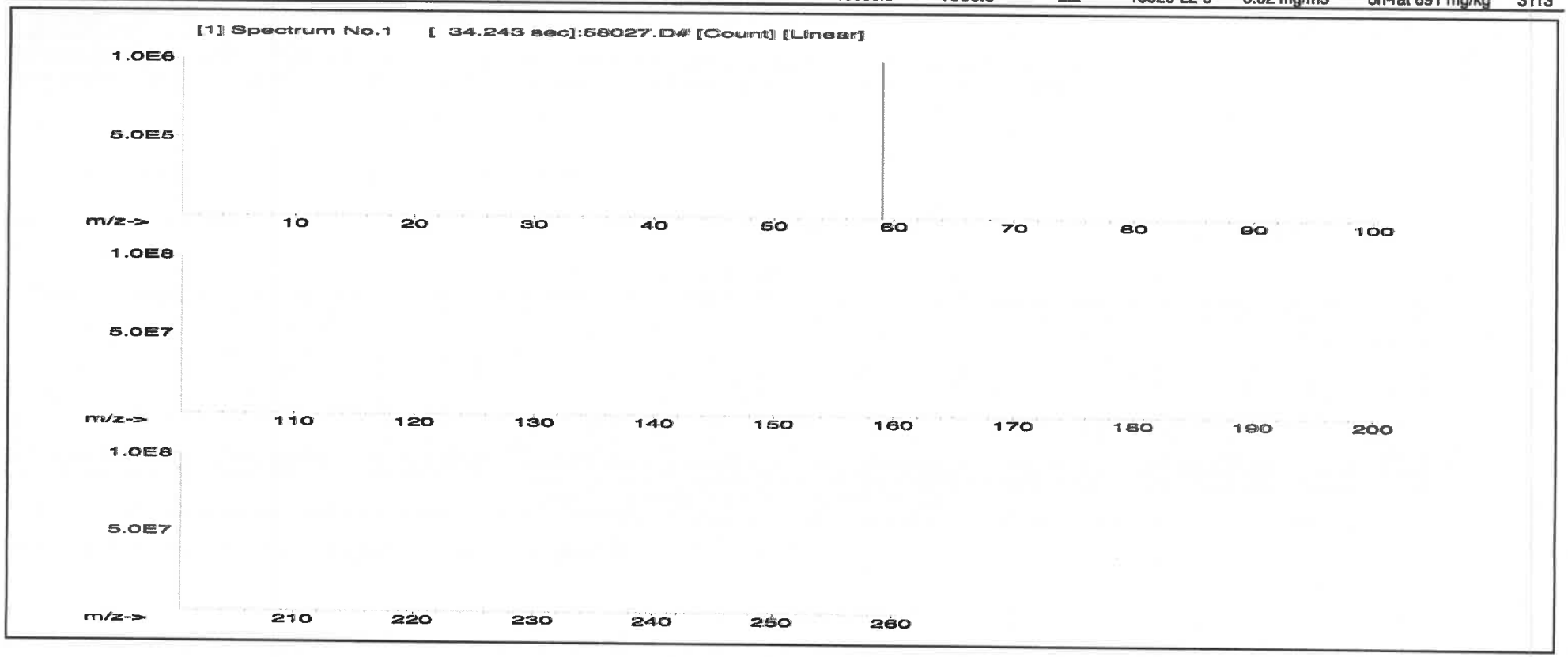
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091923
Reviewed By:	Pedro L. Rentas	091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	**2.2**	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 IM5801 BH

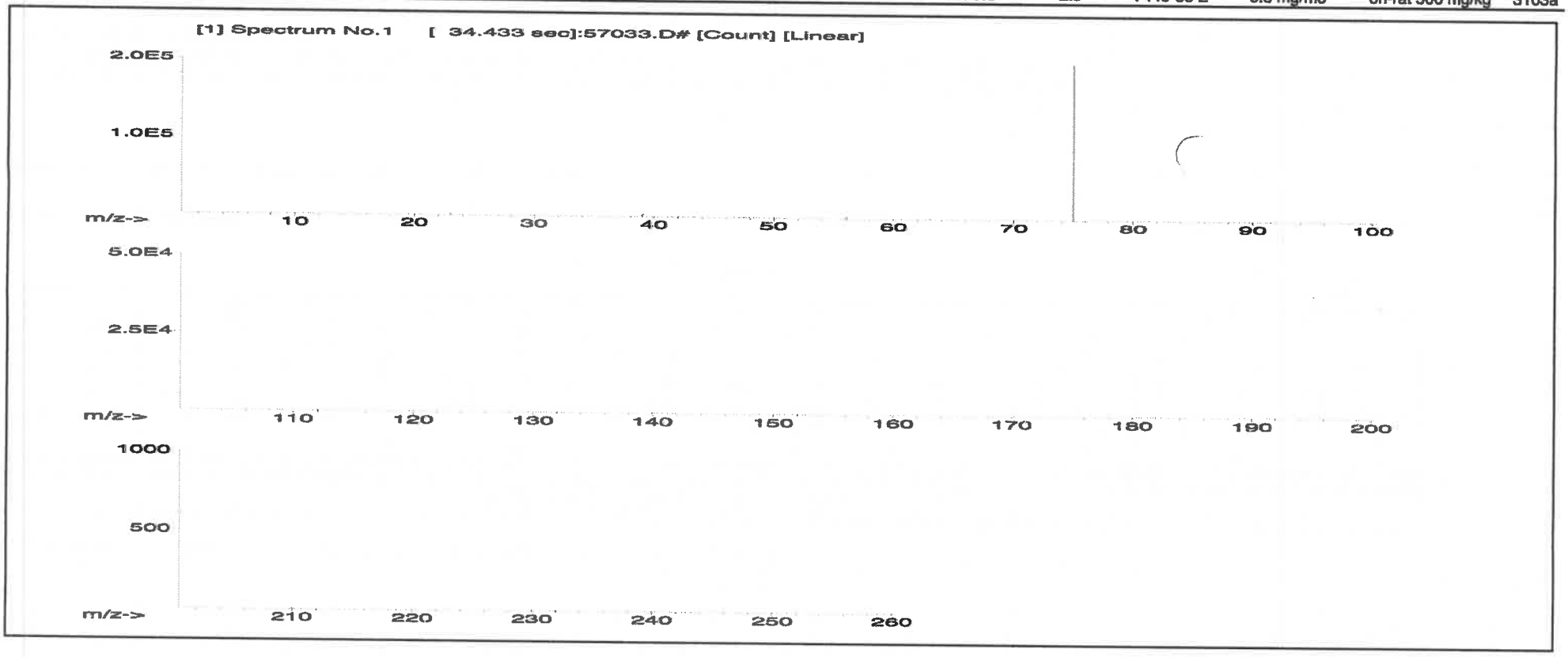
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CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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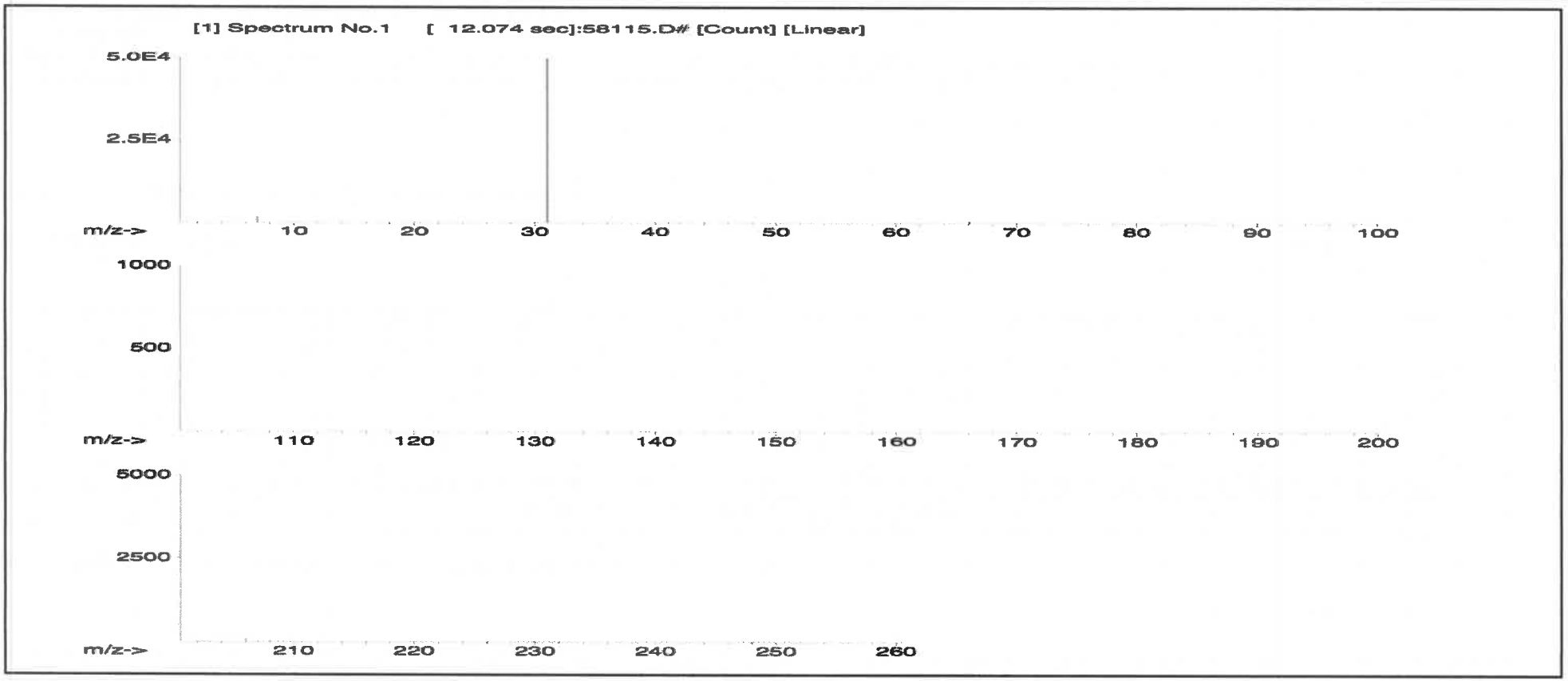
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CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57115**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**041723**			
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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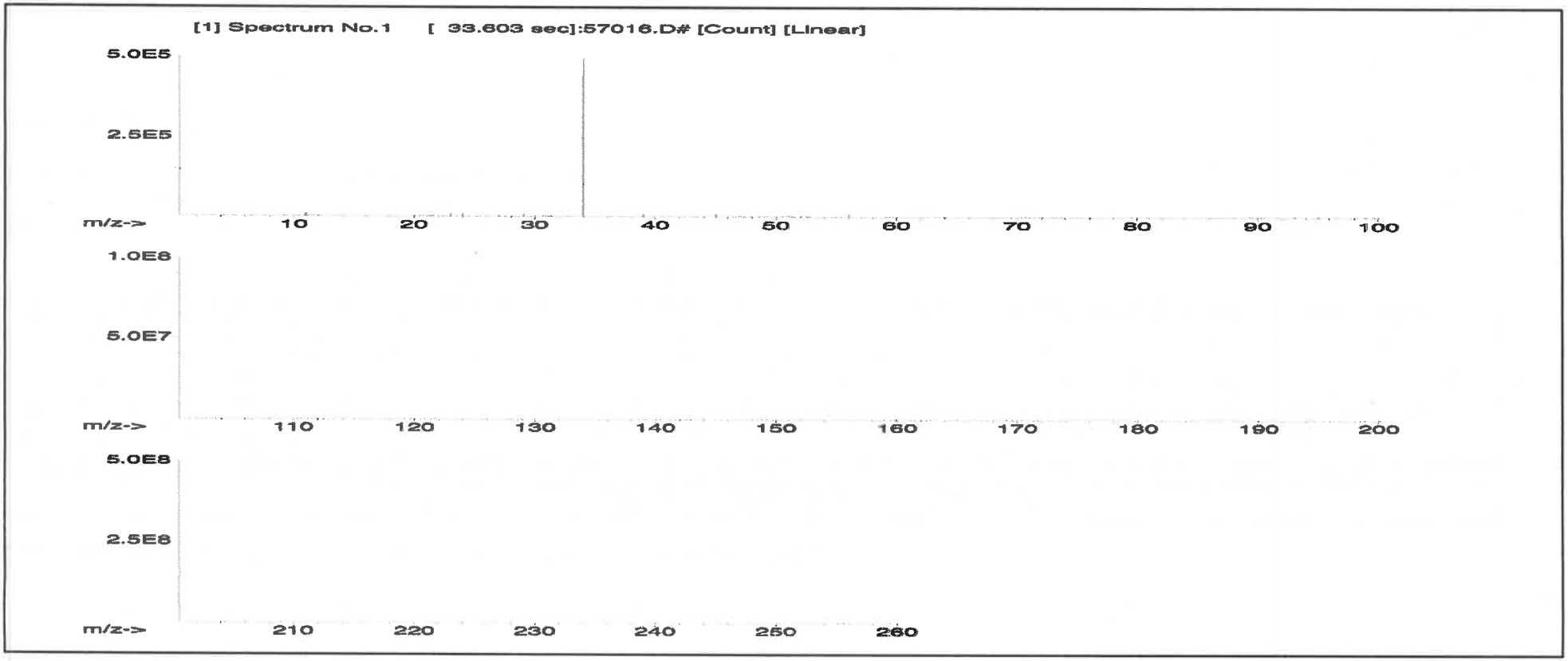
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CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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* All standards should be stored with caps tight and under appropriate laboratory conditions.
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CERTIFIED WEIGHT REPORT:

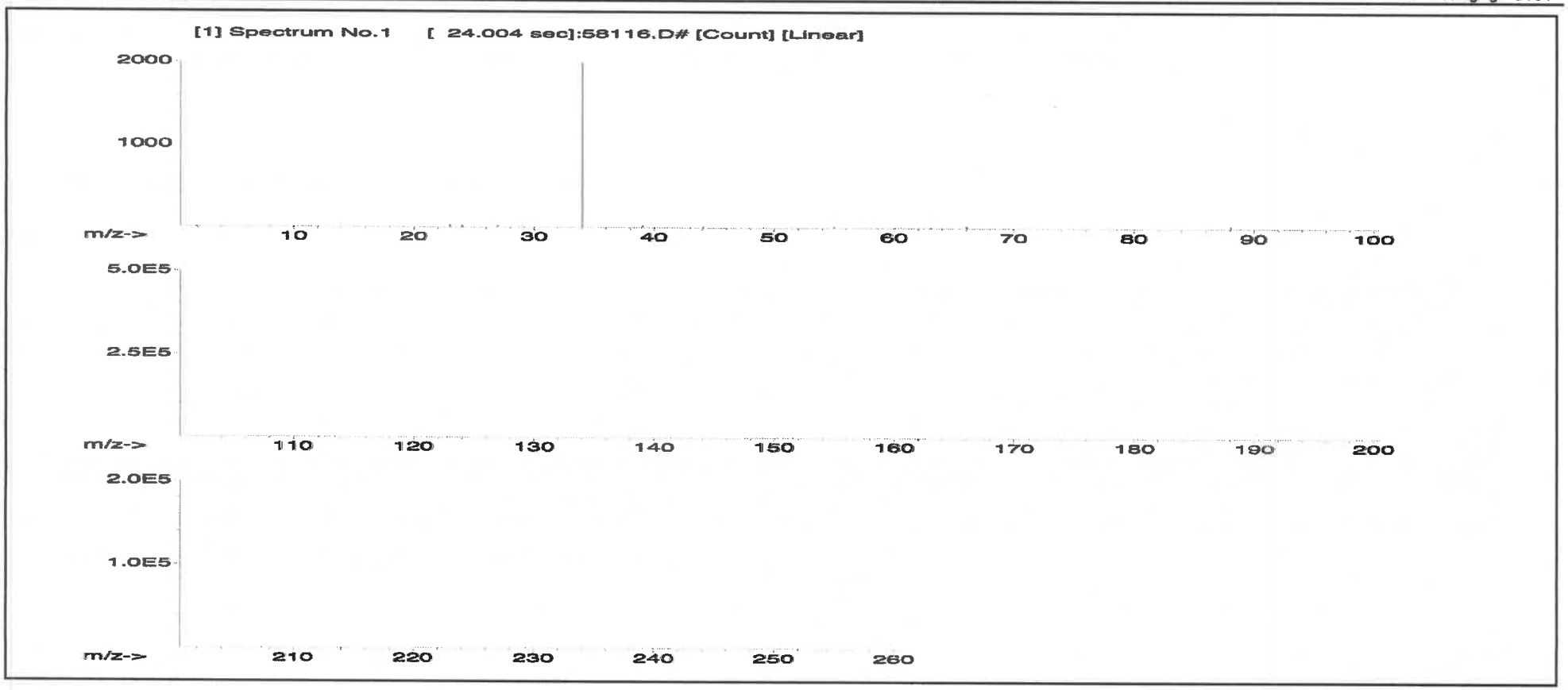
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M.5818

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57014
Lot Number: 122023
Description: Silicon (Si)

Expiration Date: 122026
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48 ± 0.058 Flask Uncertainty

Solvent: 24002546 Nitric Acid

2% 40.0 (mL) Nitric Acid

5E-05 Balance Uncertainty

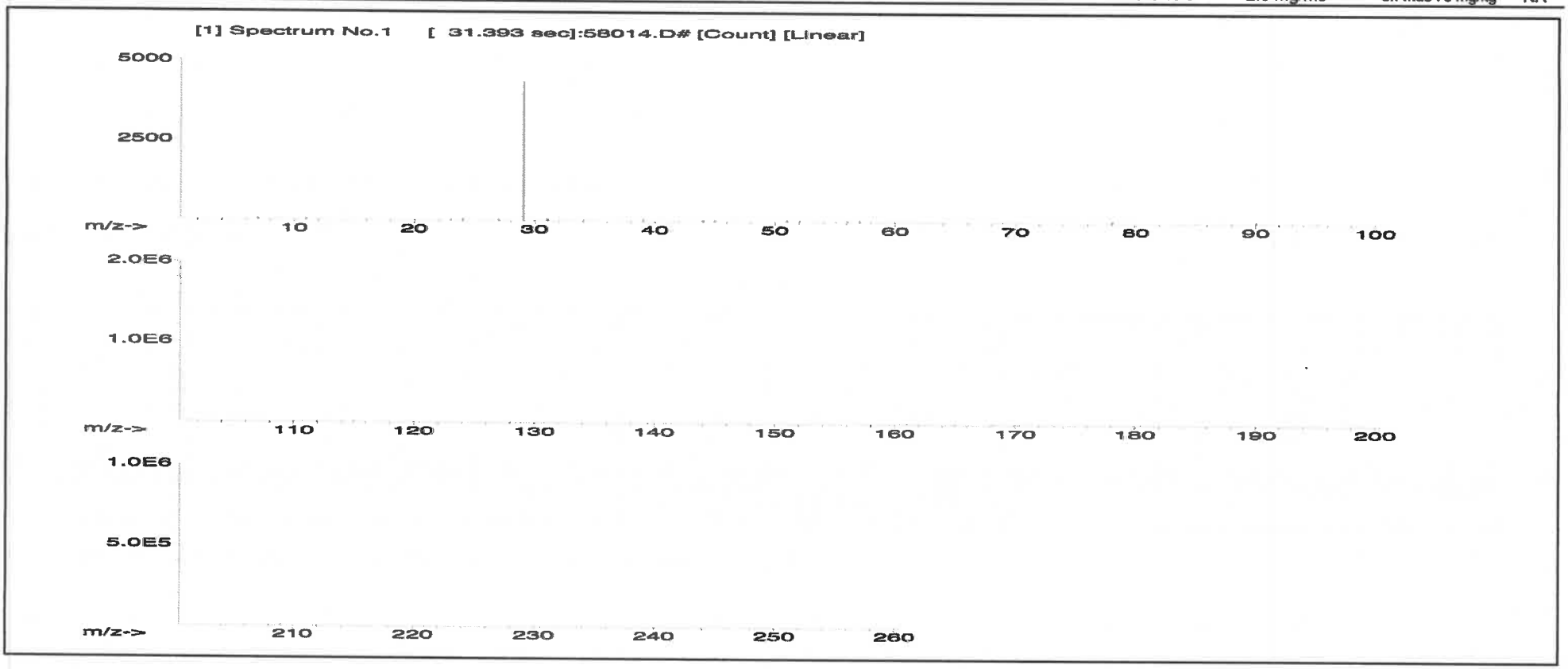
Aleah O'Brady

Formulated By: Aleah O'Brady 122023

Pedro Rentas

Reviewed By: Pedro L. Rentas 122023

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorosilicate (Si)	IN009	SID082022A1	1000	99.999	0.10	14.4	13.8854	13.8855	**1000.0**	**2.0**	16919-19-0	2.5 mg/m3	orl-mus 70 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	T	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M5819

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

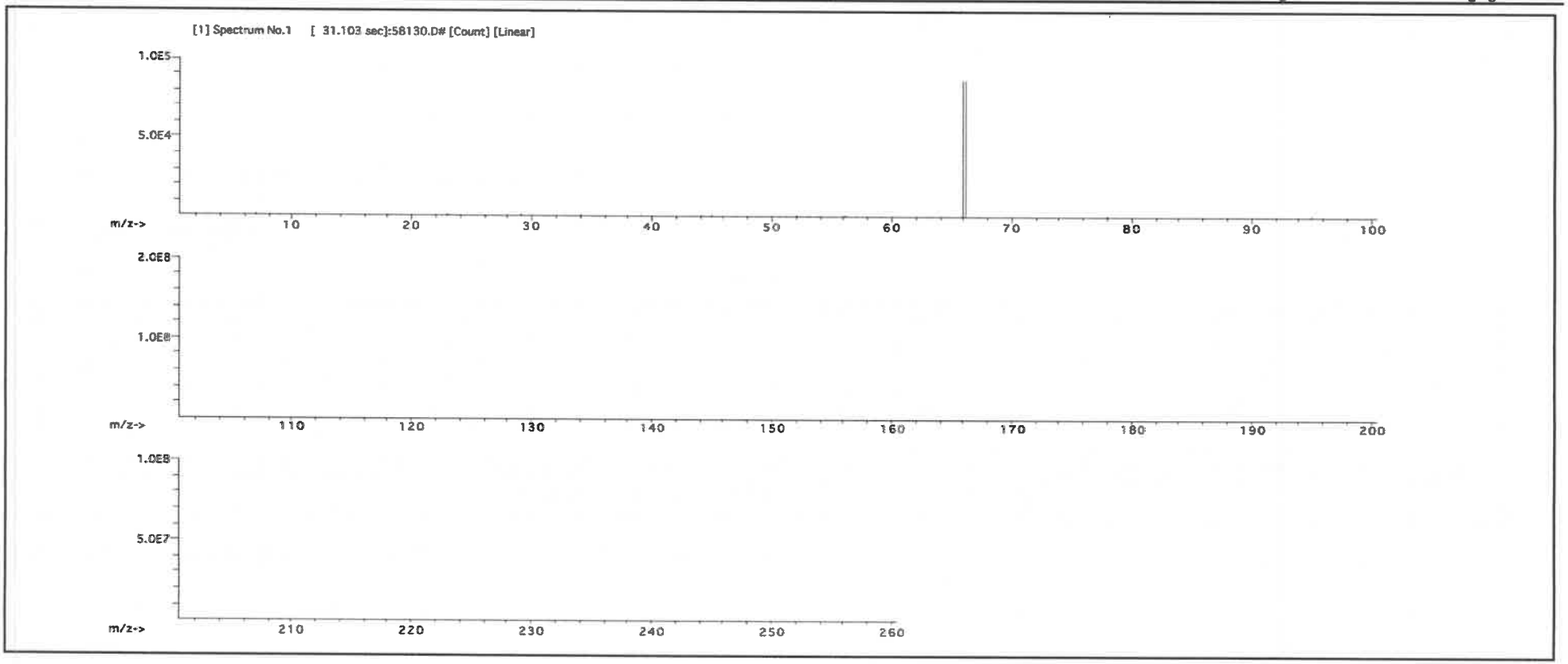
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

		Lot #		
Solvent:	24002546	Nitric Acid		
	2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	111623
Reviewed By:	Pedro L. Rentas	111623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	12.3475	12.3502	**1000.2**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M5820

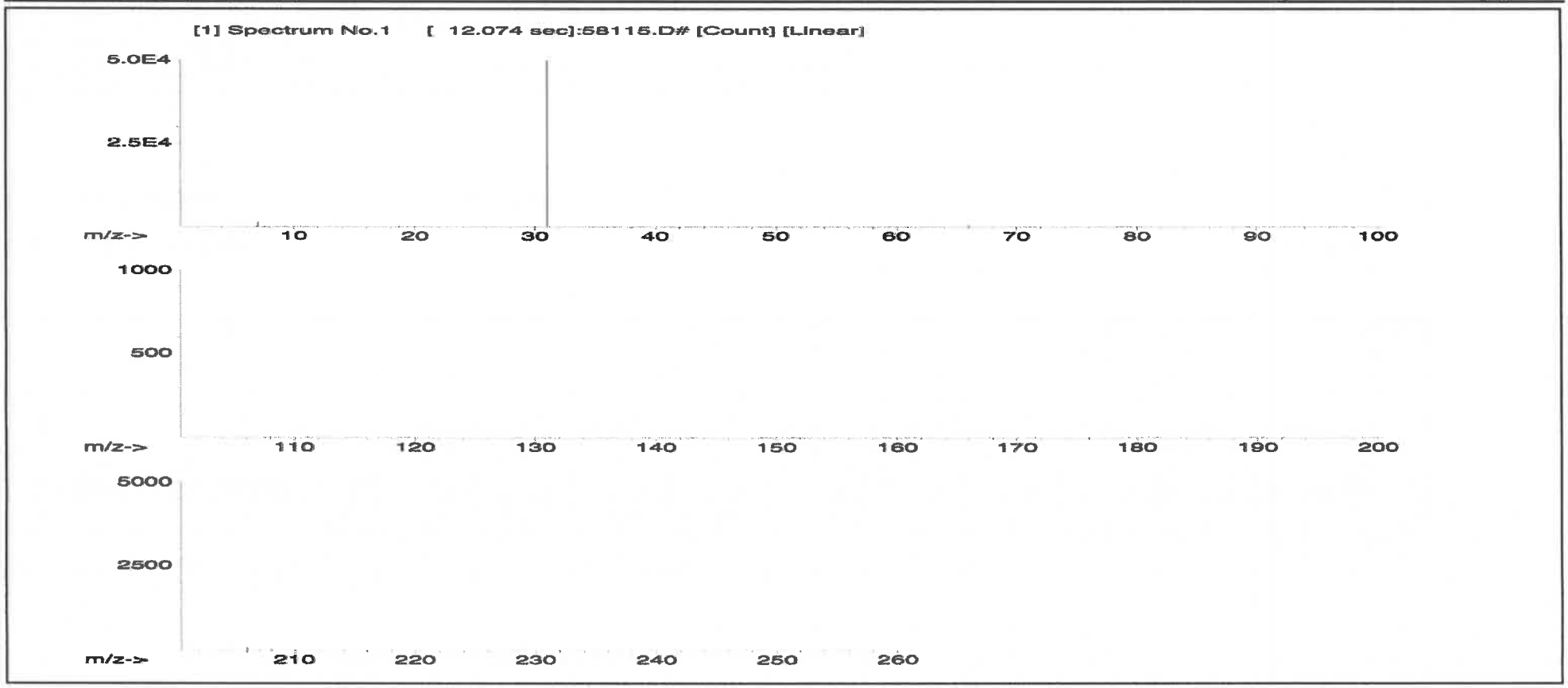
ANAB ISO 17034 Accredited
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CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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Certificate of Analysis

R: 02/22/24 M5942

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 17, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

M5959 R: 6/14/24.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5960 KK R. 6/11/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

Part Number: 57028
Lot Number: 041124
Description: Nickel (Ni)

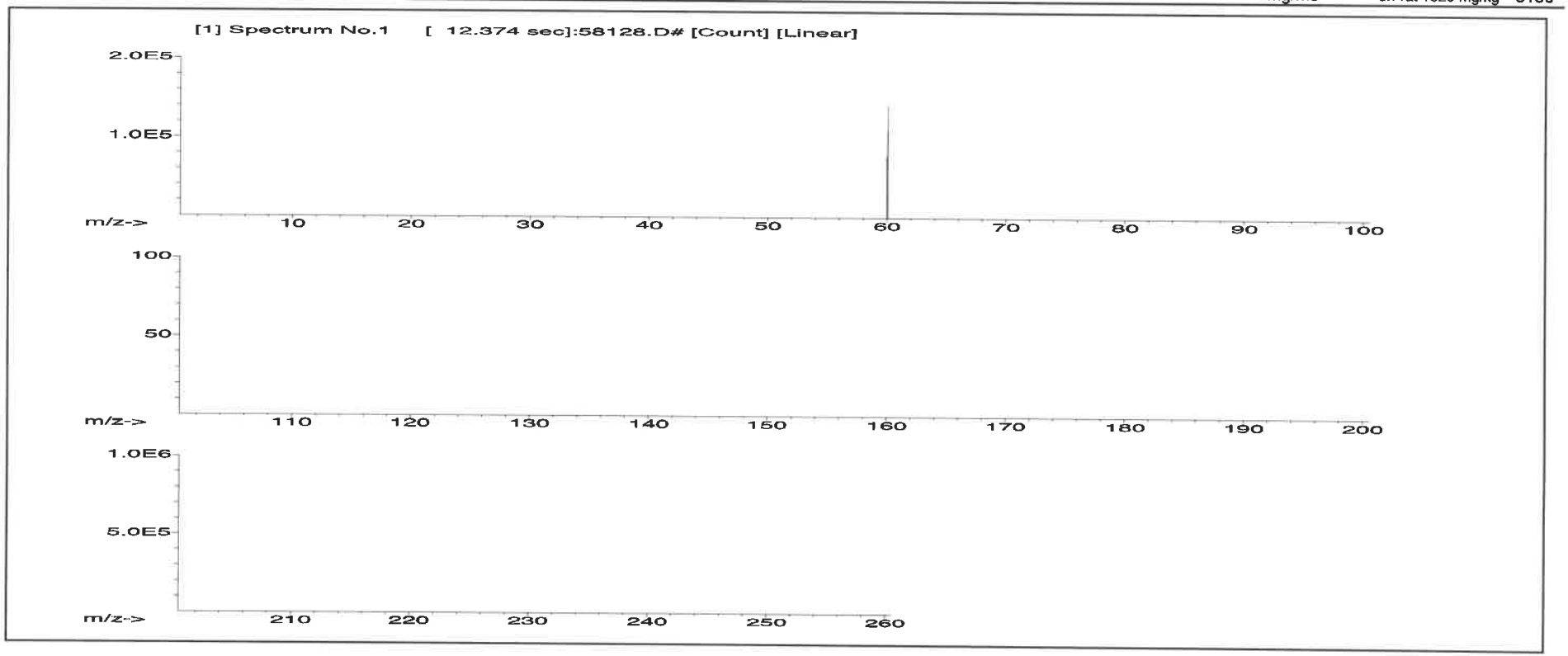
Expiration Date: 041127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 249.85

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	5.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.002 Flask Uncertainty

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5961 R: 6/11/24

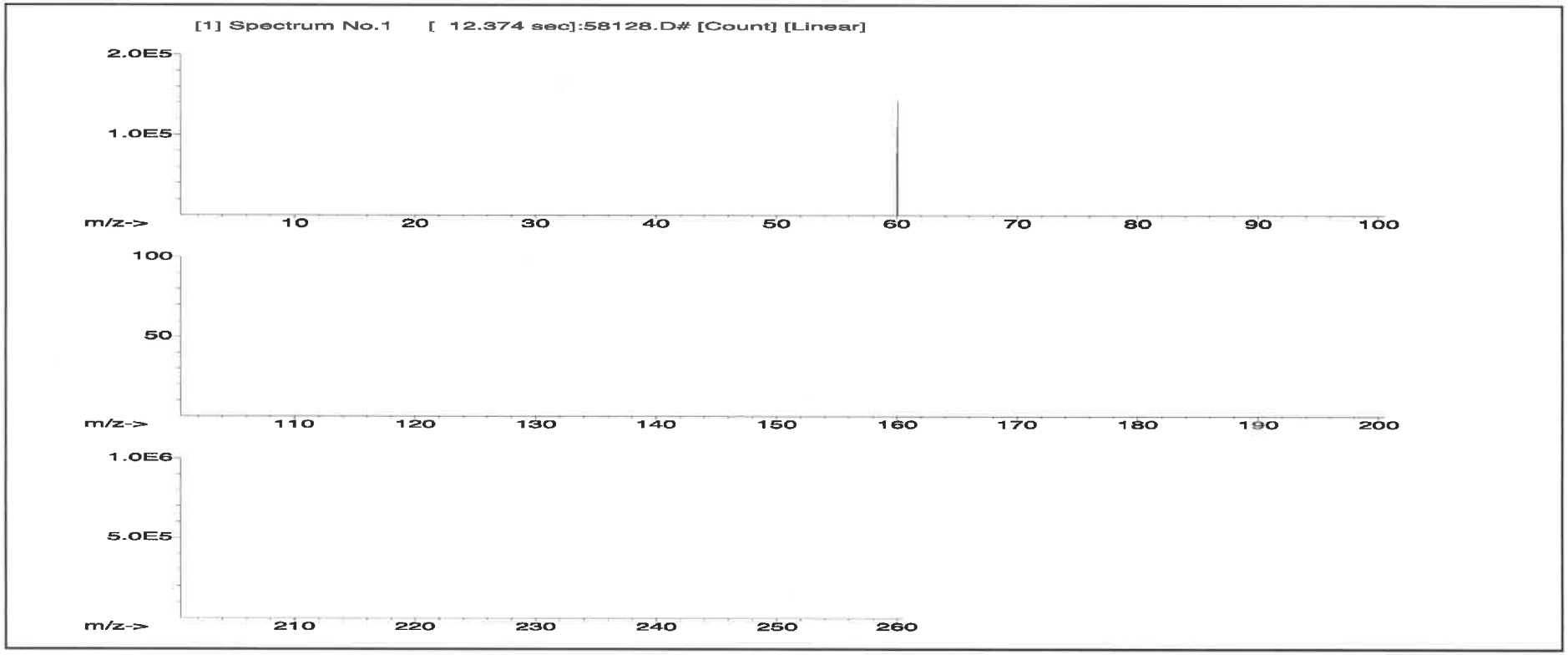
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57028**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**041124**			
Description:	**Nickel (Ni)**			
		2%	5.0 (mL)	Nitric Acid
Expiration Date:	041127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	249.85	0.002	Flask Uncertainty	

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5962 R! 06/14/24.

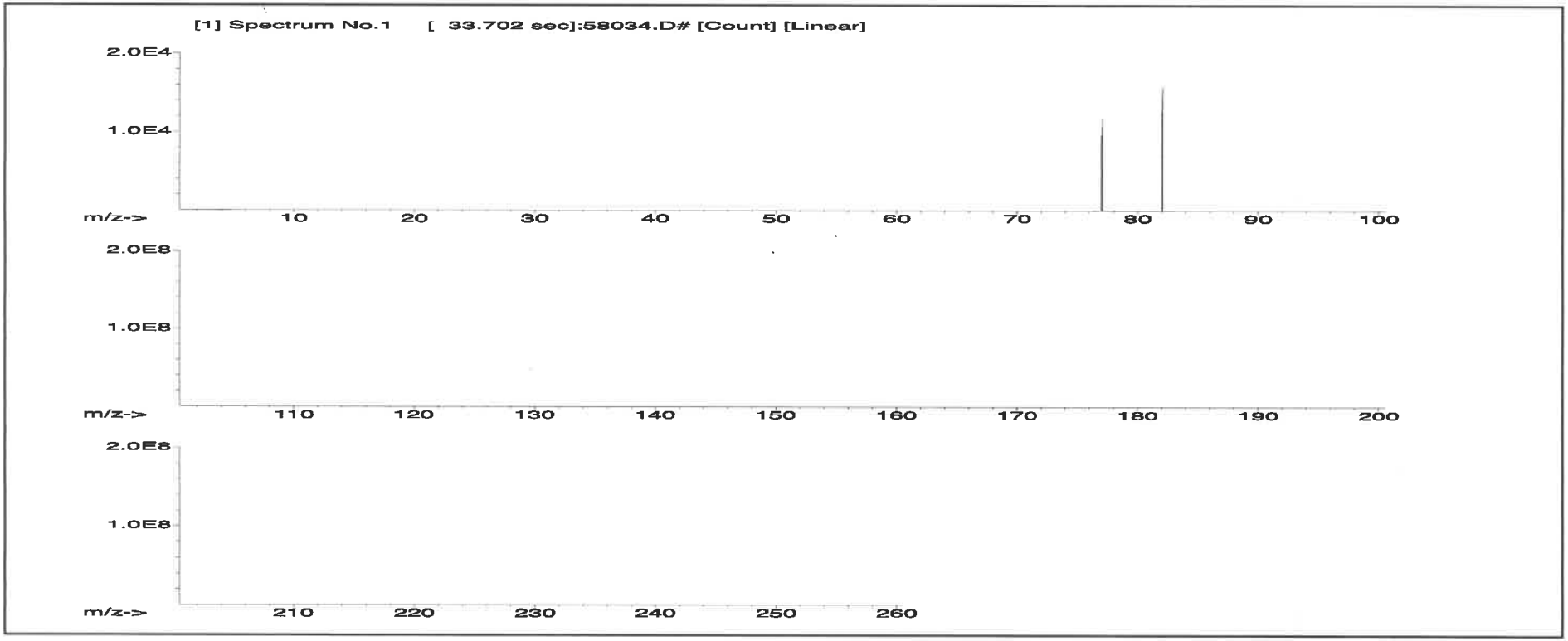
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
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Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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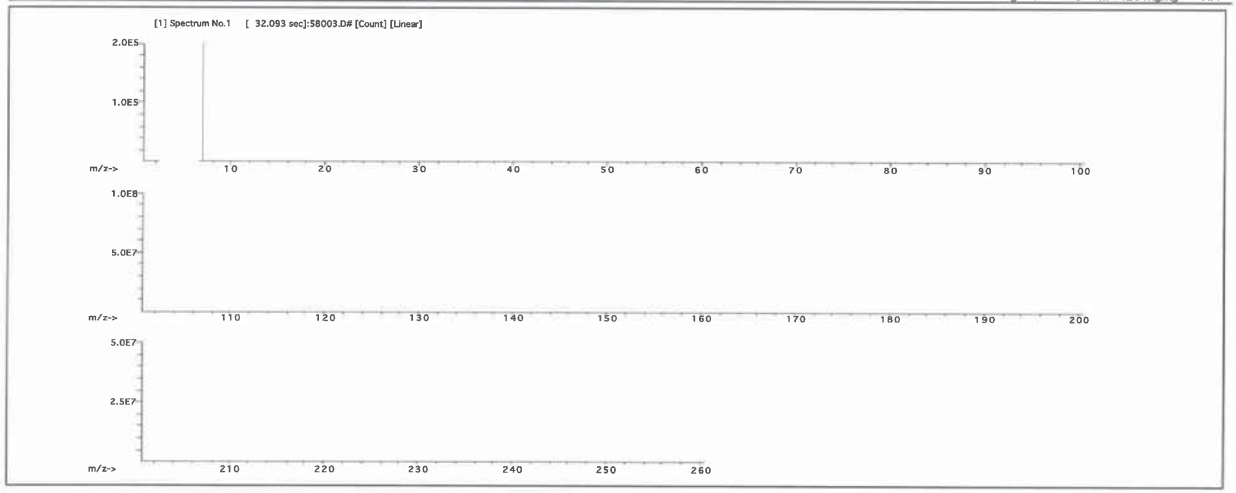
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05 Balance Uncertainty	
Volume shown below was diluted to (mL):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



M5978, M5979

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO_3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma(w_i)^2\ (u_{char\ i})^2]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Refine your results. Redefine your industry.

Certificate of Analysis

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MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-1
Lot Number:	T2-MEB721963
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Manganese, Nickel, Vanadium, Zinc, Cobalt, 250 µg/mL ea: Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium, Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Chromium, Cr	200.0 ± 1.1 µg/mL
Cobalt, Co	500.0 ± 2.4 µg/mL	Copper, Cu	250.0 ± 1.0 µg/mL
Iron, Fe	1 000 ± 4 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Silver, Ag	50.00 ± 0.22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.070 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)\,(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 27, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6/21

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.190
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	1
ACS - Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

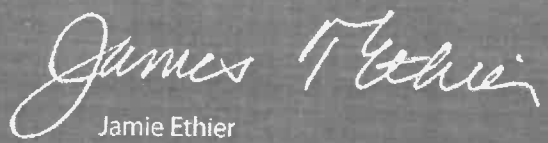
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 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)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

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

M6125 Receive -> 11/22/24

CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

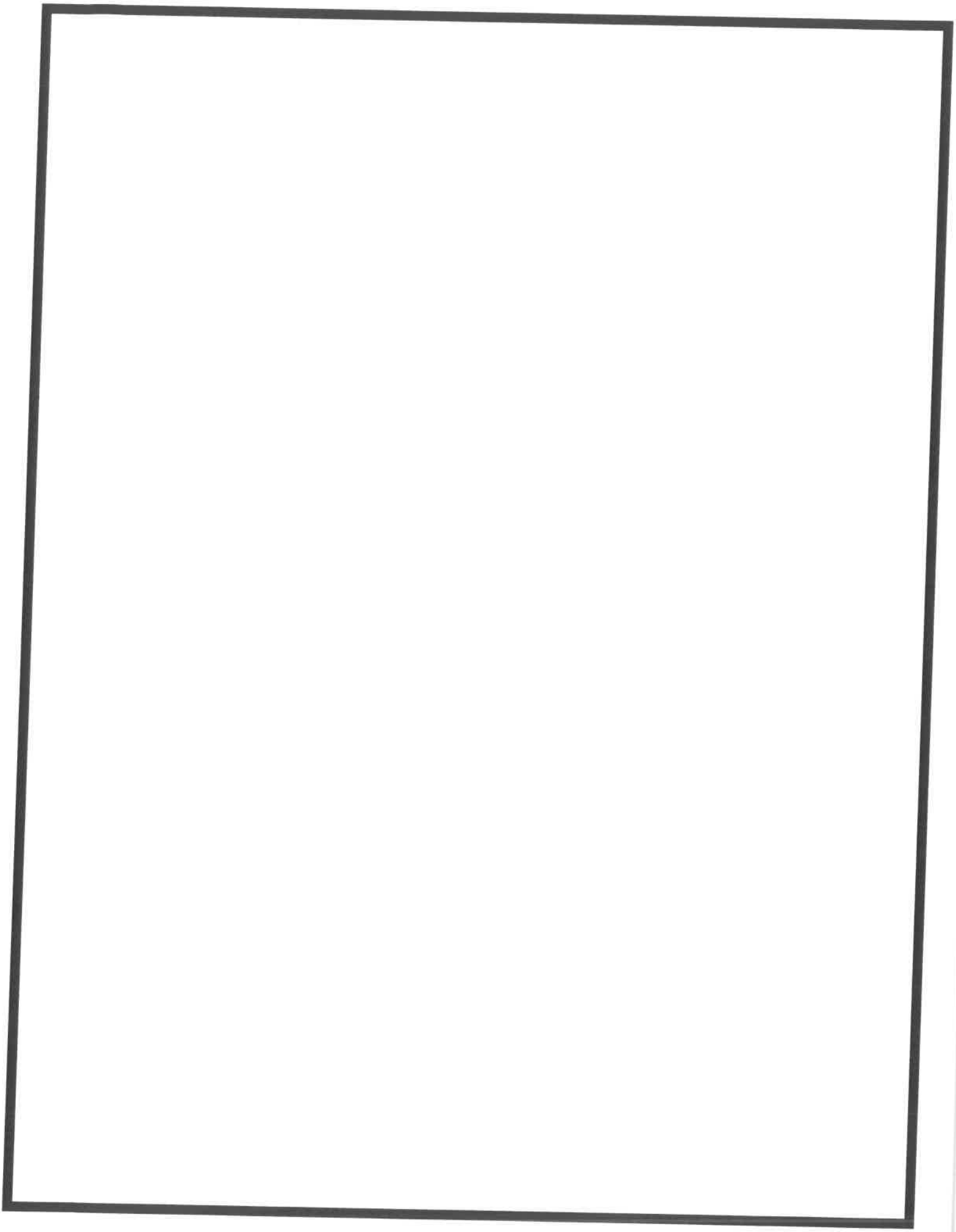
Office and Plant
299 Cedar Lane
Fairless Hills, PA 19030

Phone: 215-295-5006
Fax: 215-295-0781

Hydrogen Peroxide 30%, ACS

Reagent Grade

SPECIFICATION	MAXIMUM LIMITS
Appearance	Colorless and free from suspended matter or sediment
Assay	29-32%
Color (APHA)	10
Residue after Evaporation	0.002%
Titratable Acid	0.0006 meq/g
Chloride (Cl)	3 ppm
Nitrate (NO_3)	2 ppm
Phosphate	2 ppm
Sulfate (SO_4)	5 ppm
Ammonium (NH_4)	5 ppm
Heavy Metals (as Pb)	1 ppm
Iron (Fe)	0.5 ppm



Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

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

For Microelectronic Use

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

Jamie Croak
Director Quality Operations, Bioscience Production

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CERTIFIED WEIGHT REPORT:

R -> 1/13/25

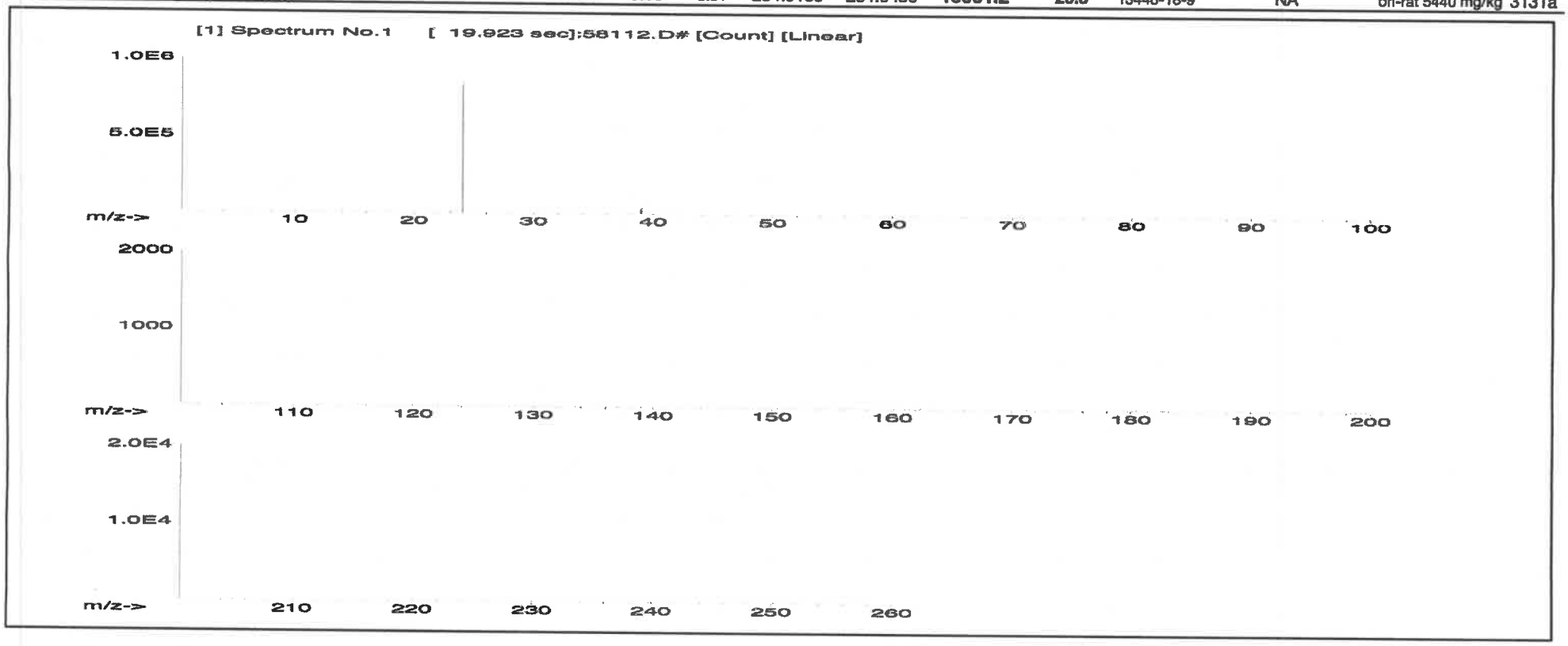
M 6127

			Lot #	
Part Number:	**58112**	**Solvent:**	24012496	Nitric Acid
Lot Number:	**112124**			
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

R->1/13/28

M6128

Part Number:	**58025**	**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

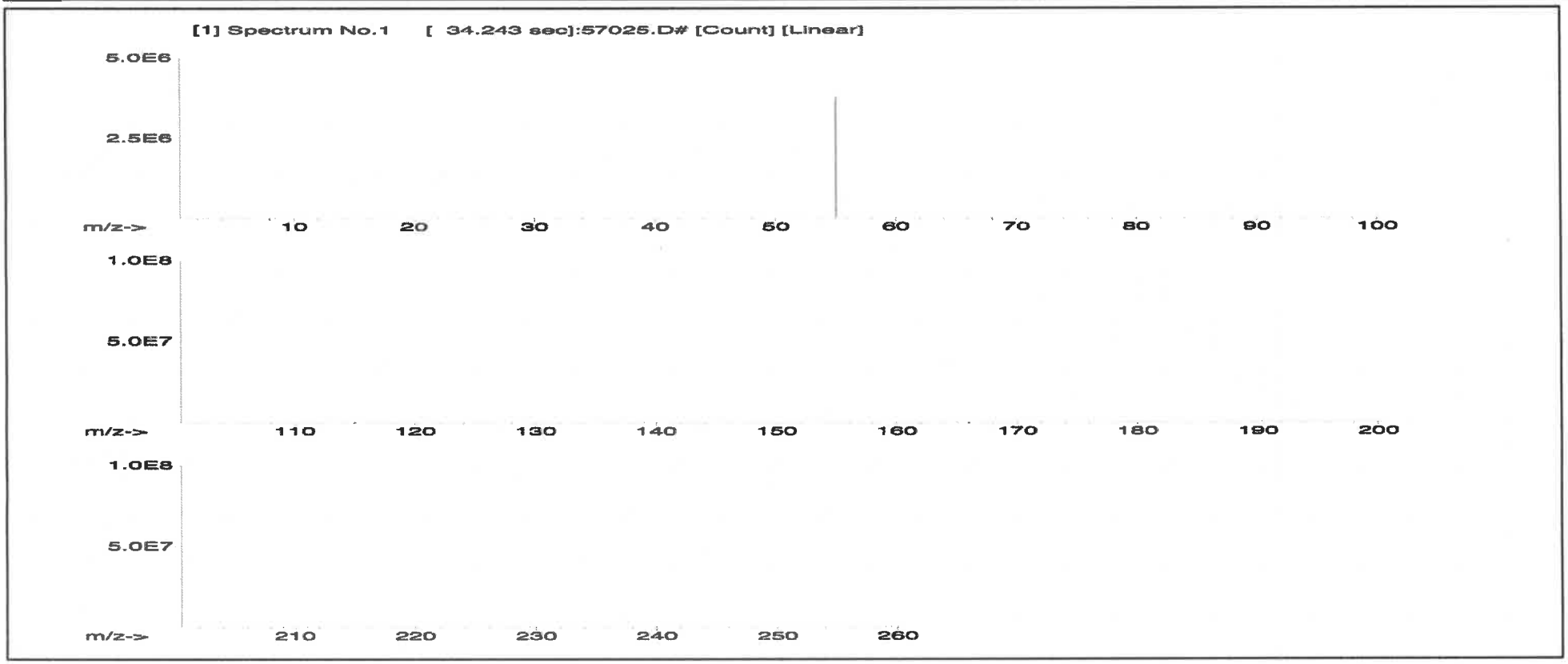
Giovanni Esposito

Formulated By:	Giovanni Esposito	101124

Pedro Rentas

Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 01/03/24 M5806, M5807

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CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 122223
Description: Sodium (Na)

Expiration Date: 122226
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

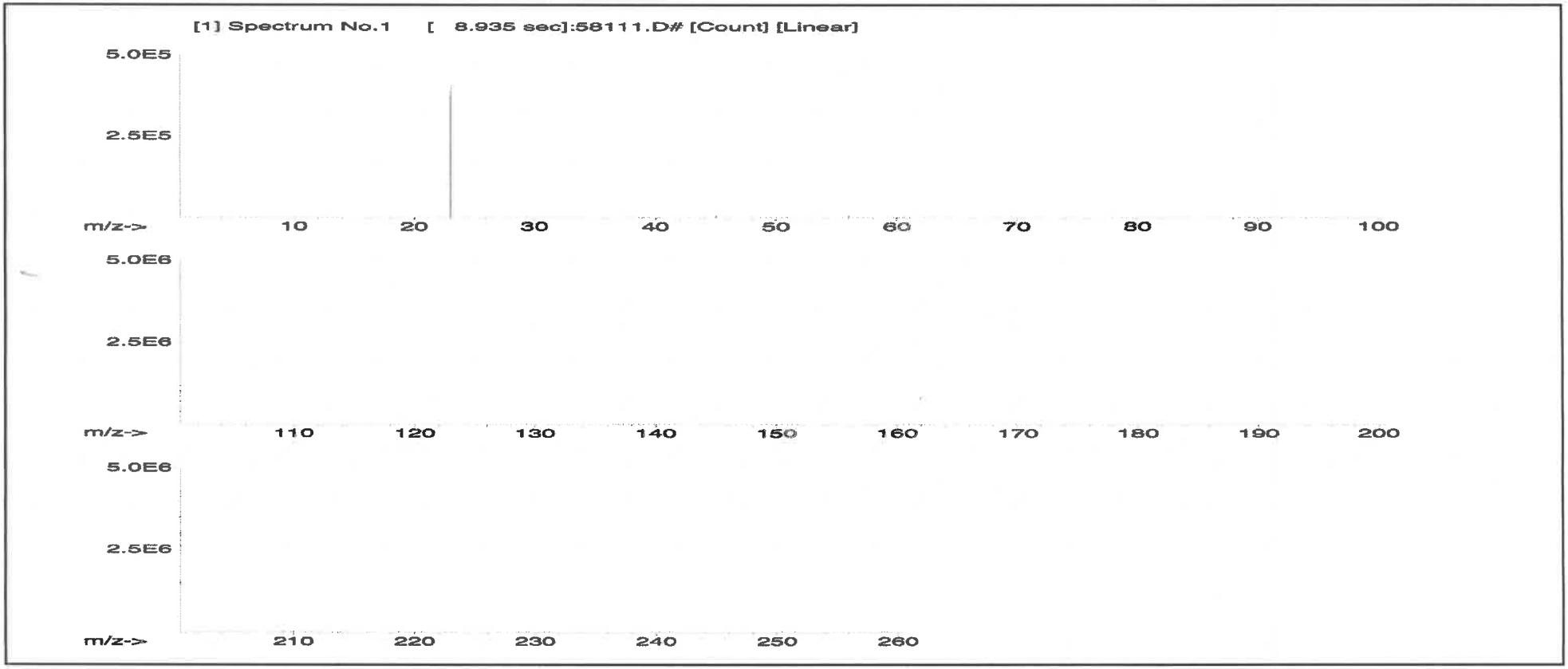
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Aleah O'Brady

Formulated By:	Aleah O'Brady	122223
Reviewed By:	Pedro L. Rentas	122223

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5479	**10000.7**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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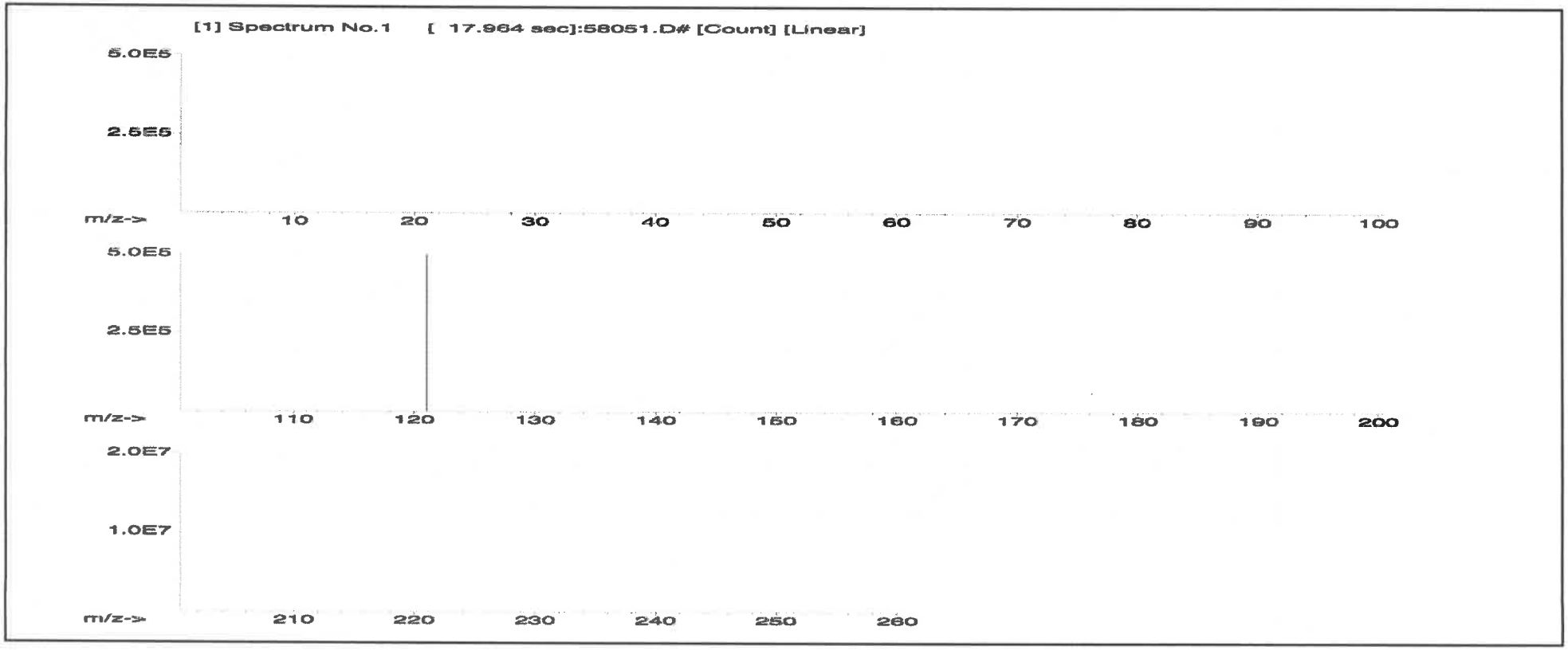
R: 01/03/24 M5802, M5803

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**120523**			
Description:	**Antimony (Sb)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	120526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rentas	120523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	100923	0.1000	300.0	0.084	1000	10001.4	**1000.0**	2.1	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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Certified by:

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M6030

R: 8/5/24

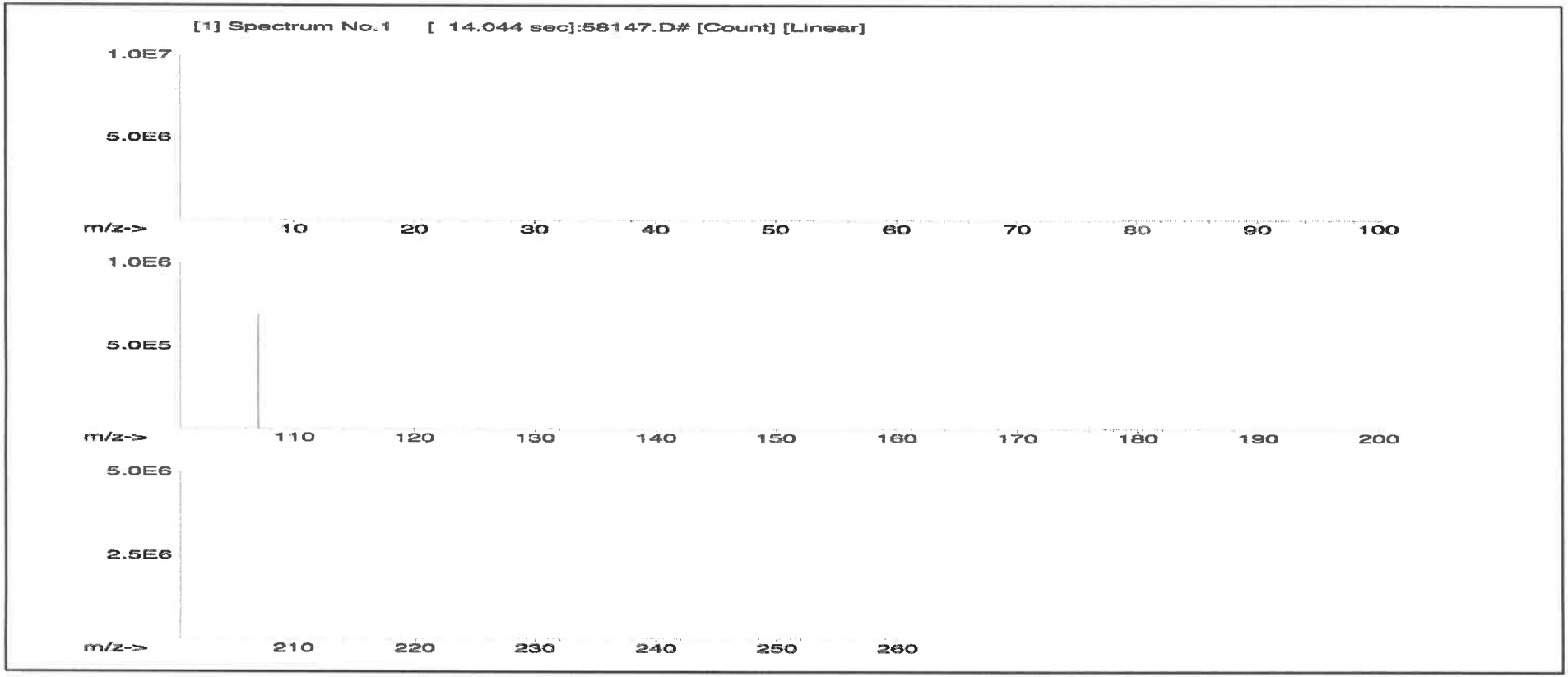
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CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 8/5/24 M6019

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inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 888.01
ACCREDITED Reference Material Producer Certificate 888.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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www.absolutestandards.com

Certified Reference Material CRM

R: 03/16/23 M5473, M5474, M5475, M5476

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 56138
Lot Number: 082922
Description: Strontium (Sr)

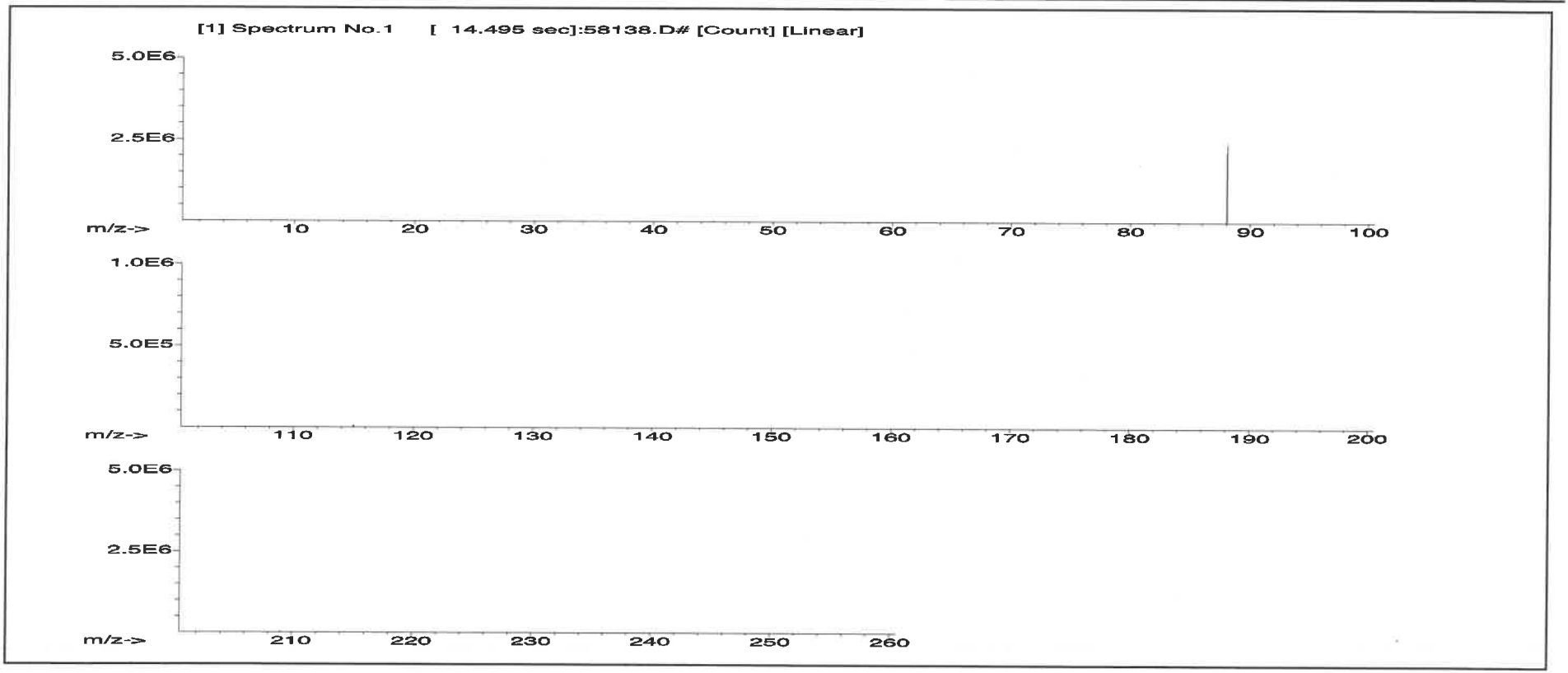
Expiration Date: 082925
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 03/16/23 M5473, M5474, M5475, M5476

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 56138
Lot Number: 082922
Description: Strontium (Sr)

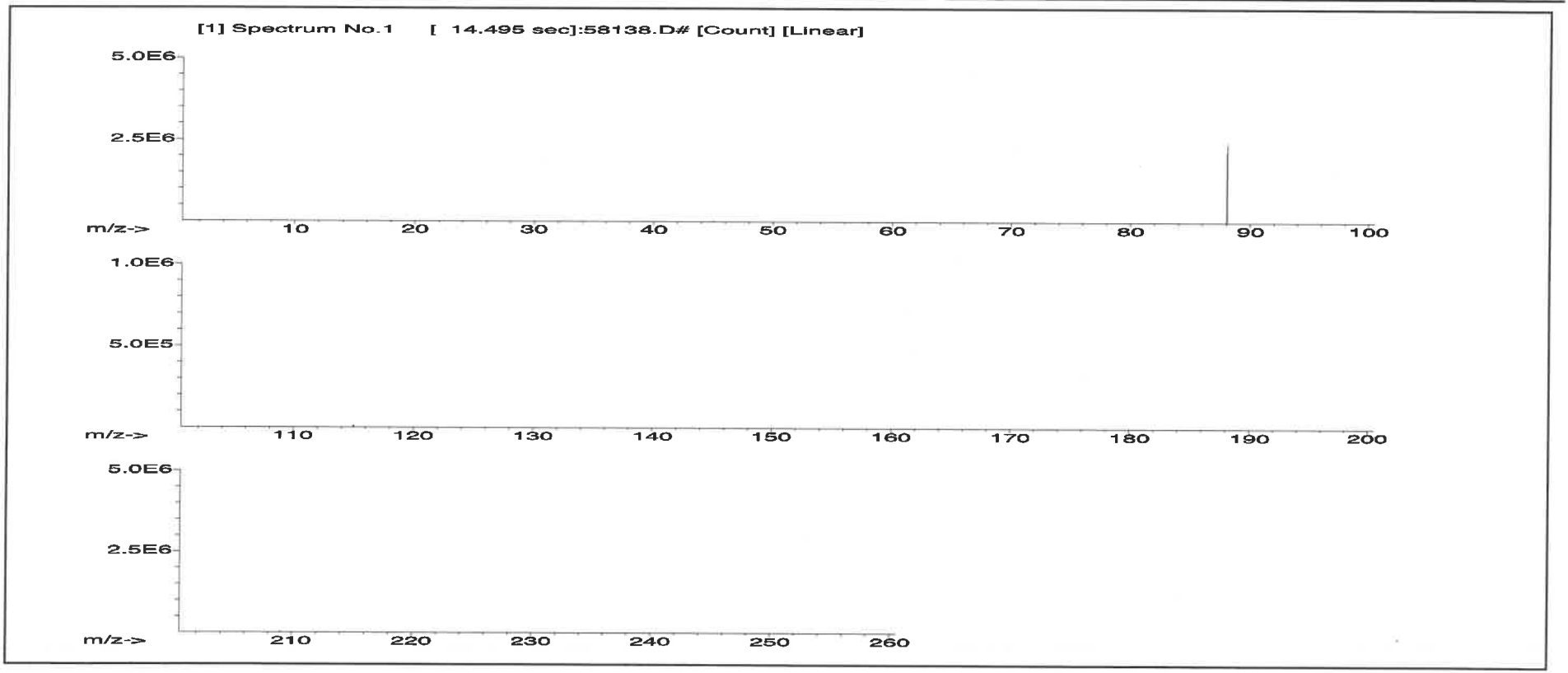
Expiration Date: 082925
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R ! 8/5/24

M6023

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

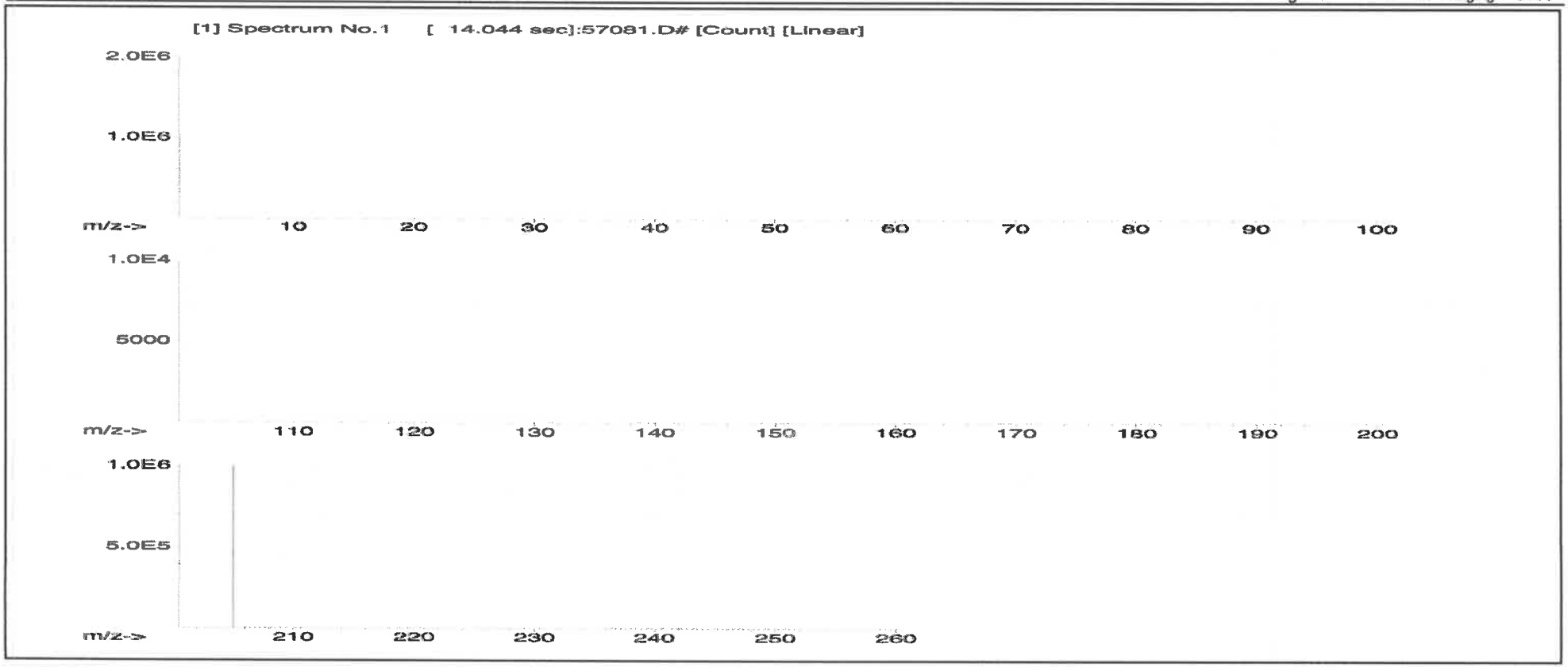
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6021

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

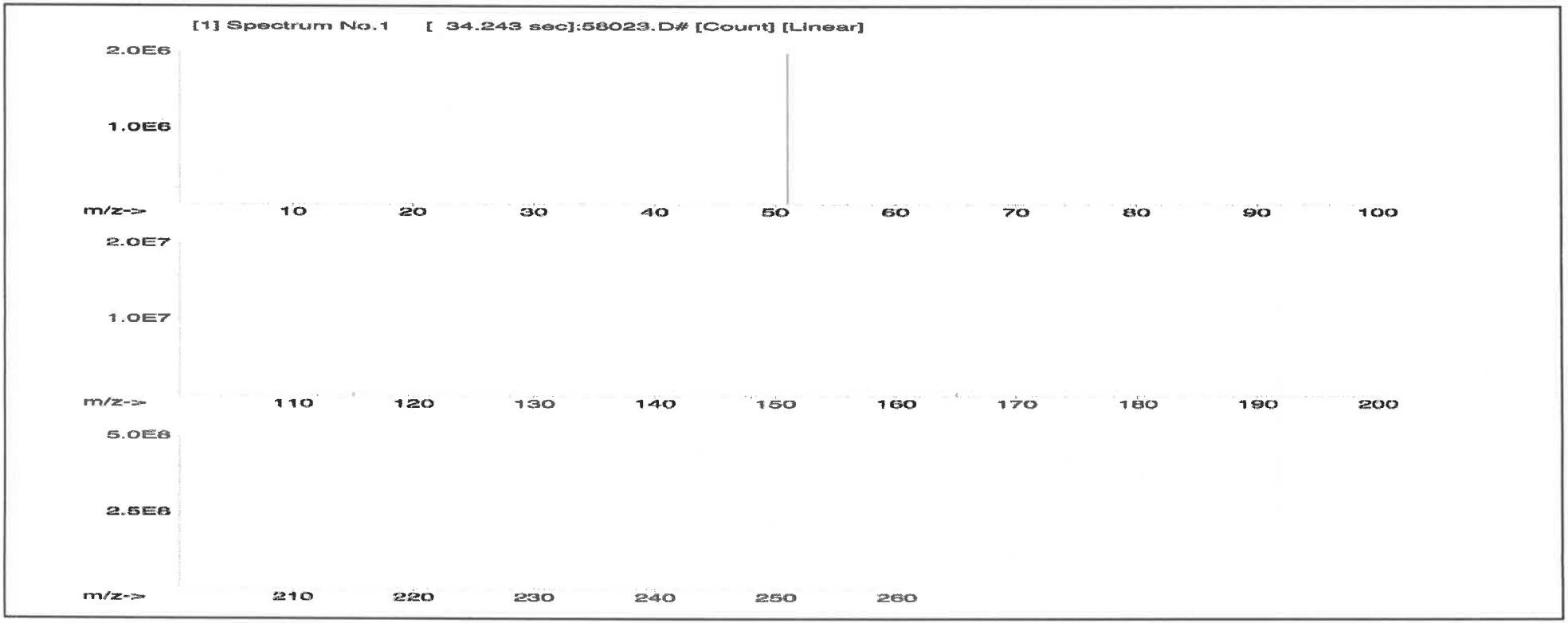
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB166016

SOP ID : M3050B-Digestion-20, MSFAM01.1-Trace Metals-2

SDG No : GCPK5

Matrix : SOIL

Pippete ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #3

Block ID: 1. HOT BLOCK #3 2. N/A

Start Digest Date: 01/10/2025 **Time :** 10:45 **Temp :** 96 °C

End Digest Date: 01/10/2025 **Time :** 12:50 **Temp :** 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. #3

Dig Technician Signature: SKJ.

Supervisor Signature: MS

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LCSS	1.00	MP83506
Spike Sol 6	1.00	MP83512
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
1:1 HNO3	10.00	MP83498
Conc. HNO3	5.00	M6126
30% H2O2	3.00	M6125
Conc. HCL	10.00	M6121
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:

HOT BLOCK #3 CELL #35 : 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
01/10/25 13:50	SKJ. met digestion.	[illegible]
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB166016

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
PB166016BL	PBS016	N/A	1.00	100	Colorless	Colorless	Fine	N/A	N/A	1
PB166016BS	LCS016	N/A	1.00	100	Colorless	Colorless	Fine	N/A	MP83506	2
Q1043-01	GCPK5	N/A	1.30	100	Brown	Yellow	Medium	N/A	N/A	3
Q1043-02	GCPK6	N/A	1.32	100	Brown	Yellow	Medium	N/A	N/A	4
Q1043-03	GCPK7	N/A	1.39	100	Brown	Yellow	Medium	N/A	N/A	5
Q1043-04	GCPK8	N/A	1.44	100	Brown	Yellow	Medium	N/A	N/A	6
Q1043-05	GCPK9	N/A	1.26	100	Brown	Yellow	Medium	N/A	N/A	7
Q1043-06	GCPL0	N/A	1.23	100	Brown	Yellow	Medium	N/A	N/A	8
Q1043-07	GCPL1	N/A	1.37	100	Brown	Yellow	Medium	N/A	N/A	9
Q1043-08	GCPL2	N/A	1.12	100	Brown	Yellow	Medium	N/A	N/A	10
Q1043-09	GCPL2D	N/A	1.31	100	Brown	Yellow	Medium	N/A	N/A	11
Q1043-10	GCPL2S	N/A	1.12	100	Brown	Yellow	Medium	N/A	MP83512	12
Q1043-11	GCPL3	N/A	1.14	100	Brown	Yellow	Medium	N/A	N/A	13
Q1043-12	GCPL4	N/A	1.12	100	Brown	Yellow	Medium	N/A	N/A	14
Q1043-13	GCPL5	N/A	1.22	100	Brown	Yellow	Medium	N/A	N/A	15
Q1043-14	GCPL6	N/A	1.30	100	Brown	Yellow	Medium	N/A	N/A	16
Q1043-15	GCPL7	N/A	1.34	100	Brown	Yellow	Medium	N/A	N/A	17

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134392

Review By	Mohan Bera	Review On	1/24/2025 7:52:38 AM
Supervise By	Kareem Khairalla	Supervise On	1/24/2025 4:41:08 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP84058,MP84059,MP84060,MP84061,MP84062,MP84064
ICV Standard	MP84065
CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/23/25 11:45		Kareem	OK
2	S1	S01	CAL2	01/23/25 11:49		Kareem	OK
3	S2	S02	CAL3	01/23/25 11:53		Kareem	OK
4	S3	S03	CAL4	01/23/25 11:57		Kareem	OK
5	S4	S04	CAL5	01/23/25 12:01		Kareem	OK
6	S5	S05	CAL6	01/23/25 12:05		Kareem	OK
7	S6	S06	CAL7	01/23/25 12:10		Kareem	OK
8	ICV001	ICV001	ICV	01/23/25 12:36	Inst. paused for calibration review	Kareem	OK
9	ICB001	ICB001	ICB	01/23/25 12:49	Inst. paused for review	Kareem	OK
10	ICSA001	ICSA001	ICSA	01/23/25 13:08	Inst. paused for review	Kareem	OK
11	ICSAB001	ICSAB001	ICSAB	01/23/25 13:15	Inst. paused for review	Kareem	OK
12	CCV001	CCV001	CCV	01/23/25 13:28	Inst. paused for review	Kareem	OK
13	CCB001	CCB001	CCB	01/23/25 13:33		Kareem	OK
14	PB166001BL	PBS001	MB	01/23/25 13:37		Kareem	OK
15	PB166001BS	LCS001	LCS	01/23/25 13:41		Kareem	OK
16	PB166002BL	PBS002	MB	01/23/25 13:45		Kareem	OK
17	PB166002BS	LCS002	LCS	01/23/25 13:49		Kareem	OK
18	PB166023BL	PBS023	MB	01/23/25 13:53		Kareem	OK

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CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

19	PB166023BS	LCS023	LCS	01/23/25 13:57		Kareem	OK
20	PB166022BL	PBS022	MB	01/23/25 14:02		Kareem	OK
21	PB166022BS	LCS022	LCS	01/23/25 14:06		Kareem	OK
22	PB166021BL	PBS021	MB	01/23/25 14:10		Kareem	OK
23	PB166021BS	LCS021	LCS	01/23/25 14:14		Kareem	OK
24	PB166017BL	PBS017	MB	01/23/25 14:18		Kareem	OK
25	PB166017BS	LCS017	LCS	01/23/25 14:22		Kareem	OK
26	PB166016BL	PBS016	MB	01/23/25 14:26		Kareem	OK
27	PB166016BS	LCS016	LCS	01/23/25 14:30		Kareem	OK
28	PB166015BL	PBS015	MB	01/23/25 14:34		Kareem	OK
29	PB166015BS	LCS015	LCS	01/23/25 14:39		Kareem	OK
30	Q1041-01	GCPF7	SAM	01/23/25 14:43		Kareem	OK
31	Q1041-02	GCPF8	SAM	01/23/25 14:47		Kareem	OK
32	Q1041-03	GCPF9	SAM	01/23/25 14:51		Kareem	OK
33	Q1041-04	GCPG0	SAM	01/23/25 14:55		Kareem	OK
34	CCV002	CCV002	CCV	01/23/25 14:59		Kareem	OK
35	CCB002	CCB002	CCB	01/23/25 15:03		Kareem	OK
36	Q1041-05	GCPG0D	DUP	01/23/25 15:07		Kareem	OK
37	Q1041-04L	GCPG0L	SD	01/23/25 15:11		Kareem	OK
38	Q1041-06	GCPG0S	MS	01/23/25 15:15		Kareem	OK

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CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

39	Q1041-07	GCPG1	SAM	01/23/25 15:19		Kareem	OK
40	Q1041-08	GCPG2	SAM	01/23/25 15:23		Kareem	OK
41	Q1041-09	GCPG3	SAM	01/23/25 15:27		Kareem	OK
42	Q1041-10	GCPG4	SAM	01/23/25 15:31		Kareem	OK
43	Q1041-11	GCPG5	SAM	01/23/25 15:35		Kareem	OK
44	Q1041-12	GCPG6	SAM	01/23/25 15:39		Kareem	OK
45	Q1041-13	GCPG7	SAM	01/23/25 15:43		Kareem	OK
46	Q1041-14	GCPG8	SAM	01/23/25 15:47		Kareem	OK
47	Q1041-15	GCPG9	SAM	01/23/25 15:51		Kareem	OK
48	Q1041-16	GCPH0	SAM	01/23/25 15:56		Kareem	OK
49	Q1041-17	GCPH1	SAM	01/23/25 15:59		Kareem	OK
50	Q1041-18	GCPH2	SAM	01/23/25 16:03		Kareem	OK
51	Q1041-19	GCPH3	SAM	01/23/25 16:07		Kareem	OK
52	Q1041-20	GCPH4	SAM	01/23/25 16:11		Kareem	OK
53	Q1041-21	GCPH5	SAM	01/23/25 16:15		Kareem	OK
54	Q1039-01	GCPD8	SAM	01/23/25 16:19		Kareem	OK
55	Q1039-02	GCPD9	SAM	01/23/25 16:23		Kareem	OK
56	CCV003	CCV003	CCV	01/23/25 16:27		Kareem	OK
57	CCB003	CCB003	CCB	01/23/25 16:31		Kareem	OK
58	Q1039-03	GCPE0	SAM	01/23/25 16:35		Kareem	OK

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CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

59	Q1039-04	GCPE0D	DUP	01/23/25 16:39		Kareem	OK
60	Q1039-03L	GCPE0L	SD	01/23/25 16:43		Kareem	OK
61	Q1039-05	GCPE0S	MS	01/23/25 16:47		Kareem	OK
62	Q1039-06	GCPE1	SAM	01/23/25 16:51		Kareem	OK
63	Q1039-07	GCPE2	SAM	01/23/25 16:55		Kareem	OK
64	Q1039-08	GCPE3	SAM	01/23/25 16:59		Kareem	OK
65	Q1039-09	GCPE4	SAM	01/23/25 17:03		Kareem	OK
66	Q1039-10	GCPE5	SAM	01/23/25 17:07	Ba high	Kareem	Dilution
67	Q1039-11	GCPE6	SAM	01/23/25 17:12		Kareem	OK
68	Q1039-12	GCPE7	SAM	01/23/25 17:16		Kareem	OK
69	Q1039-13	GCPE8	SAM	01/23/25 17:20		Kareem	OK
70	Q1039-14	GCPE9	SAM	01/23/25 17:24		Kareem	OK
71	Q1039-15	GCPF0	SAM	01/23/25 17:27		Kareem	OK
72	Q1039-16	GCPF1	SAM	01/23/25 17:31		Kareem	OK
73	Q1039-17	GCPF2	SAM	01/23/25 17:36		Kareem	OK
74	Q1039-18	GCPF3	SAM	01/23/25 17:40		Kareem	OK
75	Q1039-19	GCPF4	SAM	01/23/25 17:43		Kareem	OK
76	Q1039-20	GCPF5	SAM	01/23/25 17:48		Kareem	OK
77	Q1039-21	GCPF6	SAM	01/23/25 17:51		Kareem	OK
78	CCV004	CCV004	CCV	01/23/25 17:55		Kareem	OK

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79	CCB004	CCB004	CCB	01/23/25 18:00		Kareem	OK
80	Q1047-01	GCQ38	SAM	01/23/25 18:04		Kareem	OK
81	Q1047-02	GCQ39	SAM	01/23/25 18:08		Kareem	OK
82	Q1047-03	GCQ40	SAM	01/23/25 18:12		Kareem	OK
83	Q1047-04	GCQ41	SAM	01/23/25 18:16	Ba high	Kareem	Dilution
84	Q1047-05	GCQ41D	DUP	01/23/25 18:20	Ba high	Kareem	Dilution
85	Q1047-04L	GCQ41L	SD	01/23/25 18:25	Ba high	Kareem	Dilution
86	Q1047-06	GCQ41S	MS	01/23/25 18:29	Ba high	Kareem	Dilution
87	Q1047-07	GCQ42	SAM	01/23/25 18:33	Ba high	Kareem	Dilution
88	Q1047-08	GCQ43	SAM	01/23/25 18:37	Ba high	Kareem	Dilution
89	Q1047-09	GCQ44	SAM	01/23/25 18:41	Ba high	Kareem	Dilution
90	Q1047-10	GCQ45	SAM	01/23/25 18:45	Ba high	Kareem	Dilution
91	Q1047-11	GCQ46	SAM	01/23/25 18:49	Ba high	Kareem	Dilution
92	Q1047-12	GCQ47	SAM	01/23/25 18:53	Ba high	Kareem	Dilution
93	Q1047-13	GCQ48	SAM	01/23/25 18:58	Ba high	Kareem	Dilution
94	Q1047-14	GCQ49	SAM	01/23/25 19:02	Ba high	Kareem	Dilution
95	Q1047-15	GCQ50	SAM	01/23/25 19:06	Ba high	Kareem	Dilution
96	Q1047-16	GCQ51	SAM	01/23/25 19:10		Kareem	OK
97	Q1047-17	GCQ52	SAM	01/23/25 19:14	Ba high	Kareem	Dilution
98	Q1047-18	GCQ53	SAM	01/23/25 19:18	Ba high	Kareem	Dilution

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Daily Analysis Runlog For Sequence/QCBatch ID # LB134392

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ICV Standard	MP84065
CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

99	Q1047-19	GCQ54	SAM	01/23/25 19:22	Ba high	Kareem	Dilution
100	CCV005	CCV005	CCV	01/23/25 19:26		Kareem	OK
101	CCB005	CCB005	CCB	01/23/25 19:30		Kareem	OK
102	Q1047-20	GCQ55	SAM	01/23/25 19:34	Ba high	Kareem	Dilution
103	Q1047-21	GCQ56	SAM	01/23/25 19:38		Kareem	OK
104	Q1045-01	GCPZ8	SAM	01/23/25 19:42	Ba high	Kareem	Dilution
105	Q1045-02	GCPZ9	SAM	01/23/25 19:47		Kareem	OK
106	Q1045-03	GCQ00	SAM	01/23/25 19:51	Ba high	Kareem	Dilution
107	Q1045-04	GCQ01	SAM	01/23/25 19:55	Ba high	Kareem	Dilution
108	Q1045-05	GCQ02	SAM	01/23/25 19:59	Ba high	Kareem	Dilution
109	Q1045-06	GCQ03	SAM	01/23/25 20:03		Kareem	OK
110	Q1045-07	GCQ04	SAM	01/23/25 20:08	Ba high	Kareem	Dilution
111	Q1045-08	GCQ04D	DUP	01/23/25 20:12	Ba high	Kareem	Dilution
112	Q1045-07L	GCQ04L	SD	01/23/25 20:16	Ba high	Kareem	Dilution
113	Q1045-09	GCQ04S	MS	01/23/25 20:20	Ba high	Kareem	Dilution
114	Q1045-10	GCQ05	SAM	01/23/25 20:24	Ba high	Kareem	Dilution
115	Q1045-11	GCQ06	SAM	01/23/25 20:28	Ba high	Kareem	Dilution
116	Q1045-12	GCQ07	SAM	01/23/25 20:32		Kareem	OK
117	Q1045-13	GCQ08	SAM	01/23/25 20:37	Ba high	Kareem	Dilution
118	Q1045-14	GCQ09	SAM	01/23/25 20:41		Kareem	OK

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Supervise By	Kareem Khairalla	Supervise On	1/24/2025 4:41:08 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP84058,MP84059,MP84060,MP84061,MP84062,MP84064
ICV Standard	MP84065
CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

119	Q1045-15	GCQ10	SAM	01/23/25 20:45		Kareem	OK
120	Q1045-16	GCQ11	SAM	01/23/25 20:49	Ba high	Kareem	Dilution
121	Q1045-17	GCQ12	SAM	01/23/25 20:53	Ba high	Kareem	Dilution
122	CCV006	CCV006	CCV	01/23/25 20:57		Kareem	OK
123	CCB006	CCB006	CCB	01/23/25 21:01		Kareem	OK
124	Q1045-18	GCQ13	SAM	01/23/25 21:06	Ba high	Kareem	Dilution
125	Q1045-19	GCQ14	SAM	01/23/25 21:10		Kareem	OK
126	Q1045-20	GCQ15	SAM	01/23/25 21:14	Ba high	Kareem	Dilution
127	Q1045-21	GCQ16	SAM	01/23/25 21:18		Kareem	OK
128	Q1045-22	GCQ17	SAM	01/23/25 21:22	Ba high	Kareem	Dilution
129	Q1042-01	GCPH6	SAM	01/23/25 21:26		Kareem	OK
130	Q1042-02	GCPH7	SAM	01/23/25 21:30		Kareem	OK
131	Q1042-03	GCPH8	SAM	01/23/25 21:34		Kareem	OK
132	Q1042-04	GCPH9	SAM	01/23/25 21:38		Kareem	OK
133	Q1042-05	GCPH9D	DUP	01/23/25 21:42		Kareem	OK
134	Q1042-04L	GCPH9L	SD	01/23/25 21:46		Kareem	OK
135	Q1042-06	GCPH9S	MS	01/23/25 21:50		Kareem	OK
136	Q1042-07	GCPJ0	SAM	01/23/25 21:54		Kareem	OK
137	Q1042-08	GCPJ1	SAM	01/23/25 21:58		Kareem	OK
138	Q1042-09	GCPJ2	SAM	01/23/25 22:02	Ba high	Kareem	Dilution

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134392

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CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

139	Q1042-10	GCPJ3	SAM	01/23/25 22:06		Kareem	OK
140	Q1042-11	GCPJ4	SAM	01/23/25 22:10		Kareem	OK
141	Q1042-12	GCPJ5	SAM	01/23/25 22:14		Kareem	OK
142	Q1042-13	GCPJ6	SAM	01/23/25 22:18		Kareem	OK
143	Q1042-14	GCPJ7	SAM	01/23/25 22:22		Kareem	OK
144	CCV007	CCV007	CCV	01/23/25 22:26		Kareem	OK
145	CCB007	CCB007	CCB	01/23/25 22:31		Kareem	OK
146	Q1042-15	GCPJ8	SAM	01/23/25 22:35		Kareem	OK
147	Q1042-16	GCPJ9	SAM	01/23/25 22:39		Kareem	OK
148	Q1042-17	GCPK0	SAM	01/23/25 22:43		Kareem	OK
149	Q1042-18	GCPK1	SAM	01/23/25 22:47		Kareem	OK
150	Q1042-19	GCPK2	SAM	01/23/25 22:50		Kareem	OK
151	Q1042-20	GCPK3	SAM	01/23/25 22:54		Kareem	OK
152	Q1042-21	GCPK4	SAM	01/23/25 22:58		Kareem	OK
153	Q1043-01	GCPK5	SAM	01/23/25 23:02		Kareem	OK
154	Q1043-02	GCPK6	SAM	01/23/25 23:06		Kareem	OK
155	Q1043-03	GCPK7	SAM	01/23/25 23:10		Kareem	OK
156	Q1043-04	GCPK8	SAM	01/23/25 23:14		Kareem	OK
157	Q1043-05	GCPK9	SAM	01/23/25 23:18		Kareem	OK
158	Q1043-06	GCPL0	SAM	01/23/25 23:22		Kareem	OK

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LCS Standard	MP84063
Chk Standard	MP84071,MP84072

159	Q1043-07	GCPL1	SAM	01/23/25 23:26		Kareem	OK
160	Q1043-08	GCPL2	SAM	01/23/25 23:30		Kareem	OK
161	Q1043-09	GCPL2D	DUP	01/23/25 23:34		Kareem	OK
162	Q1043-08L	GCPL2L	SD	01/23/25 23:38		Kareem	OK
163	Q1043-10	GCPL2S	MS	01/23/25 23:42		Kareem	OK
164	Q1043-11	GCPL3	SAM	01/23/25 23:46		Kareem	OK
165	Q1043-12	GCPL4	SAM	01/23/25 23:50		Kareem	OK
166	CCV008	CCV008	CCV	01/23/25 23:55		Kareem	OK
167	CCB008	CCB008	CCB	01/23/25 23:59		Kareem	OK
168	Q1043-13	GCPL5	SAM	01/24/25 00:03		Kareem	OK
169	Q1043-14	GCPL6	SAM	01/24/25 00:07		Kareem	OK
170	Q1043-15	GCPL7	SAM	01/24/25 00:11		Kareem	OK
171	Q1044-01	GCPX8	SAM	01/24/25 00:15		Kareem	OK
172	Q1044-02	GCPX9	SAM	01/24/25 00:19		Kareem	OK
173	Q1044-03	GCPX9D	DUP	01/24/25 00:23		Kareem	OK
174	Q1044-02L	GCPX9L	SD	01/24/25 00:27		Kareem	OK
175	Q1044-04	GCPX9S	MS	01/24/25 00:31		Kareem	OK
176	Q1044-05	GCPY0	SAM	01/24/25 00:35		Kareem	OK
177	Q1044-06	GCPY1	SAM	01/24/25 00:39		Kareem	OK
178	Q1044-07	GCPY2	SAM	01/24/25 00:43		Kareem	OK

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CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

179	Q1044-08	GCPY3	SAM	01/24/25 00:47		Kareem	OK
180	Q1044-09	GCPY4	SAM	01/24/25 00:51		Kareem	OK
181	Q1044-10	GCPY5	SAM	01/24/25 00:58		Kareem	OK
182	Q1044-11	GCPY6	SAM	01/24/25 01:02		Kareem	OK
183	Q1044-12	GCPY7	SAM	01/24/25 01:06		Kareem	OK
184	Q1044-13	GCPY8	SAM	01/24/25 01:10	Ba high	Kareem	Dilution
185	Q1044-14	GCPY9	SAM	01/24/25 01:14		Kareem	OK
186	Q1044-15	GCPZ0	SAM	01/24/25 01:18		Kareem	OK
187	Q1044-16	GCPZ1	SAM	01/24/25 01:22	Ba high	Kareem	Dilution
188	CCV009	CCV009	CCV	01/24/25 01:26		Kareem	OK
189	CCB009	CCB009	CCB	01/24/25 01:31		Kareem	OK
190	Q1044-17	GCPZ2	SAM	01/24/25 01:35		Kareem	OK
191	Q1044-18	GCPZ3	SAM	01/24/25 01:39	Ba high	Kareem	Dilution
192	Q1044-19	GCPZ4	SAM	01/24/25 01:43	Ba high	Kareem	Dilution
193	Q1044-20	GCPZ5	SAM	01/24/25 01:47	Ba high	Kareem	Dilution
194	Q1044-21	GCPZ6	SAM	01/24/25 01:51	Ba high	Kareem	Dilution
195	Q1044-22	GCPZ7	SAM	01/24/25 01:55		Kareem	OK
196	Q1046-01	GCQ18	SAM	01/24/25 02:00	Ba high	Kareem	Dilution
197	Q1046-02	GCQ19	SAM	01/24/25 02:04	NOT USE	Kareem	Not Ok
198	Q1046-03	GCQ19D	DUP	01/24/25 02:08	NOT USE	Kareem	Not Ok

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Chk Standard	MP84071,MP84072

199	Q1046-02L	GCQ19L	SD	01/24/25 02:12	NOT USE	Kareem	Not Ok
200	Q1046-04	GCQ19S	MS	01/24/25 02:16	NOT USE	Kareem	Not Ok
201	Q1046-05	GCQ20	SAM	01/24/25 02:20		Kareem	OK
202	Q1046-06	GCQ21	SAM	01/24/25 02:24		Kareem	OK
203	Q1046-07	GCQ22	SAM	01/24/25 02:28		Kareem	OK
204	Q1046-08	GCQ23	SAM	01/24/25 02:32		Kareem	OK
205	Q1046-09	GCQ24	SAM	01/24/25 02:36		Kareem	OK
206	Q1046-10	GCQ25	SAM	01/24/25 02:40	Ba high	Kareem	Dilution
207	Q1046-11	GCQ26	SAM	01/24/25 02:44	Ba high	Kareem	Dilution
208	Q1046-12	GCQ27	SAM	01/24/25 02:49		Kareem	OK
209	Q1046-13	GCQ28	SAM	01/24/25 02:53		Kareem	OK
210	CCV010	CCV010	CCV	01/24/25 02:57		Kareem	OK
211	CCB010	CCB010	CCB	01/24/25 03:01		Kareem	OK
212	Q1046-14	GCQ29	SAM	01/24/25 03:06		Kareem	OK
213	Q1046-15	GCQ30	SAM	01/24/25 03:10		Kareem	OK
214	Q1046-16	GCQ31	SAM	01/24/25 03:14		Kareem	OK
215	Q1046-17	GCQ32	SAM	01/24/25 03:18		Kareem	OK
216	Q1046-18	GCQ33	SAM	01/24/25 03:22		Kareem	OK
217	Q1046-19	GCQ34	SAM	01/24/25 03:26		Kareem	OK
218	Q1046-20	GCQ35	SAM	01/24/25 03:30		Kareem	OK

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CCV Standard	MP84069
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP84063
Chk Standard	MP84071,MP84072

219	Q1046-21	GCQ36	SAM	01/24/25 03:34		Kareem	OK
220	Q1046-22	GCQ37	SAM	01/24/25 03:38		Kareem	OK
221	Q1039-10DL	GCPE5	SAM	01/24/25 03:42	NOT USE	Kareem	Not Ok
222	Q1047-04DL	GCQ41	SAM	01/24/25 03:47	2x for Ba	Kareem	Confirms
223	Q1047-05DL	GCQ41D	DUP	01/24/25 03:51	2x for Ba	Kareem	Confirms
224	Q1047-04LDL	GCQ41L	SD	01/24/25 03:55	10x for Ba	Kareem	Confirms
225	Q1047-06DL	GCQ41S	MS	01/24/25 03:59	2x for Ba	Kareem	Confirms
226	CCV011	CCV011	CCV	01/24/25 04:03		Kareem	OK
227	CCB011	CCB011	CCB	01/24/25 04:08		Kareem	OK

Instructions for Catalog # 540QR
Metals in Soil
Revision 111122

Description:
- This standard is packaged in a 2-ounce glass jar containing approximately 30 grams of soil.
- This standard is not preserved.
- The standard can be stored at room temperature.
- The standard will contain all the analytes listed in the ranges specified on the data reporting form.

Before you Begin:
- The Mercury in this standard should be determined using the digestion and analytical procedures in the current version of EPA method 7471, or equivalent.
- The other metals in this standard should be determined using EPA digestion methods 3050 or 3051 followed by your normal analysis procedures.
- This standard should not be analyzed for Hexavalent Chromium. A separate standard, ERA catalog number 921QR, is available for Hexavalent Chromium.
- Although all ERA soil standards have been thoroughly blended prior to shipping, the standards should be homogenized prior to taking an aliquot for analysis due to settling which may occur during shipping.
- The percent moisture of this standard should be determined, and your analytical results adjusted accordingly and reported on a dry weight basis.

Instructions:
1. Open the Metals in Soil standard in a fume hood to avoid inhalation of dust.
2. Mix the sample well prior to removing aliquots for analysis.
3. Digest and analyze the standard using your normal procedures.
4. Determine the percent moisture of an aliquot of the Metals in Soil standard.
5. Report your results as mg/kg on a dry weight basis.

Safety:
ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. Safety Data Sheets (SDS) for all ERA products are available through our website www.eraqc.com.