Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside NJ 07092
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DATA REPORTING QUALIFIERS- INORGANIC

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

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

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LAB CHRONICLE

OrderID:	Q1982	**OrderDate:**	5/7/2025 3:20:42 PM
Client:	CDM Smith	**Project:**	South River WM Replacement
Contact:	Marcie Ann Encinas	**Location:**	L41,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1982-01	**TP-1**	**SOIL**			**05/06/25**			**05/07/25**
			Metals ICP-TAL	6010D		05/09/25	05/13/25	
			Mercury	7471B		05/09/25	05/12/25	
Q1982-02	**TP-2B**	**SOIL**			**05/06/25**			**05/07/25**
			Metals ICP-TAL	6010D		05/09/25	05/13/25	
			Mercury	7471B		05/09/25	05/12/25	
Q1982-03	**TP-3**	**SOIL**			**05/06/25**			**05/07/25**
			Metals ICP-TAL	6010D		05/09/25	05/13/25	
			Mercury	7471B		05/09/25	05/12/25	
Q1982-04	**TP-4**	**SOIL**			**05/07/25**			**05/07/25**
			Mercury	7471B		05/09/25	05/12/25	
			Metals ICP-TAL	6010D		05/09/25	05/13/25	
Q1982-05	**TP-5**	**SOIL**			**05/07/25**			**05/07/25**
			Mercury	7471B		05/09/25	05/12/25	
			Metals ICP-TAL	6010D		05/09/25	05/13/25	
Q1982-06	**TP-6**	**SOIL**			**05/07/25**			**05/07/25**
			Mercury	7471B		05/09/25	05/12/25	
			Metals ICP-TAL	6010D		05/09/25	05/13/25	
Q1982-07	**TP-8**	**SOIL**			**05/07/25**			**05/07/25**
			Mercury	7471B		05/09/25	05/12/25	
			Metals ICP-TAL	6010D		05/09/25	05/13/25	
Q1982-08	**TP-9**	**SOIL**			**05/07/25**			**05/07/25**
			Mercury	7471B		05/09/25	05/12/25	
			Metals ICP-TAL	6010D		05/09/25	05/13/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1982 **Order ID:** Q1982

Client: CDM Smith **Project ID:** South River WM Replacement

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : TP-1								
Q1982-01	TP-1	SOIL	Aluminum	5780		0.98	5.80	mg/Kg
Q1982-01	TP-1	SOIL	Arsenic	1.81		0.22	1.16	mg/Kg
Q1982-01	TP-1	SOIL	Barium	31.4		0.85	5.80	mg/Kg
Q1982-01	TP-1	SOIL	Beryllium	0.49		0.029	0.35	mg/Kg
Q1982-01	TP-1	SOIL	Calcium	560		12.9	116	mg/Kg
Q1982-01	TP-1	SOIL	Chromium	11.2		0.055	0.58	mg/Kg
Q1982-01	TP-1	SOIL	Cobalt	3.32		0.12	1.74	mg/Kg
Q1982-01	TP-1	SOIL	Copper	8.28		0.26	1.16	mg/Kg
Q1982-01	TP-1	SOIL	Iron	8230		4.63	5.80	mg/Kg
Q1982-01	TP-1	SOIL	Lead	9.47		0.15	0.70	mg/Kg
Q1982-01	TP-1	SOIL	Magnesium	903		13.9	116	mg/Kg
Q1982-01	TP-1	SOIL	Manganese	29.5		0.16	1.16	mg/Kg
Q1982-01	TP-1	SOIL	Mercury	0.018		0.0090	0.017	mg/Kg
Q1982-01	TP-1	SOIL	Nickel	6.62		0.15	2.32	mg/Kg
Q1982-01	TP-1	SOIL	Potassium	298		32.2	116	mg/Kg
Q1982-01	TP-1	SOIL	Sodium	94.5	J	20.7	116	mg/Kg
Q1982-01	TP-1	SOIL	Vanadium	17.0		0.29	2.32	mg/Kg
Q1982-01	TP-1	SOIL	Zinc	21.2		0.27	2.32	mg/Kg
Client ID : TP-2B								
Q1982-02	TP-2B	SOIL	Aluminum	2680		0.90	5.37	mg/Kg
Q1982-02	TP-2B	SOIL	Arsenic	3.50		0.20	1.07	mg/Kg
Q1982-02	TP-2B	SOIL	Barium	15.4		0.78	5.37	mg/Kg
Q1982-02	TP-2B	SOIL	Beryllium	0.38		0.027	0.32	mg/Kg
Q1982-02	TP-2B	SOIL	Calcium	315		11.9	107	mg/Kg
Q1982-02	TP-2B	SOIL	Chromium	12.8		0.050	0.54	mg/Kg
Q1982-02	TP-2B	SOIL	Cobalt	1.00	J	0.11	1.61	mg/Kg
Q1982-02	TP-2B	SOIL	Copper	12.4		0.24	1.07	mg/Kg
Q1982-02	TP-2B	SOIL	Iron	7820		4.29	5.37	mg/Kg
Q1982-02	TP-2B	SOIL	Lead	10.8		0.14	0.65	mg/Kg
Q1982-02	TP-2B	SOIL	Magnesium	463		12.9	107	mg/Kg
Q1982-02	TP-2B	SOIL	Manganese	21.2		0.15	1.07	mg/Kg
Q1982-02	TP-2B	SOIL	Nickel	2.26		0.14	2.15	mg/Kg
Q1982-02	TP-2B	SOIL	Potassium	404		29.8	107	mg/Kg
Q1982-02	TP-2B	SOIL	Sodium	40.9	J	19.1	107	mg/Kg
Q1982-02	TP-2B	SOIL	Thallium	0.43	J	0.25	2.15	mg/Kg
Q1982-02	TP-2B	SOIL	Vanadium	11.8		0.27	2.15	mg/Kg
Q1982-02	TP-2B	SOIL	Zinc	7.19		0.25	2.15	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: Q1982 **Order ID:** Q1982

Client: CDM Smith **Project ID:** South River WM Replacement

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : TP-3								
Q1982-03	TP-3	SOIL	Aluminum	6860		0.88	5.23	mg/Kg
Q1982-03	TP-3	SOIL	Arsenic	0.98	J	0.20	1.05	mg/Kg
Q1982-03	TP-3	SOIL	Barium	32.2		0.76	5.23	mg/Kg
Q1982-03	TP-3	SOIL	Beryllium	0.54		0.026	0.31	mg/Kg
Q1982-03	TP-3	SOIL	Cadmium	0.073	J	0.025	0.31	mg/Kg
Q1982-03	TP-3	SOIL	Calcium	127		11.6	105	mg/Kg
Q1982-03	TP-3	SOIL	Chromium	4.97		0.049	0.52	mg/Kg
Q1982-03	TP-3	SOIL	Cobalt	2.79		0.11	1.57	mg/Kg
Q1982-03	TP-3	SOIL	Copper	2.12		0.23	1.05	mg/Kg
Q1982-03	TP-3	SOIL	Iron	9220		4.17	5.23	mg/Kg
Q1982-03	TP-3	SOIL	Lead	3.44		0.14	0.63	mg/Kg
Q1982-03	TP-3	SOIL	Magnesium	180		12.5	105	mg/Kg
Q1982-03	TP-3	SOIL	Manganese	15.0		0.15	1.05	mg/Kg
Q1982-03	TP-3	SOIL	Nickel	3.55		0.14	2.09	mg/Kg
Q1982-03	TP-3	SOIL	Potassium	121		28.9	105	mg/Kg
Q1982-03	TP-3	SOIL	Sodium	85.7	J	18.6	105	mg/Kg
Q1982-03	TP-3	SOIL	Vanadium	10.8		0.26	2.09	mg/Kg
Q1982-03	TP-3	SOIL	Zinc	9.47		0.24	2.09	mg/Kg
Client ID : TP-4								
Q1982-04	TP-4	SOIL	Aluminum	5780		0.86	5.13	mg/Kg
Q1982-04	TP-4	SOIL	Arsenic	3.25		0.20	1.03	mg/Kg
Q1982-04	TP-4	SOIL	Barium	24.5		0.75	5.13	mg/Kg
Q1982-04	TP-4	SOIL	Beryllium	0.40		0.026	0.31	mg/Kg
Q1982-04	TP-4	SOIL	Calcium	633		11.4	103	mg/Kg
Q1982-04	TP-4	SOIL	Chromium	10.3		0.048	0.51	mg/Kg
Q1982-04	TP-4	SOIL	Cobalt	3.07		0.10	1.54	mg/Kg
Q1982-04	TP-4	SOIL	Copper	7.56		0.23	1.03	mg/Kg
Q1982-04	TP-4	SOIL	Iron	12400		4.09	5.13	mg/Kg
Q1982-04	TP-4	SOIL	Lead	12.0		0.13	0.62	mg/Kg
Q1982-04	TP-4	SOIL	Magnesium	560		12.3	103	mg/Kg
Q1982-04	TP-4	SOIL	Manganese	52.7		0.14	1.03	mg/Kg
Q1982-04	TP-4	SOIL	Mercury	0.067		0.0080	0.014	mg/Kg
Q1982-04	TP-4	SOIL	Nickel	5.92		0.13	2.05	mg/Kg
Q1982-04	TP-4	SOIL	Potassium	210		28.4	103	mg/Kg
Q1982-04	TP-4	SOIL	Silver	0.27	J	0.12	0.51	mg/Kg
Q1982-04	TP-4	SOIL	Sodium	82.9	J	18.3	103	mg/Kg
Q1982-04	TP-4	SOIL	Thallium	0.77	J	0.24	2.05	mg/Kg
Q1982-04	TP-4	SOIL	Vanadium	16.5		0.26	2.05	mg/Kg

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Hit Summary Sheet
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SDG No.: Q1982 **Order ID:** Q1982

Client: CDM Smith **Project ID:** South River WM Replacement

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1982-04	TP-4	SOIL	Zinc	31.1		0.24	2.05	mg/Kg
Client ID : TP-5								
Q1982-05	TP-5	SOIL	Aluminum	2780		0.84	5.01	mg/Kg
Q1982-05	TP-5	SOIL	Arsenic	2.96		0.19	1.00	mg/Kg
Q1982-05	TP-5	SOIL	Barium	12.2		0.73	5.01	mg/Kg
Q1982-05	TP-5	SOIL	Beryllium	0.38		0.025	0.30	mg/Kg
Q1982-05	TP-5	SOIL	Calcium	873		11.1	100	mg/Kg
Q1982-05	TP-5	SOIL	Chromium	7.77		0.047	0.50	mg/Kg
Q1982-05	TP-5	SOIL	Cobalt	1.37	J	0.10	1.50	mg/Kg
Q1982-05	TP-5	SOIL	Copper	7.46		0.22	1.00	mg/Kg
Q1982-05	TP-5	SOIL	Iron	14800		4.00	5.01	mg/Kg
Q1982-05	TP-5	SOIL	Lead	6.83		0.13	0.60	mg/Kg
Q1982-05	TP-5	SOIL	Magnesium	255		12.0	100	mg/Kg
Q1982-05	TP-5	SOIL	Manganese	24.7		0.14	1.00	mg/Kg
Q1982-05	TP-5	SOIL	Mercury	0.0080	J	0.0070	0.013	mg/Kg
Q1982-05	TP-5	SOIL	Nickel	2.38		0.13	2.00	mg/Kg
Q1982-05	TP-5	SOIL	Potassium	134		27.8	100	mg/Kg
Q1982-05	TP-5	SOIL	Silver	0.12	J	0.12	0.50	mg/Kg
Q1982-05	TP-5	SOIL	Sodium	54.6	J	17.8	100	mg/Kg
Q1982-05	TP-5	SOIL	Thallium	1.11	J	0.23	2.00	mg/Kg
Q1982-05	TP-5	SOIL	Vanadium	14.4		0.25	2.00	mg/Kg
Q1982-05	TP-5	SOIL	Zinc	13.6		0.23	2.00	mg/Kg
Client ID : TP-6								
Q1982-06	TP-6	SOIL	Aluminum	1110		0.89	5.32	mg/Kg
Q1982-06	TP-6	SOIL	Arsenic	1.26		0.20	1.06	mg/Kg
Q1982-06	TP-6	SOIL	Barium	2.61	J	0.78	5.32	mg/Kg
Q1982-06	TP-6	SOIL	Beryllium	0.37		0.027	0.32	mg/Kg
Q1982-06	TP-6	SOIL	Calcium	439		11.8	106	mg/Kg
Q1982-06	TP-6	SOIL	Chromium	4.85		0.050	0.53	mg/Kg
Q1982-06	TP-6	SOIL	Cobalt	0.72	J	0.11	1.60	mg/Kg
Q1982-06	TP-6	SOIL	Copper	6.37		0.23	1.06	mg/Kg
Q1982-06	TP-6	SOIL	Iron	21500		4.25	5.32	mg/Kg
Q1982-06	TP-6	SOIL	Lead	3.97		0.14	0.64	mg/Kg
Q1982-06	TP-6	SOIL	Magnesium	69.0	J	12.8	106	mg/Kg
Q1982-06	TP-6	SOIL	Manganese	145		0.15	1.06	mg/Kg
Q1982-06	TP-6	SOIL	Mercury	0.035		0.0080	0.014	mg/Kg
Q1982-06	TP-6	SOIL	Nickel	0.94	J	0.14	2.13	mg/Kg
Q1982-06	TP-6	SOIL	Potassium	139		29.5	106	mg/Kg
Q1982-06	TP-6	SOIL	Silver	0.30	J	0.13	0.53	mg/Kg

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Hit Summary Sheet
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SDG No.: Q1982 **Order ID:** Q1982

Client: CDM Smith **Project ID:** South River WM Replacement

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1982-06	TP-6	SOIL	Sodium	101	J	18.9	106	mg/Kg
Q1982-06	TP-6	SOIL	Thallium	1.78	J	0.25	2.13	mg/Kg
Q1982-06	TP-6	SOIL	Vanadium	6.98		0.27	2.13	mg/Kg
Q1982-06	TP-6	SOIL	Zinc	8.05		0.25	2.13	mg/Kg
Client ID : TP-8								
Q1982-07	TP-8	SOIL	Aluminum	2490		0.86	5.13	mg/Kg
Q1982-07	TP-8	SOIL	Arsenic	4.06		0.20	1.03	mg/Kg
Q1982-07	TP-8	SOIL	Barium	7.78		0.75	5.13	mg/Kg
Q1982-07	TP-8	SOIL	Beryllium	0.25	J	0.026	0.31	mg/Kg
Q1982-07	TP-8	SOIL	Calcium	585		11.4	103	mg/Kg
Q1982-07	TP-8	SOIL	Chromium	7.08		0.048	0.51	mg/Kg
Q1982-07	TP-8	SOIL	Cobalt	1.34	J	0.10	1.54	mg/Kg
Q1982-07	TP-8	SOIL	Copper	10.3		0.23	1.03	mg/Kg
Q1982-07	TP-8	SOIL	Iron	11200		4.09	5.13	mg/Kg
Q1982-07	TP-8	SOIL	Lead	13.8		0.13	0.62	mg/Kg
Q1982-07	TP-8	SOIL	Magnesium	486		12.3	103	mg/Kg
Q1982-07	TP-8	SOIL	Manganese	19.3		0.14	1.03	mg/Kg
Q1982-07	TP-8	SOIL	Mercury	0.020		0.0080	0.015	mg/Kg
Q1982-07	TP-8	SOIL	Nickel	2.56		0.13	2.05	mg/Kg
Q1982-07	TP-8	SOIL	Potassium	183		28.4	103	mg/Kg
Q1982-07	TP-8	SOIL	Silver	0.16	J	0.12	0.51	mg/Kg
Q1982-07	TP-8	SOIL	Sodium	352		18.3	103	mg/Kg
Q1982-07	TP-8	SOIL	Thallium	0.56	J	0.24	2.05	mg/Kg
Q1982-07	TP-8	SOIL	Vanadium	16.9		0.26	2.05	mg/Kg
Q1982-07	TP-8	SOIL	Zinc	20.8		0.24	2.05	mg/Kg
Client ID : TP-9								
Q1982-08	TP-9	SOIL	Aluminum	5380		0.97	5.77	mg/Kg
Q1982-08	TP-9	SOIL	Arsenic	10.5		0.22	1.15	mg/Kg
Q1982-08	TP-9	SOIL	Barium	3.89	J	0.84	5.77	mg/Kg
Q1982-08	TP-9	SOIL	Beryllium	1.27		0.029	0.35	mg/Kg
Q1982-08	TP-9	SOIL	Calcium	460		12.8	115	mg/Kg
Q1982-08	TP-9	SOIL	Chromium	15.6		0.054	0.58	mg/Kg
Q1982-08	TP-9	SOIL	Cobalt	1.72	J	0.12	1.73	mg/Kg
Q1982-08	TP-9	SOIL	Copper	32.3		0.25	1.15	mg/Kg
Q1982-08	TP-9	SOIL	Iron	81700		4.61	5.77	mg/Kg
Q1982-08	TP-9	SOIL	Lead	3.22		0.15	0.69	mg/Kg
Q1982-08	TP-9	SOIL	Magnesium	46.8	J	13.9	115	mg/Kg
Q1982-08	TP-9	SOIL	Manganese	1.98		0.16	1.15	mg/Kg
Q1982-08	TP-9	SOIL	Mercury	0.024		0.0080	0.015	mg/Kg

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Hit Summary Sheet
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SDG No.: Q1982 **Order ID:** Q1982

Client: CDM Smith **Project ID:** South River WM Replacement

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1982-08	TP-9	SOIL	Nickel	1.04	J	0.15	2.31	mg/Kg
Q1982-08	TP-9	SOIL	Potassium	177		32.0	115	mg/Kg
Q1982-08	TP-9	SOIL	Sodium	44.0	J	20.6	115	mg/Kg
Q1982-08	TP-9	SOIL	Thallium	7.36		0.27	2.31	mg/Kg
Q1982-08	TP-9	SOIL	Vanadium	22.0		0.29	2.31	mg/Kg
Q1982-08	TP-9	SOIL	Zinc	23.8		0.27	2.31	mg/Kg



SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	CDM Smith	Date Collected:	05/06/25
Project:	South River WM Replacement	Date Received:	05/07/25
Client Sample ID:	TP-1	SDG No.:	Q1982
Lab Sample ID:	Q1982-01	Matrix:	SOIL
Level (low/med):	low	% Solid:	80.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5780		1	0.98	5.80	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-36-0	Antimony	0.26	UN	1	0.26	2.90	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-38-2	Arsenic	1.81	N	1	0.22	1.16	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-39-3	Barium	31.4		1	0.85	5.80	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-41-7	Beryllium	0.49	N	1	0.029	0.35	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-43-9	Cadmium	0.028	U	1	0.028	0.35	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-70-2	Calcium	560	N	1	12.9	116	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-47-3	Chromium	11.2	N	1	0.055	0.58	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-48-4	Cobalt	3.32		1	0.12	1.74	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-50-8	Copper	8.28	N	1	0.26	1.16	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7439-89-6	Iron	8230		1	4.63	5.80	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7439-92-1	Lead	9.47		1	0.15	0.70	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7439-95-4	Magnesium	903	N	1	13.9	116	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7439-96-5	Manganese	29.5		1	0.16	1.16	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7439-97-6	Mercury	0.018		1	0.0090	0.017	mg/Kg	05/09/25 16:05	05/12/25 10:25	7471B	
7440-02-0	Nickel	6.62		1	0.15	2.32	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-09-7	Potassium	298	N	1	32.2	116	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7782-49-2	Selenium	0.30	UN	1	0.30	1.16	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-22-4	Silver	0.14	UN	1	0.14	0.58	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-23-5	Sodium	94.5	JN	1	20.7	116	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-28-0	Thallium	0.27	U	1	0.27	2.32	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-62-2	Vanadium	17.0	N	1	0.29	2.32	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050
7440-66-6	Zinc	21.2	N	1	0.27	2.32	mg/Kg	05/09/25 10:05	05/13/25 20:31	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

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

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

Report of Analysis

Client:	CDM Smith	Date Collected:	05/06/25
Project:	South River WM Replacement	Date Received:	05/07/25
Client Sample ID:	TP-2B	SDG No.:	Q1982
Lab Sample ID:	Q1982-02	Matrix:	SOIL
Level (low/med):	low	% Solid:	85

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2680		1	0.90	5.37	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-36-0	Antimony	0.24	UN	1	0.24	2.69	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-38-2	Arsenic	3.50	N	1	0.20	1.07	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-39-3	Barium	15.4		1	0.78	5.37	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-41-7	Beryllium	0.38	N	1	0.027	0.32	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-43-9	Cadmium	0.026	U	1	0.026	0.32	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-70-2	Calcium	315	N	1	11.9	107	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-47-3	Chromium	12.8	N	1	0.050	0.54	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-48-4	Cobalt	1.00	J	1	0.11	1.61	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-50-8	Copper	12.4	N	1	0.24	1.07	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7439-89-6	Iron	7820		1	4.29	5.37	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7439-92-1	Lead	10.8		1	0.14	0.65	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7439-95-4	Magnesium	463	N	1	12.9	107	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7439-96-5	Manganese	21.2		1	0.15	1.07	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7439-97-6	Mercury	0.0090	U	1	0.0090	0.016	mg/Kg	05/09/25 16:05	05/12/25 10:27	7471B	
7440-02-0	Nickel	2.26		1	0.14	2.15	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-09-7	Potassium	404	N	1	29.8	107	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7782-49-2	Selenium	0.28	UN	1	0.28	1.07	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-22-4	Silver	0.13	UN	1	0.13	0.54	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-23-5	Sodium	40.9	JN	1	19.1	107	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-28-0	Thallium	0.43	J	1	0.25	2.15	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-62-2	Vanadium	11.8	N	1	0.27	2.15	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050
7440-66-6	Zinc	7.19	N	1	0.25	2.15	mg/Kg	05/09/25 10:05	05/13/25 20:35	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

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

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	CDM Smith	Date Collected:	05/06/25
Project:	South River WM Replacement	Date Received:	05/07/25
Client Sample ID:	TP-3	SDG No.:	Q1982
Lab Sample ID:	Q1982-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	90.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	6860		1	0.88	5.23	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-36-0	Antimony	0.23	UN	1	0.23	2.61	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-38-2	Arsenic	0.98	JN	1	0.20	1.05	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-39-3	Barium	32.2		1	0.76	5.23	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-41-7	Beryllium	0.54	N	1	0.026	0.31	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-43-9	Cadmium	0.073	J	1	0.025	0.31	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-70-2	Calcium	127	N	1	11.6	105	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-47-3	Chromium	4.97	N	1	0.049	0.52	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-48-4	Cobalt	2.79		1	0.11	1.57	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-50-8	Copper	2.12	N	1	0.23	1.05	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7439-89-6	Iron	9220		1	4.17	5.23	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7439-92-1	Lead	3.44		1	0.14	0.63	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7439-95-4	Magnesium	180	N	1	12.5	105	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7439-96-5	Manganese	15.0		1	0.15	1.05	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7439-97-6	Mercury	0.0080	U	1	0.0080	0.014	mg/Kg	05/09/25 16:05	05/12/25 10:29	7471B	
7440-02-0	Nickel	3.55		1	0.14	2.09	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-09-7	Potassium	121	N	1	28.9	105	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7782-49-2	Selenium	0.27	UN	1	0.27	1.05	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-22-4	Silver	0.13	UN	1	0.13	0.52	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-23-5	Sodium	85.7	JN	1	18.6	105	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-28-0	Thallium	0.24	U	1	0.24	2.09	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-62-2	Vanadium	10.8	N	1	0.26	2.09	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050
7440-66-6	Zinc	9.47	N	1	0.24	2.09	mg/Kg	05/09/25 10:05	05/13/25 20:39	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

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

Client:	CDM Smith	Date Collected:	05/07/25
Project:	South River WM Replacement	Date Received:	05/07/25
Client Sample ID:	TP-4	SDG No.:	Q1982
Lab Sample ID:	Q1982-04	Matrix:	SOIL
Level (low/med):	low	% Solid:	87.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5780		1	0.86	5.13	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-36-0	Antimony	0.23	UN	1	0.23	2.57	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-38-2	Arsenic	3.25	N	1	0.20	1.03	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-39-3	Barium	24.5		1	0.75	5.13	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-41-7	Beryllium	0.40	N	1	0.026	0.31	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-43-9	Cadmium	0.025	U	1	0.025	0.31	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-70-2	Calcium	633	N	1	11.4	103	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-47-3	Chromium	10.3	N	1	0.048	0.51	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-48-4	Cobalt	3.07		1	0.10	1.54	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-50-8	Copper	7.56	N	1	0.23	1.03	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7439-89-6	Iron	12400		1	4.09	5.13	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7439-92-1	Lead	12.0		1	0.13	0.62	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7439-95-4	Magnesium	560	N	1	12.3	103	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7439-96-5	Manganese	52.7		1	0.14	1.03	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7439-97-6	Mercury	0.067		1	0.0080	0.014	mg/Kg	05/09/25 16:05	05/12/25 10:32	7471B	
7440-02-0	Nickel	5.92		1	0.13	2.05	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-09-7	Potassium	210	N	1	28.4	103	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7782-49-2	Selenium	0.27	UN	1	0.27	1.03	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-22-4	Silver	0.27	JN	1	0.12	0.51	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-23-5	Sodium	82.9	JN	1	18.3	103	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-28-0	Thallium	0.77	J	1	0.24	2.05	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-62-2	Vanadium	16.5	N	1	0.26	2.05	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050
7440-66-6	Zinc	31.1	N	1	0.24	2.05	mg/Kg	05/09/25 10:05	05/13/25 21:12	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

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

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	CDM Smith	Date Collected:	05/07/25
Project:	South River WM Replacement	Date Received:	05/07/25
Client Sample ID:	TP-5	SDG No.:	Q1982
Lab Sample ID:	Q1982-05	Matrix:	SOIL
Level (low/med):	low	% Solid:	89.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2780		1	0.84	5.01	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-36-0	Antimony	0.22	UN	1	0.22	2.51	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-38-2	Arsenic	2.96	N	1	0.19	1.00	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-39-3	Barium	12.2		1	0.73	5.01	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-41-7	Beryllium	0.38	N	1	0.025	0.30	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-43-9	Cadmium	0.024	U	1	0.024	0.30	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-70-2	Calcium	873	N	1	11.1	100	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-47-3	Chromium	7.77	N	1	0.047	0.50	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-48-4	Cobalt	1.37	J	1	0.10	1.50	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-50-8	Copper	7.46	N	1	0.22	1.00	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7439-89-6	Iron	14800		1	4.00	5.01	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7439-92-1	Lead	6.83		1	0.13	0.60	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7439-95-4	Magnesium	255	N	1	12.0	100	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7439-96-5	Manganese	24.7		1	0.14	1.00	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7439-97-6	Mercury	0.0080	J	1	0.0070	0.013	mg/Kg	05/09/25 16:05	05/12/25 10:34	7471B	
7440-02-0	Nickel	2.38		1	0.13	2.00	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-09-7	Potassium	134	N	1	27.8	100	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7782-49-2	Selenium	0.26	UN	1	0.26	1.00	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-22-4	Silver	0.12	JN	1	0.12	0.50	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-23-5	Sodium	54.6	JN	1	17.8	100	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-28-0	Thallium	1.11	J	1	0.23	2.00	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-62-2	Vanadium	14.4	N	1	0.25	2.00	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050
7440-66-6	Zinc	13.6	N	1	0.23	2.00	mg/Kg	05/09/25 10:05	05/13/25 21:17	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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Alliance TECHNICAL GROUP
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Report of Analysis

Client:	CDM Smith	Date Collected:	05/07/25
Project:	South River WM Replacement	Date Received:	05/07/25
Client Sample ID:	TP-6	SDG No.:	Q1982
Lab Sample ID:	Q1982-06	Matrix:	SOIL
Level (low/med):	low	% Solid:	86.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	1110		1	0.89	5.32	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-36-0	Antimony	0.23	UN	1	0.23	2.66	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-38-2	Arsenic	1.26	N	1	0.20	1.06	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-39-3	Barium	2.61	J	1	0.78	5.32	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-41-7	Beryllium	0.37	N	1	0.027	0.32	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-43-9	Cadmium	0.026	U	1	0.026	0.32	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-70-2	Calcium	439	N	1	11.8	106	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-47-3	Chromium	4.85	N	1	0.050	0.53	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-48-4	Cobalt	0.72	J	1	0.11	1.60	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-50-8	Copper	6.37	N	1	0.23	1.06	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7439-89-6	Iron	21500		1	4.25	5.32	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7439-92-1	Lead	3.97		1	0.14	0.64	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7439-95-4	Magnesium	69.0	JN	1	12.8	106	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7439-96-5	Manganese	145		1	0.15	1.06	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7439-97-6	Mercury	0.035		1	0.0080	0.014	mg/Kg	05/09/25 16:05	05/12/25 10:41	7471B	
7440-02-0	Nickel	0.94	J	1	0.14	2.13	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-09-7	Potassium	139	N	1	29.5	106	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7782-49-2	Selenium	0.28	UN	1	0.28	1.06	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-22-4	Silver	0.30	JN	1	0.13	0.53	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-23-5	Sodium	101	JN	1	18.9	106	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-28-0	Thallium	1.78	J	1	0.25	2.13	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-62-2	Vanadium	6.98	N	1	0.27	2.13	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050
7440-66-6	Zinc	8.05	N	1	0.25	2.13	mg/Kg	05/09/25 10:05	05/13/25 21:21	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

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

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

Report of Analysis

Client:	CDM Smith	Date Collected:	05/07/25
Project:	South River WM Replacement	Date Received:	05/07/25
Client Sample ID:	TP-8	SDG No.:	Q1982
Lab Sample ID:	Q1982-07	Matrix:	SOIL
Level (low/med):	low	% Solid:	83.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2490		1	0.86	5.13	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-36-0	Antimony	0.23	UN	1	0.23	2.56	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-38-2	Arsenic	4.06	N	1	0.20	1.03	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-39-3	Barium	7.78		1	0.75	5.13	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-41-7	Beryllium	0.25	JN	1	0.026	0.31	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-43-9	Cadmium	0.025	U	1	0.025	0.31	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-70-2	Calcium	585	N	1	11.4	103	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-47-3	Chromium	7.08	N	1	0.048	0.51	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-48-4	Cobalt	1.34	J	1	0.10	1.54	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-50-8	Copper	10.3	N	1	0.23	1.03	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7439-89-6	Iron	11200		1	4.09	5.13	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7439-92-1	Lead	13.8		1	0.13	0.62	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7439-95-4	Magnesium	486	N	1	12.3	103	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7439-96-5	Manganese	19.3		1	0.14	1.03	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7439-97-6	Mercury	0.020		1	0.0080	0.015	mg/Kg	05/09/25 16:05	05/12/25 10:43	7471B	
7440-02-0	Nickel	2.56		1	0.13	2.05	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-09-7	Potassium	183	N	1	28.4	103	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7782-49-2	Selenium	0.27	UN	1	0.27	1.03	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-22-4	Silver	0.16	JN	1	0.12	0.51	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-23-5	Sodium	352	N	1	18.3	103	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-28-0	Thallium	0.56	J	1	0.24	2.05	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-62-2	Vanadium	16.9	N	1	0.26	2.05	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050
7440-66-6	Zinc	20.8	N	1	0.24	2.05	mg/Kg	05/09/25 10:05	05/13/25 21:25	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

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

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	CDM Smith	Date Collected:	05/07/25
Project:	South River WM Replacement	Date Received:	05/07/25
Client Sample ID:	TP-9	SDG No.:	Q1982
Lab Sample ID:	Q1982-08	Matrix:	SOIL
Level (low/med):	low	% Solid:	81.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5380		1	0.97	5.77	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-36-0	Antimony	0.25	UN	1	0.25	2.89	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-38-2	Arsenic	10.5	N	1	0.22	1.15	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-39-3	Barium	3.89	J	1	0.84	5.77	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-41-7	Beryllium	1.27	N	1	0.029	0.35	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-43-9	Cadmium	0.028	U	1	0.028	0.35	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-70-2	Calcium	460	N	1	12.8	115	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-47-3	Chromium	15.6	N	1	0.054	0.58	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-48-4	Cobalt	1.72	J	1	0.12	1.73	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-50-8	Copper	32.3	N	1	0.25	1.15	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7439-89-6	Iron	81700		1	4.61	5.77	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7439-92-1	Lead	3.22		1	0.15	0.69	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7439-95-4	Magnesium	46.8	JN	1	13.9	115	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7439-96-5	Manganese	1.98		1	0.16	1.15	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7439-97-6	Mercury	0.024		1	0.0080	0.015	mg/Kg	05/09/25 16:05	05/12/25 10:45	7471B	
7440-02-0	Nickel	1.04	J	1	0.15	2.31	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-09-7	Potassium	177	N	1	32.0	115	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7782-49-2	Selenium	0.30	UN	1	0.30	1.15	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-22-4	Silver	0.14	UN	1	0.14	0.58	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-23-5	Sodium	44.0	JN	1	20.6	115	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-28-0	Thallium	7.36		1	0.27	2.31	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-62-2	Vanadium	22.0	N	1	0.29	2.31	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050
7440-66-6	Zinc	23.8	N	1	0.27	2.31	mg/Kg	05/09/25 10:05	05/13/25 21:29	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
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METAL CALIBRATION DATA

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

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV05	Mercury	3.88	4.0	97	90 - 110	CV	05/12/2025	09:56	LB135733

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Mercury	4.84	5.0	97	90 - 110	CV	05/12/2025	10:06	LB135733
CCV08	Mercury	4.89	5.0	98	90 - 110	CV	05/12/2025	10:36	LB135733
CCV09	Mercury	4.96	5.0	99	90 - 110	CV	05/12/2025	11:09	LB135733
CCV10	Mercury	4.96	5.0	99	90 - 110	CV	05/12/2025	11:36	LB135733
CCV11	Mercury	4.72	5.0	94	90 - 110	CV	05/12/2025	12:42	LB135733
CCV12	Mercury	4.97	5.0	99	90 - 110	CV	05/12/2025	13:17	LB135733

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2380	2500	95	90 - 110	P	05/13/2025	12:33	LB135756
	Antimony	1010	1000	101	90 - 110	P	05/13/2025	12:33	LB135756
	Arsenic	972	1000	97	90 - 110	P	05/13/2025	12:33	LB135756
	Barium	534	520	103	90 - 110	P	05/13/2025	12:33	LB135756
	Beryllium	486	510	95	90 - 110	P	05/13/2025	12:33	LB135756
	Cadmium	494	510	97	90 - 110	P	05/13/2025	12:33	LB135756
	Calcium	9360	10000	94	90 - 110	P	05/13/2025	12:33	LB135756
	Chromium	499	520	96	90 - 110	P	05/13/2025	12:33	LB135756
	Cobalt	484	520	93	90 - 110	P	05/13/2025	12:33	LB135756
	Copper	498	510	98	90 - 110	P	05/13/2025	12:33	LB135756
	Iron	9260	10000	93	90 - 110	P	05/13/2025	12:33	LB135756
	Lead	967	1000	97	90 - 110	P	05/13/2025	12:33	LB135756
	Magnesium	5540	6000	92	90 - 110	P	05/13/2025	12:33	LB135756
	Manganese	482	520	93	90 - 110	P	05/13/2025	12:33	LB135756
	Nickel	486	530	92	90 - 110	P	05/13/2025	12:33	LB135756
	Potassium	10300	9900	104	90 - 110	P	05/13/2025	12:33	LB135756
	Selenium	1010	1000	100	90 - 110	P	05/13/2025	12:33	LB135756
	Silver	239	250	96	90 - 110	P	05/13/2025	12:33	LB135756
	Sodium	9900	10000	99	90 - 110	P	05/13/2025	12:33	LB135756
	Thallium	999	1000	100	90 - 110	P	05/13/2025	12:33	LB135756
	Vanadium	474	500	95	90 - 110	P	05/13/2025	12:33	LB135756
	Zinc	983	1000	98	90 - 110	P	05/13/2025	12:33	LB135756

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	110	100	110	80 - 120	P	05/13/2025	12:50	LB135756
	Antimony	52.4	50.0	105	80 - 120	P	05/13/2025	12:50	LB135756
	Arsenic	20.9	20.0	105	80 - 120	P	05/13/2025	12:50	LB135756
	Barium	92.2	100	92	80 - 120	P	05/13/2025	12:50	LB135756
	Beryllium	6.11	6.0	102	80 - 120	P	05/13/2025	12:50	LB135756
	Cadmium	6.14	6.0	102	80 - 120	P	05/13/2025	12:50	LB135756
	Calcium	1970	2000	98	80 - 120	P	05/13/2025	12:50	LB135756
	Chromium	9.36	10.0	94	80 - 120	P	05/13/2025	12:50	LB135756
	Cobalt	29.8	30.0	99	80 - 120	P	05/13/2025	12:50	LB135756
	Copper	22.2	20.0	111	80 - 120	P	05/13/2025	12:50	LB135756
	Iron	97.3	100	97	80 - 120	P	05/13/2025	12:50	LB135756
	Lead	11.4	12.0	95	80 - 120	P	05/13/2025	12:50	LB135756
	Magnesium	2100	2000	105	80 - 120	P	05/13/2025	12:50	LB135756
	Manganese	20.6	20.0	103	80 - 120	P	05/13/2025	12:50	LB135756
	Nickel	39.5	40.0	99	80 - 120	P	05/13/2025	12:50	LB135756
	Potassium	1800	2000	90	80 - 120	P	05/13/2025	12:50	LB135756
	Selenium	23.2	20.0	116	80 - 120	P	05/13/2025	12:50	LB135756
	Silver	9.98	10.0	100	80 - 120	P	05/13/2025	12:50	LB135756
	Sodium	1690	2000	85	80 - 120	P	05/13/2025	12:50	LB135756
	Thallium	39.4	40.0	98	80 - 120	P	05/13/2025	12:50	LB135756
	Vanadium	38.9	40.0	97	80 - 120	P	05/13/2025	12:50	LB135756
	Zinc	41.9	40.0	105	80 - 120	P	05/13/2025	12:50	LB135756

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9820	10000	98	90 - 110	P	05/13/2025	13:21	LB135756
	Antimony	4880	5000	98	90 - 110	P	05/13/2025	13:21	LB135756
	Arsenic	4870	5000	97	90 - 110	P	05/13/2025	13:21	LB135756
	Barium	9590	10000	96	90 - 110	P	05/13/2025	13:21	LB135756
	Beryllium	253	250	101	90 - 110	P	05/13/2025	13:21	LB135756
	Cadmium	2440	2500	98	90 - 110	P	05/13/2025	13:21	LB135756
	Calcium	24400	25000	98	90 - 110	P	05/13/2025	13:21	LB135756
	Chromium	993	1000	99	90 - 110	P	05/13/2025	13:21	LB135756
	Cobalt	2430	2500	97	90 - 110	P	05/13/2025	13:21	LB135756
	Copper	1230	1250	99	90 - 110	P	05/13/2025	13:21	LB135756
	Iron	4830	5000	96	90 - 110	P	05/13/2025	13:21	LB135756
	Lead	4870	5000	97	90 - 110	P	05/13/2025	13:21	LB135756
	Magnesium	24400	25000	98	90 - 110	P	05/13/2025	13:21	LB135756
	Manganese	2430	2500	97	90 - 110	P	05/13/2025	13:21	LB135756
	Nickel	2440	2500	98	90 - 110	P	05/13/2025	13:21	LB135756
	Potassium	24000	25000	96	90 - 110	P	05/13/2025	13:21	LB135756
	Selenium	4880	5000	98	90 - 110	P	05/13/2025	13:21	LB135756
	Silver	1230	1250	99	90 - 110	P	05/13/2025	13:21	LB135756
	Sodium	24200	25000	97	90 - 110	P	05/13/2025	13:21	LB135756
	Thallium	4800	5000	96	90 - 110	P	05/13/2025	13:21	LB135756
	Vanadium	2420	2500	97	90 - 110	P	05/13/2025	13:21	LB135756
	Zinc	2480	2500	99	90 - 110	P	05/13/2025	13:21	LB135756
CCV02	Aluminum	9680	10000	97	90 - 110	P	05/13/2025	14:52	LB135756
	Antimony	4810	5000	96	90 - 110	P	05/13/2025	14:52	LB135756
	Arsenic	4790	5000	96	90 - 110	P	05/13/2025	14:52	LB135756
	Barium	9620	10000	96	90 - 110	P	05/13/2025	14:52	LB135756
	Beryllium	241	250	96	90 - 110	P	05/13/2025	14:52	LB135756
	Cadmium	2400	2500	96	90 - 110	P	05/13/2025	14:52	LB135756
	Calcium	24100	25000	96	90 - 110	P	05/13/2025	14:52	LB135756
	Chromium	969	1000	97	90 - 110	P	05/13/2025	14:52	LB135756
	Cobalt	2400	2500	96	90 - 110	P	05/13/2025	14:52	LB135756
	Copper	1210	1250	97	90 - 110	P	05/13/2025	14:52	LB135756
	Iron	4690	5000	94	90 - 110	P	05/13/2025	14:52	LB135756
	Lead	4800	5000	96	90 - 110	P	05/13/2025	14:52	LB135756

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	24000	25000	96	90 - 110	P	05/13/2025	14:52	LB135756
	Manganese	2410	2500	96	90 - 110	P	05/13/2025	14:52	LB135756
	Nickel	2400	2500	96	90 - 110	P	05/13/2025	14:52	LB135756
	Potassium	23500	25000	94	90 - 110	P	05/13/2025	14:52	LB135756
	Selenium	4800	5000	96	90 - 110	P	05/13/2025	14:52	LB135756
	Silver	1180	1250	95	90 - 110	P	05/13/2025	14:52	LB135756
	Sodium	23400	25000	94	90 - 110	P	05/13/2025	14:52	LB135756
	Thallium	5090	5000	102	90 - 110	P	05/13/2025	14:52	LB135756
	Vanadium	2410	2500	96	90 - 110	P	05/13/2025	14:52	LB135756
	Zinc	2390	2500	96	90 - 110	P	05/13/2025	14:52	LB135756
CCV03	Aluminum	9770	10000	98	90 - 110	P	05/13/2025	16:12	LB135756
	Antimony	5040	5000	101	90 - 110	P	05/13/2025	16:12	LB135756
	Arsenic	4950	5000	99	90 - 110	P	05/13/2025	16:12	LB135756
	Barium	9460	10000	95	90 - 110	P	05/13/2025	16:12	LB135756
	Beryllium	244	250	98	90 - 110	P	05/13/2025	16:12	LB135756
	Cadmium	2340	2500	94	90 - 110	P	05/13/2025	16:12	LB135756
	Calcium	23000	25000	92	90 - 110	P	05/13/2025	16:12	LB135756
	Chromium	956	1000	96	90 - 110	P	05/13/2025	16:12	LB135756
	Cobalt	2360	2500	95	90 - 110	P	05/13/2025	16:12	LB135756
	Copper	1240	1250	99	90 - 110	P	05/13/2025	16:12	LB135756
	Iron	4700	5000	94	90 - 110	P	05/13/2025	16:12	LB135756
	Lead	4730	5000	95	90 - 110	P	05/13/2025	16:12	LB135756
	Magnesium	22900	25000	92	90 - 110	P	05/13/2025	16:12	LB135756
	Manganese	2340	2500	94	90 - 110	P	05/13/2025	16:12	LB135756
	Nickel	2360	2500	95	90 - 110	P	05/13/2025	16:12	LB135756
	Potassium	24300	25000	97	90 - 110	P	05/13/2025	16:12	LB135756
	Selenium	5060	5000	101	90 - 110	P	05/13/2025	16:12	LB135756
	Silver	1230	1250	99	90 - 110	P	05/13/2025	16:12	LB135756
	Sodium	24400	25000	98	90 - 110	P	05/13/2025	16:12	LB135756
	Thallium	4950	5000	99	90 - 110	P	05/13/2025	16:12	LB135756
	Vanadium	2360	2500	94	90 - 110	P	05/13/2025	16:12	LB135756
	Zinc	2480	2500	99	90 - 110	P	05/13/2025	16:12	LB135756
CCV04	Aluminum	9670	10000	97	90 - 110	P	05/13/2025	17:40	LB135756
	Antimony	5020	5000	100	90 - 110	P	05/13/2025	17:40	LB135756

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4930	5000	99	90 - 110	P	05/13/2025	17:40	LB135756
	Barium	9540	10000	95	90 - 110	P	05/13/2025	17:40	LB135756
	Beryllium	239	250	96	90 - 110	P	05/13/2025	17:40	LB135756
	Cadmium	2330	2500	93	90 - 110	P	05/13/2025	17:40	LB135756
	Calcium	23000	25000	92	90 - 110	P	05/13/2025	17:40	LB135756
	Chromium	961	1000	96	90 - 110	P	05/13/2025	17:40	LB135756
	Cobalt	2360	2500	94	90 - 110	P	05/13/2025	17:40	LB135756
	Copper	1230	1250	99	90 - 110	P	05/13/2025	17:40	LB135756
	Iron	4850	5000	97	90 - 110	P	05/13/2025	17:40	LB135756
	Lead	4720	5000	94	90 - 110	P	05/13/2025	17:40	LB135756
	Magnesium	22800	25000	91	90 - 110	P	05/13/2025	17:40	LB135756
	Manganese	2340	2500	94	90 - 110	P	05/13/2025	17:40	LB135756
	Nickel	2360	2500	94	90 - 110	P	05/13/2025	17:40	LB135756
	Potassium	24800	25000	99	90 - 110	P	05/13/2025	17:40	LB135756
	Selenium	5020	5000	100	90 - 110	P	05/13/2025	17:40	LB135756
	Silver	1240	1250	99	90 - 110	P	05/13/2025	17:40	LB135756
	Sodium	24900	25000	100	90 - 110	P	05/13/2025	17:40	LB135756
	Thallium	5000	5000	100	90 - 110	P	05/13/2025	17:40	LB135756
	Vanadium	2370	2500	95	90 - 110	P	05/13/2025	17:40	LB135756
	Zinc	2490	2500	100	90 - 110	P	05/13/2025	17:40	LB135756
CCV05	Aluminum	9750	10000	98	90 - 110	P	05/13/2025	18:35	LB135756
	Antimony	5070	5000	101	90 - 110	P	05/13/2025	18:35	LB135756
	Arsenic	4980	5000	100	90 - 110	P	05/13/2025	18:35	LB135756
	Barium	9460	10000	95	90 - 110	P	05/13/2025	18:35	LB135756
	Beryllium	245	250	98	90 - 110	P	05/13/2025	18:35	LB135756
	Cadmium	2340	2500	94	90 - 110	P	05/13/2025	18:35	LB135756
	Calcium	22900	25000	92	90 - 110	P	05/13/2025	18:35	LB135756
	Chromium	959	1000	96	90 - 110	P	05/13/2025	18:35	LB135756
	Cobalt	2370	2500	95	90 - 110	P	05/13/2025	18:35	LB135756
	Copper	1240	1250	100	90 - 110	P	05/13/2025	18:35	LB135756
	Iron	4690	5000	94	90 - 110	P	05/13/2025	18:35	LB135756
	Lead	4750	5000	95	90 - 110	P	05/13/2025	18:35	LB135756
	Magnesium	22900	25000	92	90 - 110	P	05/13/2025	18:35	LB135756
	Manganese	2320	2500	93	90 - 110	P	05/13/2025	18:35	LB135756

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2370	2500	95	90 - 110	P	05/13/2025	18:35	LB135756
	Potassium	24000	25000	96	90 - 110	P	05/13/2025	18:35	LB135756
	Selenium	5090	5000	102	90 - 110	P	05/13/2025	18:35	LB135756
	Silver	1240	1250	99	90 - 110	P	05/13/2025	18:35	LB135756
	Sodium	24000	25000	96	90 - 110	P	05/13/2025	18:35	LB135756
	Thallium	5000	5000	100	90 - 110	P	05/13/2025	18:35	LB135756
	Vanadium	2360	2500	94	90 - 110	P	05/13/2025	18:35	LB135756
	Zinc	2480	2500	99	90 - 110	P	05/13/2025	18:35	LB135756
CCV06	Aluminum	9520	10000	95	90 - 110	P	05/13/2025	19:20	LB135756
	Antimony	4930	5000	99	90 - 110	P	05/13/2025	19:20	LB135756
	Arsenic	4850	5000	97	90 - 110	P	05/13/2025	19:20	LB135756
	Barium	9640	10000	96	90 - 110	P	05/13/2025	19:20	LB135756
	Beryllium	231	250	92	90 - 110	P	05/13/2025	19:20	LB135756
	Cadmium	2320	2500	93	90 - 110	P	05/13/2025	19:20	LB135756
	Calcium	23000	25000	92	90 - 110	P	05/13/2025	19:20	LB135756
	Chromium	955	1000	96	90 - 110	P	05/13/2025	19:20	LB135756
	Cobalt	2340	2500	94	90 - 110	P	05/13/2025	19:20	LB135756
	Copper	1220	1250	97	90 - 110	P	05/13/2025	19:20	LB135756
	Iron	4920	5000	98	90 - 110	P	05/13/2025	19:20	LB135756
	Lead	4690	5000	94	90 - 110	P	05/13/2025	19:20	LB135756
	Magnesium	22800	25000	91	90 - 110	P	05/13/2025	19:20	LB135756
	Manganese	2320	2500	93	90 - 110	P	05/13/2025	19:20	LB135756
	Nickel	2340	2500	93	90 - 110	P	05/13/2025	19:20	LB135756
	Potassium	24800	25000	99	90 - 110	P	05/13/2025	19:20	LB135756
	Selenium	4920	5000	98	90 - 110	P	05/13/2025	19:20	LB135756
	Silver	1220	1250	98	90 - 110	P	05/13/2025	19:20	LB135756
	Sodium	24500	25000	98	90 - 110	P	05/13/2025	19:20	LB135756
	Thallium	5010	5000	100	90 - 110	P	05/13/2025	19:20	LB135756
	Vanadium	2360	2500	95	90 - 110	P	05/13/2025	19:20	LB135756
	Zinc	2440	2500	97	90 - 110	P	05/13/2025	19:20	LB135756
CCV07	Aluminum	9610	10000	96	90 - 110	P	05/13/2025	20:06	LB135756
	Antimony	4910	5000	98	90 - 110	P	05/13/2025	20:06	LB135756
	Arsenic	4850	5000	97	90 - 110	P	05/13/2025	20:06	LB135756
	Barium	9250	10000	92	90 - 110	P	05/13/2025	20:06	LB135756

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Beryllium	247	250	99	90 - 110	P	05/13/2025	20:06	LB135756
	Cadmium	2320	2500	93	90 - 110	P	05/13/2025	20:06	LB135756
	Calcium	22900	25000	91	90 - 110	P	05/13/2025	20:06	LB135756
	Chromium	952	1000	95	90 - 110	P	05/13/2025	20:06	LB135756
	Cobalt	2340	2500	94	90 - 110	P	05/13/2025	20:06	LB135756
	Copper	1220	1250	97	90 - 110	P	05/13/2025	20:06	LB135756
	Iron	4590	5000	92	90 - 110	P	05/13/2025	20:06	LB135756
	Lead	4680	5000	94	90 - 110	P	05/13/2025	20:06	LB135756
	Magnesium	22900	25000	92	90 - 110	P	05/13/2025	20:06	LB135756
	Manganese	2310	2500	92	90 - 110	P	05/13/2025	20:06	LB135756
	Nickel	2340	2500	94	90 - 110	P	05/13/2025	20:06	LB135756
	Potassium	23300	25000	93	90 - 110	P	05/13/2025	20:06	LB135756
	Selenium	4920	5000	98	90 - 110	P	05/13/2025	20:06	LB135756
	Silver	1220	1250	98	90 - 110	P	05/13/2025	20:06	LB135756
	Sodium	23100	25000	92	90 - 110	P	05/13/2025	20:06	LB135756
	Thallium	5000	5000	100	90 - 110	P	05/13/2025	20:06	LB135756
	Vanadium	2340	2500	94	90 - 110	P	05/13/2025	20:06	LB135756
	Zinc	2440	2500	98	90 - 110	P	05/13/2025	20:06	LB135756
CCV08	Aluminum	9520	10000	95	90 - 110	P	05/13/2025	20:52	LB135756
	Antimony	4940	5000	99	90 - 110	P	05/13/2025	20:52	LB135756
	Arsenic	4910	5000	98	90 - 110	P	05/13/2025	20:52	LB135756
	Barium	9500	10000	95	90 - 110	P	05/13/2025	20:52	LB135756
	Beryllium	233	250	93	90 - 110	P	05/13/2025	20:52	LB135756
	Cadmium	2350	2500	94	90 - 110	P	05/13/2025	20:52	LB135756
	Calcium	22900	25000	92	90 - 110	P	05/13/2025	20:52	LB135756
	Chromium	954	1000	95	90 - 110	P	05/13/2025	20:52	LB135756
	Cobalt	2360	2500	94	90 - 110	P	05/13/2025	20:52	LB135756
	Copper	1220	1250	98	90 - 110	P	05/13/2025	20:52	LB135756
	Iron	4890	5000	98	90 - 110	P	05/13/2025	20:52	LB135756
	Lead	4720	5000	94	90 - 110	P	05/13/2025	20:52	LB135756
	Magnesium	22700	25000	91	90 - 110	P	05/13/2025	20:52	LB135756
	Manganese	2320	2500	93	90 - 110	P	05/13/2025	20:52	LB135756
	Nickel	2360	2500	94	90 - 110	P	05/13/2025	20:52	LB135756
	Potassium	24700	25000	99	90 - 110	P	05/13/2025	20:52	LB135756

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV08	Selenium	4990	5000	100	90 - 110	P	05/13/2025	20:52	LB135756
	Silver	1220	1250	97	90 - 110	P	05/13/2025	20:52	LB135756
	Sodium	24400	25000	98	90 - 110	P	05/13/2025	20:52	LB135756
	Thallium	4990	5000	100	90 - 110	P	05/13/2025	20:52	LB135756
	Vanadium	2350	2500	94	90 - 110	P	05/13/2025	20:52	LB135756
	Zinc	2440	2500	97	90 - 110	P	05/13/2025	20:52	LB135756
CCV09	Aluminum	9440	10000	94	90 - 110	P	05/13/2025	21:38	LB135756
	Antimony	4940	5000	99	90 - 110	P	05/13/2025	21:38	LB135756
	Arsenic	4940	5000	99	90 - 110	P	05/13/2025	21:38	LB135756
	Barium	9270	10000	93	90 - 110	P	05/13/2025	21:38	LB135756
	Beryllium	236	250	94	90 - 110	P	05/13/2025	21:38	LB135756
	Cadmium	2370	2500	95	90 - 110	P	05/13/2025	21:38	LB135756
	Calcium	22800	25000	91	90 - 110	P	05/13/2025	21:38	LB135756
	Chromium	958	1000	96	90 - 110	P	05/13/2025	21:38	LB135756
	Cobalt	2370	2500	95	90 - 110	P	05/13/2025	21:38	LB135756
	Copper	1220	1250	98	90 - 110	P	05/13/2025	21:38	LB135756
	Iron	4760	5000	95	90 - 110	P	05/13/2025	21:38	LB135756
	Lead	4760	5000	95	90 - 110	P	05/13/2025	21:38	LB135756
	Magnesium	22900	25000	92	90 - 110	P	05/13/2025	21:38	LB135756
	Manganese	2290	2500	92	90 - 110	P	05/13/2025	21:38	LB135756
	Nickel	2380	2500	95	90 - 110	P	05/13/2025	21:38	LB135756
	Potassium	23800	25000	95	90 - 110	P	05/13/2025	21:38	LB135756
	Selenium	5000	5000	100	90 - 110	P	05/13/2025	21:38	LB135756
	Silver	1210	1250	96	90 - 110	P	05/13/2025	21:38	LB135756
	Sodium	23600	25000	94	90 - 110	P	05/13/2025	21:38	LB135756
	Thallium	4930	5000	99	90 - 110	P	05/13/2025	21:38	LB135756
	Vanadium	2330	2500	93	90 - 110	P	05/13/2025	21:38	LB135756
	Zinc	2410	2500	96	90 - 110	P	05/13/2025	21:38	LB135756
CCV10	Aluminum	9430	10000	94	90 - 110	P	05/13/2025	22:25	LB135756
	Antimony	4860	5000	97	90 - 110	P	05/13/2025	22:25	LB135756
	Arsenic	4820	5000	96	90 - 110	P	05/13/2025	22:25	LB135756
	Barium	9220	10000	92	90 - 110	P	05/13/2025	22:25	LB135756
	Beryllium	237	250	95	90 - 110	P	05/13/2025	22:25	LB135756
	Cadmium	2320	2500	93	90 - 110	P	05/13/2025	22:25	LB135756

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10	Calcium	22500	25000	90	90 - 110	P	05/13/2025	22:25	LB135756
	Chromium	944	1000	94	90 - 110	P	05/13/2025	22:25	LB135756
	Cobalt	2340	2500	93	90 - 110	P	05/13/2025	22:25	LB135756
	Copper	1200	1250	96	90 - 110	P	05/13/2025	22:25	LB135756
	Iron	4650	5000	93	90 - 110	P	05/13/2025	22:25	LB135756
	Lead	4670	5000	94	90 - 110	P	05/13/2025	22:25	LB135756
	Magnesium	22600	25000	90	90 - 110	P	05/13/2025	22:25	LB135756
	Manganese	2270	2500	91	90 - 110	P	05/13/2025	22:25	LB135756
	Nickel	2330	2500	93	90 - 110	P	05/13/2025	22:25	LB135756
	Potassium	23400	25000	94	90 - 110	P	05/13/2025	22:25	LB135756
	Selenium	4870	5000	97	90 - 110	P	05/13/2025	22:25	LB135756
	Silver	1200	1250	96	90 - 110	P	05/13/2025	22:25	LB135756
	Sodium	23500	25000	94	90 - 110	P	05/13/2025	22:25	LB135756
	Thallium	4900	5000	98	90 - 110	P	05/13/2025	22:25	LB135756
	Vanadium	2320	2500	93	90 - 110	P	05/13/2025	22:25	LB135756
	Zinc	2390	2500	96	90 - 110	P	05/13/2025	22:25	LB135756

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Metals

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CRDL STANDARD FOR AA & ICP

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.20	0.2	100	40 - 160	CV	05/12/2025	10:11	LB135733
CRI01	Aluminum	112	100	112	65 - 135	P	05/13/2025	13:00	LB135756
	Antimony	53.0	50.0	106	65 - 135	P	05/13/2025	13:00	LB135756
	Arsenic	22.6	20.0	113	65 - 135	P	05/13/2025	13:00	LB135756
	Barium	91.9	100	92	65 - 135	P	05/13/2025	13:00	LB135756
	Beryllium	6.28	6.0	105	65 - 135	P	05/13/2025	13:00	LB135756
	Cadmium	6.41	6.0	107	65 - 135	P	05/13/2025	13:00	LB135756
	Calcium	1990	2000	100	65 - 135	P	05/13/2025	13:00	LB135756
	Chromium	9.49	10.0	95	65 - 135	P	05/13/2025	13:00	LB135756
	Cobalt	29.7	30.0	99	65 - 135	P	05/13/2025	13:00	LB135756
	Copper	22.3	20.0	112	65 - 135	P	05/13/2025	13:00	LB135756
	Iron	96.7	100	97	65 - 135	P	05/13/2025	13:00	LB135756
	Lead	11.7	12.0	97	65 - 135	P	05/13/2025	13:00	LB135756
	Magnesium	2110	2000	106	65 - 135	P	05/13/2025	13:00	LB135756
	Manganese	20.2	20.0	101	65 - 135	P	05/13/2025	13:00	LB135756
	Nickel	40.2	40.0	100	65 - 135	P	05/13/2025	13:00	LB135756
	Potassium	1830	2000	91	65 - 135	P	05/13/2025	13:00	LB135756
	Selenium	24.0	20.0	120	65 - 135	P	05/13/2025	13:00	LB135756
	Silver	10.1	10.0	101	65 - 135	P	05/13/2025	13:00	LB135756
	Sodium	1700	2000	85	65 - 135	P	05/13/2025	13:00	LB135756
	Thallium	38.6	40.0	96	65 - 135	P	05/13/2025	13:00	LB135756
	Vanadium	38.1	40.0	95	65 - 135	P	05/13/2025	13:00	LB135756
	Zinc	42.6	40.0	107	65 - 135	P	05/13/2025	13:00	LB135756

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB05	Mercury	0.20	+/-0.20	U	0.20	CV	05/12/2025	09:58	LB135733

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB07	Mercury	0.20	+/-0.20	U	0.20	CV	05/12/2025	10:08	LB135733
CCB08	Mercury	0.20	+/-0.20	U	0.20	CV	05/12/2025	10:39	LB135733
CCB09	Mercury	0.20	+/-0.20	U	0.20	CV	05/12/2025	11:11	LB135733
CCB10	Mercury	0.20	+/-0.20	U	0.20	CV	05/12/2025	11:39	LB135733
CCB11	Mercury	0.20	+/-0.20	U	0.20	CV	05/12/2025	12:53	LB135733
CCB12	Mercury	0.20	+/-0.20	U	0.20	CV	05/12/2025	13:27	LB135733

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	05/13/2025	12:55	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	12:55	LB135756
	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	12:55	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	12:55	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	12:55	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	12:55	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	12:55	LB135756
	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	12:55	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	12:55	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	12:55	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	12:55	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	12:55	LB135756
	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	12:55	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	12:55	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	12:55	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	12:55	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	12:55	LB135756
	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	12:55	LB135756
	Sodium	2000	+/-2000	U	2000	P	05/13/2025	12:55	LB135756
	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	12:55	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	12:55	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	12:55	LB135756

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	100	P	05/13/2025	13:26	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	13:26	LB135756
	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	13:26	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	13:26	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	13:26	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	13:26	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	13:26	LB135756
	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	13:26	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	13:26	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	13:26	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	13:26	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	13:26	LB135756
	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	13:26	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	13:26	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	13:26	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	13:26	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	13:26	LB135756
	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	13:26	LB135756
	Sodium	2000	+/-2000	U	2000	P	05/13/2025	13:26	LB135756
	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	13:26	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	13:26	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	13:26	LB135756
CCB02	Aluminum	16.5	+/-100	J	100	P	05/13/2025	14:56	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	14:56	LB135756
	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	14:56	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	14:56	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	14:56	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	14:56	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	14:56	LB135756
	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	14:56	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	14:56	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	14:56	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	14:56	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	14:56	LB135756
	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	14:56	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	14:56	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	14:56	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	14:56	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	14:56	LB135756

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	14:56	LB135756
	Sodium	2000	+/-2000	U	2000	P	05/13/2025	14:56	LB135756
	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	14:56	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	14:56	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	14:56	LB135756
CCB03	Aluminum	100	+/-100	U	100	P	05/13/2025	16:47	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	16:47	LB135756
	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	16:47	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	16:47	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	16:47	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	16:47	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	16:47	LB135756
	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	16:47	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	16:47	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	16:47	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	16:47	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	16:47	LB135756
	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	16:47	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	16:47	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	16:47	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	16:47	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	16:47	LB135756
	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	16:47	LB135756
	Sodium	2000	+/-2000	U	2000	P	05/13/2025	16:47	LB135756
	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	16:47	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	16:47	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	16:47	LB135756
CCB04	Aluminum	11.3	+/-100	J	100	P	05/13/2025	17:46	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	17:46	LB135756
	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	17:46	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	17:46	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	17:46	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	17:46	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	17:46	LB135756
	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	17:46	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	17:46	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	17:46	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	17:46	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	17:46	LB135756

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	17:46	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	17:46	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	17:46	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	17:46	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	17:46	LB135756
	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	17:46	LB135756
	Sodium	956	+/-2000	J	2000	P	05/13/2025	17:46	LB135756
	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	17:46	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	17:46	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	17:46	LB135756
CCB05	Aluminum	14.7	+/-100	J	100	P	05/13/2025	18:39	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	18:39	LB135756
	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	18:39	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	18:39	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	18:39	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	18:39	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	18:39	LB135756
	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	18:39	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	18:39	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	18:39	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	18:39	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	18:39	LB135756
	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	18:39	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	18:39	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	18:39	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	18:39	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	18:39	LB135756
	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	18:39	LB135756
	Sodium	2000	+/-2000	U	2000	P	05/13/2025	18:39	LB135756
	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	18:39	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	18:39	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	18:39	LB135756
CCB06	Aluminum	100	+/-100	U	100	P	05/13/2025	19:25	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	19:25	LB135756
	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	19:25	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	19:25	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	19:25	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	19:25	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	19:25	LB135756

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	19:25	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	19:25	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	19:25	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	19:25	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	19:25	LB135756
	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	19:25	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	19:25	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	19:25	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	19:25	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	19:25	LB135756
	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	19:25	LB135756
	Sodium	2000	+/-2000	U	2000	P	05/13/2025	19:25	LB135756
	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	19:25	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	19:25	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	19:25	LB135756
CCB07	Aluminum	100	+/-100	U	100	P	05/13/2025	20:10	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	20:10	LB135756
	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	20:10	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	20:10	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	20:10	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	20:10	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	20:10	LB135756
	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	20:10	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	20:10	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	20:10	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	20:10	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	20:10	LB135756
	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	20:10	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	20:10	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	20:10	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	20:10	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	20:10	LB135756
	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	20:10	LB135756
	Sodium	2000	+/-2000	U	2000	P	05/13/2025	20:10	LB135756
	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	20:10	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	20:10	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	20:10	LB135756
CCB08	Aluminum	100	+/-100	U	100	P	05/13/2025	20:56	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	20:56	LB135756

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	20:56	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	20:56	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	20:56	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	20:56	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	20:56	LB135756
	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	20:56	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	20:56	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	20:56	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	20:56	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	20:56	LB135756
	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	20:56	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	20:56	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	20:56	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	20:56	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	20:56	LB135756
	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	20:56	LB135756
	Sodium	2000	+/-2000	U	2000	P	05/13/2025	20:56	LB135756
	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	20:56	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	20:56	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	20:56	LB135756
CCB09	Aluminum	13.1	+/-100	J	100	P	05/13/2025	21:42	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	21:42	LB135756
	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	21:42	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	21:42	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	21:42	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	21:42	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	21:42	LB135756
	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	21:42	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	21:42	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	21:42	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	21:42	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	21:42	LB135756
	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	21:42	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	21:42	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	21:42	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	21:42	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	21:42	LB135756
	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	21:42	LB135756
	Sodium	2000	+/-2000	U	2000	P	05/13/2025	21:42	LB135756

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB09	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	21:42	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	21:42	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	21:42	LB135756
CCB10	Aluminum	100	+/-100	U	100	P	05/13/2025	22:29	LB135756
	Antimony	50.0	+/-50.0	U	50.0	P	05/13/2025	22:29	LB135756
	Arsenic	20.0	+/-20.0	U	20.0	P	05/13/2025	22:29	LB135756
	Barium	100	+/-100	U	100	P	05/13/2025	22:29	LB135756
	Beryllium	6.00	+/-6.00	U	6.00	P	05/13/2025	22:29	LB135756
	Cadmium	6.00	+/-6.00	U	6.00	P	05/13/2025	22:29	LB135756
	Calcium	2000	+/-2000	U	2000	P	05/13/2025	22:29	LB135756
	Chromium	10.0	+/-10.0	U	10.0	P	05/13/2025	22:29	LB135756
	Cobalt	30.0	+/-30.0	U	30.0	P	05/13/2025	22:29	LB135756
	Copper	20.0	+/-20.0	U	20.0	P	05/13/2025	22:29	LB135756
	Iron	100	+/-100	U	100	P	05/13/2025	22:29	LB135756
	Lead	12.0	+/-12.0	U	12.0	P	05/13/2025	22:29	LB135756
	Magnesium	2000	+/-2000	U	2000	P	05/13/2025	22:29	LB135756
	Manganese	20.0	+/-20.0	U	20.0	P	05/13/2025	22:29	LB135756
	Nickel	40.0	+/-40.0	U	40.0	P	05/13/2025	22:29	LB135756
	Potassium	2000	+/-2000	U	2000	P	05/13/2025	22:29	LB135756
	Selenium	20.0	+/-20.0	U	20.0	P	05/13/2025	22:29	LB135756
	Silver	10.0	+/-10.0	U	10.0	P	05/13/2025	22:29	LB135756
	Sodium	2000	+/-2000	U	2000	P	05/13/2025	22:29	LB135756
	Thallium	40.0	+/-40.0	U	40.0	P	05/13/2025	22:29	LB135756
	Vanadium	40.0	+/-40.0	U	40.0	P	05/13/2025	22:29	LB135756
	Zinc	40.0	+/-40.0	U	40.0	P	05/13/2025	22:29	LB135756

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Metals
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PREPARATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB167937BL		**SOLID**		**Batch Number:**	**PB167937**		**Prep Date:**	**05/09/2025**	
	Mercury	0.013	<0.013	U	0.013	CV	05/12/2025	10:18	LB135733

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB167930BL		**SOLID**		**Batch Number:**	**PB167930**		**Prep Date:**	**05/09/2025**	
	Aluminum	4.85	<4.85	U	4.85	P	05/13/2025	14:35	LB135756
	Antimony	2.43	<2.43	U	2.43	P	05/13/2025	14:35	LB135756
	Arsenic	0.97	<0.97	U	0.97	P	05/13/2025	14:35	LB135756
	Barium	4.85	<4.85	U	4.85	P	05/13/2025	14:35	LB135756
	Beryllium	0.29	<0.29	U	0.29	P	05/13/2025	14:35	LB135756
	Cadmium	0.29	<0.29	U	0.29	P	05/13/2025	14:35	LB135756
	Calcium	97.1	<97.1	U	97.1	P	05/13/2025	14:35	LB135756
	Chromium	0.49	<0.49	U	0.49	P	05/13/2025	14:35	LB135756
	Cobalt	1.46	<1.46	U	1.46	P	05/13/2025	14:35	LB135756
	Copper	0.97	<0.97	U	0.97	P	05/13/2025	14:35	LB135756
	Iron	4.85	<4.85	U	4.85	P	05/13/2025	14:35	LB135756
	Lead	0.58	<0.58	U	0.58	P	05/13/2025	14:35	LB135756
	Magnesium	97.1	<97.1	U	97.1	P	05/13/2025	14:35	LB135756
	Manganese	0.97	<0.97	U	0.97	P	05/13/2025	14:35	LB135756
	Nickel	1.94	<1.94	U	1.94	P	05/13/2025	14:35	LB135756
	Potassium	97.1	<97.1	U	97.1	P	05/13/2025	14:35	LB135756
	Selenium	0.97	<0.97	U	0.97	P	05/13/2025	14:35	LB135756
	Silver	0.49	<0.49	U	0.49	P	05/13/2025	14:35	LB135756
	Sodium	97.1	<97.1	U	97.1	P	05/13/2025	14:35	LB135756
	Thallium	1.94	<1.94	U	1.94	P	05/13/2025	14:35	LB135756
	Vanadium	1.94	<1.94	U	1.94	P	05/13/2025	14:35	LB135756
	Zinc	1.94	<1.94	U	1.94	P	05/13/2025	14:35	LB135756

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Metals
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INTERFERENCE CHECK SAMPLE

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	239000	255000	94	216000	294000	05/13/2025	13:04	LB135756
	Antimony	-2.63			-50	50	05/13/2025	13:04	LB135756
	Arsenic	2.65			-20	20	05/13/2025	13:04	LB135756
	Barium	4.53	6.0	76	-94	106	05/13/2025	13:04	LB135756
	Beryllium	1.18			-6	6	05/13/2025	13:04	LB135756
	Cadmium	-2.58	1.0	258	-5	7	05/13/2025	13:04	LB135756
	Calcium	224000	245000	91	208000	282000	05/13/2025	13:04	LB135756
	Chromium	53.8	52.0	104	42	62	05/13/2025	13:04	LB135756
	Cobalt	1.07			-30	30	05/13/2025	13:04	LB135756
	Copper	-0.62	2.0	31	-18	22	05/13/2025	13:04	LB135756
	Iron	89000	101000	88	85600	116500	05/13/2025	13:04	LB135756
	Lead	-1.23			-12	12	05/13/2025	13:04	LB135756
	Magnesium	242000	255000	95	216000	294000	05/13/2025	13:04	LB135756
	Manganese	3.97	7.0	57	-13	27	05/13/2025	13:04	LB135756
	Nickel	2.16	2.0	108	-38	42	05/13/2025	13:04	LB135756
	Potassium	-28.4			0	0	05/13/2025	13:04	LB135756
	Selenium	-7.51			-20	20	05/13/2025	13:04	LB135756
	Silver	0.22			-10	10	05/13/2025	13:04	LB135756
	Sodium	-36.6			0	0	05/13/2025	13:04	LB135756
	Thallium	8.65			-40	40	05/13/2025	13:04	LB135756
	Vanadium	-0.39			-40	40	05/13/2025	13:04	LB135756
	Zinc	3.75			-40	40	05/13/2025	13:04	LB135756
ICSAB01	Aluminum	237000	247000	96	209000	285000	05/13/2025	13:08	LB135756
	Antimony	599	618	97	525	711	05/13/2025	13:08	LB135756
	Arsenic	106	104	102	88.4	120	05/13/2025	13:08	LB135756
	Barium	447	537	83	437	637	05/13/2025	13:08	LB135756
	Beryllium	486	495	98	420	570	05/13/2025	13:08	LB135756
	Cadmium	952	972	98	826	1120	05/13/2025	13:08	LB135756
	Calcium	222000	235000	94	199000	271000	05/13/2025	13:08	LB135756
	Chromium	527	542	97	460	624	05/13/2025	13:08	LB135756
	Cobalt	469	476	98	404	548	05/13/2025	13:08	LB135756
	Copper	467	511	91	434	588	05/13/2025	13:08	LB135756
	Iron	90600	99300	91	84400	114500	05/13/2025	13:08	LB135756
	Lead	43.6	49.0	89	37	61	05/13/2025	13:08	LB135756
	Magnesium	239000	248000	96	210000	286000	05/13/2025	13:08	LB135756
	Manganese	455	507	90	430	584	05/13/2025	13:08	LB135756
	Nickel	932	954	98	810	1100	05/13/2025	13:08	LB135756
	Potassium	-41.5			0	0	05/13/2025	13:08	LB135756
	Selenium	37.1	46.0	81	26	66	05/13/2025	13:08	LB135756
	Silver	203	201	101	170	232	05/13/2025	13:08	LB135756
	Sodium	-168			0	0	05/13/2025	13:08	LB135756
	Thallium	92.7	108	86	68	148	05/13/2025	13:08	LB135756

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Metals
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INTERFERENCE CHECK SAMPLE

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Vanadium	444	491	90	417	565	05/13/2025	13:08	LB135756
	Zinc	978	952	103	809	1095	05/13/2025	13:08	LB135756

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metals
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MATRIX SPIKE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q1982

contract: CAMP02 **lab code:** CHEM **case no.:** Q1982 **sas no.:** Q1982

matrix: Solid **sample id:** Q1982-03 **client id:** TP-3MS

Percent Solids for Sample: 90.7 **Spiked ID:** Q1982-03MS **Percent Solids for Spike Sample:** 90.7

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	7410		6860		99.8	546		P
Antimony	mg/Kg	75 - 125	10.5		2.61	U	39.9	26	N	P
Arsenic	mg/Kg	75 - 125	26.8		0.98	J	39.9	65	N	P
Barium	mg/Kg	75 - 125	43.1		32.2		10.0	109		P
Beryllium	mg/Kg	75 - 125	6.73		0.54		10.0	62	N	P
Cadmium	mg/Kg	75 - 125	9.18		0.073	J	10.0	91		P
Calcium	mg/Kg	75 - 125	158		127		49.9	61	N	P
Chromium	mg/Kg	75 - 125	17.3		4.97		20.0	62	N	P
Cobalt	mg/Kg	75 - 125	12.1		2.79		10.0	93		P
Copper	mg/Kg	75 - 125	11.6		2.12		15.0	63	N	P
Iron	mg/Kg	75 - 125	9840		9220		150	410		P
Lead	mg/Kg	75 - 125	47.7		3.44		49.9	89		P
Magnesium	mg/Kg	75 - 125	266		180		99.8	86		P
Manganese	mg/Kg	75 - 125	22.8		15.0		10.0	77		P
Nickel	mg/Kg	75 - 125	26.4		3.55		24.9	92		P
Potassium	mg/Kg	75 - 125	469		121		500	70	N	P
Selenium	mg/Kg	75 - 125	61.4		1.05	U	99.8	62	N	P
Silver	mg/Kg	75 - 125	2.63		0.52	U	3.7	71	N	P
Sodium	mg/Kg	75 - 125	192		85.7	J	150	71	N	P
Thallium	mg/Kg	75 - 125	91.0		2.09	U	99.8	91		P
Vanadium	mg/Kg	75 - 125	21.0		10.8		15.0	68	N	P
Zinc	mg/Kg	75 - 125	15.8		9.47		10.0	64	N	P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q1982

contract: CAMP02 **lab code:** CHEM **case no.:** Q1982 **sas no.:** Q1982

matrix: Solid **sample id:** Q1982-03 **client id:** TP-3MSD

Percent Solids for Sample: 90.7 **Spiked ID:** Q1982-03MSD **Percent Solids for Spike Sample:** 90.7

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	7580		6860		100	716		P
Antimony	mg/Kg	75 - 125	11.2		2.61	U	40.5	28	N	P
Arsenic	mg/Kg	75 - 125	28.1		0.98	J	40.5	67	N	P
Barium	mg/Kg	75 - 125	41.1		32.2		10.1	88		P
Beryllium	mg/Kg	75 - 125	7.40		0.54		10.1	68	N	P
Cadmium	mg/Kg	75 - 125	9.34		0.073	J	10.1	92		P
Calcium	mg/Kg	75 - 125	164		127		50.6	74	N	P
Chromium	mg/Kg	75 - 125	18.0		4.97		20.2	64	N	P
Cobalt	mg/Kg	75 - 125	12.5		2.79		10.1	96		P
Copper	mg/Kg	75 - 125	12.4		2.12		15.2	67	N	P
Iron	mg/Kg	75 - 125	9490		9220		150	178		P
Lead	mg/Kg	75 - 125	48.2		3.44		50.6	88		P
Magnesium	mg/Kg	75 - 125	248		180		100	68	N	P
Manganese	mg/Kg	75 - 125	23.4		15.0		10.1	83		P
Nickel	mg/Kg	75 - 125	26.7		3.55		25.3	91		P
Potassium	mg/Kg	75 - 125	430		121		510	61	N	P
Selenium	mg/Kg	75 - 125	64.0		1.05	U	100	64	N	P
Silver	mg/Kg	75 - 125	2.58		0.52	U	3.8	68	N	P
Sodium	mg/Kg	75 - 125	184		85.7	J	150	66	N	P
Thallium	mg/Kg	75 - 125	94.1		2.09	U	100	94		P
Vanadium	mg/Kg	75 - 125	22.1		10.8		15.2	75		P
Zinc	mg/Kg	75 - 125	16.4		9.47		10.1	68	N	P

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metals
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MATRIX SPIKE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q1982

contract: CAMP02 **lab code:** CHEM **case no.:** Q1982 **sas no.:** Q1982

matrix: Solid **sample id:** Q1983-01 **client id:** OR-636-COMP-01MS

Percent Solids for Sample: 88.8 **Spiked ID:** Q1983-01MS **Percent Solids for Spike Sample:** 88.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.27		0.026		0.29	84		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q1982

contract: CAMP02 **lab code:** CHEM **case no.:** Q1982 **sas no.:** Q1982

matrix: Solid **sample id:** Q1983-01 **client id:** OR-636-COMP-01MSD

Percent Solids for Sample: 88.8 **Spiked ID:** Q1983-01MSD **Percent Solids for Spike Sample:** 88.8

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.25		0.026		0.27	83		CV

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Metals
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POST DIGEST SPIKE SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Matrix: Solid **Level:** LOW **Client ID:** TP-3A

Sample ID: Q1982-03 **Spiked ID:** Q1982-03A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	mg/Kg	75 - 125	28.4		2.61	U	41.8	68	N	P
Arsenic	mg/Kg	75 - 125	28.6		0.98	J	41.8	66	N	P
Beryllium	mg/Kg	75 - 125	7.38		0.54		10.5	65	N	P
Calcium	mg/Kg	75 - 125	161		127		52.3	65	N	P
Chromium	mg/Kg	75 - 125	18.5		4.97		20.9	65	N	P
Copper	mg/Kg	75 - 125	12.1		2.12		15.7	64	N	P
Magnesium	mg/Kg	75 - 125	253		180		100	73	N	P
Potassium	mg/Kg	75 - 125	472		121		520	68	N	P
Selenium	mg/Kg	75 - 125	66.0		1.05	U	100	66	N	P
Silver	mg/Kg	75 - 125	2.72		0.52	U	3.90	70	N	P
Sodium	mg/Kg	75 - 125	194		85.7	J	160	67	N	P
Vanadium	mg/Kg	75 - 125	21.4		10.8		15.7	68	N	P
Zinc	mg/Kg	75 - 125	16.4		9.47		10.5	66	N	P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Matrix: Solid **Sample ID:** Q1982-03 **Client ID:** TP-3DUP

Percent Solids for Sample: 90.7 **Duplicate ID** Q1982-03DUP **Percent Solids for Spike Sample:** 90.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	6860		7020		2		P
Antimony	mg/Kg	20	2.61	U	2.41	U			P
Arsenic	mg/Kg	20	0.98	J	1.13		14		P
Barium	mg/Kg	20	32.2		36.2		12		P
Beryllium	mg/Kg	20	0.54		0.52		4		P
Cadmium	mg/Kg	20	0.073	J	0.093	J	24		P
Calcium	mg/Kg	20	127		126		1		P
Chromium	mg/Kg	20	4.97		4.55		9		P
Cobalt	mg/Kg	20	2.79		2.81		1		P
Copper	mg/Kg	20	2.12		1.92		10		P
Iron	mg/Kg	20	9220		9330		1		P
Lead	mg/Kg	20	3.44		3.65		6		P
Magnesium	mg/Kg	20	180		191		6		P
Manganese	mg/Kg	20	15.0		16.3		8		P
Nickel	mg/Kg	20	3.55		3.74		5		P
Potassium	mg/Kg	20	121		136		12		P
Selenium	mg/Kg	20	1.05	U	0.96	U			P
Silver	mg/Kg	20	0.52	U	0.48	U			P
Sodium	mg/Kg	20	85.7	J	95.5	J	11		P
Thallium	mg/Kg	20	2.09	U	1.93	U			P
Vanadium	mg/Kg	20	10.8		11.3		5		P
Zinc	mg/Kg	20	9.47		9.37		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Matrix: Solid **Sample ID:** Q1982-03MS **Client ID:** TP-3MSD

Percent Solids for Sample: 90.7 **Duplicate ID** Q1982-03MSD **Percent Solids for Spike Sample:** 90.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	7410		7580		2		P
Antimony	mg/Kg	20	10.5		11.2		6		P
Arsenic	mg/Kg	20	26.8		28.1		5		P
Barium	mg/Kg	20	43.1		41.1		5		P
Beryllium	mg/Kg	20	6.73		7.40		9		P
Cadmium	mg/Kg	20	9.18		9.34		2		P
Calcium	mg/Kg	20	158		164		4		P
Chromium	mg/Kg	20	17.3		18.0		4		P
Cobalt	mg/Kg	20	12.1		12.5		3		P
Copper	mg/Kg	20	11.6		12.4		7		P
Iron	mg/Kg	20	9840		9490		4		P
Lead	mg/Kg	20	47.7		48.2		1		P
Magnesium	mg/Kg	20	266		248		7		P
Manganese	mg/Kg	20	22.8		23.4		3		P
Nickel	mg/Kg	20	26.4		26.7		1		P
Potassium	mg/Kg	20	469		430		9		P
Selenium	mg/Kg	20	61.4		64.0		4		P
Silver	mg/Kg	20	2.63		2.58		2		P
Sodium	mg/Kg	20	192		184		4		P
Thallium	mg/Kg	20	91.0		94.1		3		P
Vanadium	mg/Kg	20	21.0		22.1		5		P
Zinc	mg/Kg	20	15.8		16.4		4		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Matrix: Solid **Sample ID:** Q1983-01 **Client ID:** OR-636-COMP-01DUP

Percent Solids for Sample: 88.8 **Duplicate ID** Q1983-01DUP **Percent Solids for Spike Sample:** 88.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.026		0.030		14		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Matrix: Solid **Sample ID:** Q1983-01MS **Client ID:** OR-636-COMP-01MSD

Percent Solids for Sample: 88.8 **Duplicate ID** Q1983-01MSD **Percent Solids for Spike Sample:** 88.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.27		0.25		8		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167930BS							
Aluminum	mg/Kg	93.5	85.9		92	80 - 120	P
Antimony	mg/Kg	37.4	36.7		98	80 - 120	P
Arsenic	mg/Kg	37.4	35.6		95	80 - 120	P
Barium	mg/Kg	9.3	8.32		90	80 - 120	P
Beryllium	mg/Kg	9.3	8.73		94	80 - 120	P
Cadmium	mg/Kg	9.3	8.94		96	80 - 120	P
Calcium	mg/Kg	46.7	44.2	J	95	80 - 120	P
Chromium	mg/Kg	18.7	18.0		96	80 - 120	P
Cobalt	mg/Kg	9.3	8.68		93	80 - 120	P
Copper	mg/Kg	14.0	13.7		98	80 - 120	P
Iron	mg/Kg	140	133		95	80 - 120	P
Lead	mg/Kg	46.7	43.8		94	80 - 120	P
Magnesium	mg/Kg	93.5	85.3	J	91	80 - 120	P
Manganese	mg/Kg	9.3	8.76		94	80 - 120	P
Nickel	mg/Kg	23.4	21.9		94	80 - 120	P
Potassium	mg/Kg	470	434		92	80 - 120	P
Selenium	mg/Kg	93.5	89.6		96	80 - 120	P
Silver	mg/Kg	3.5	3.31		95	80 - 120	P
Sodium	mg/Kg	140	137		98	80 - 120	P
Thallium	mg/Kg	93.5	94.0		100	80 - 120	P
Vanadium	mg/Kg	14.0	12.8		91	80 - 120	P
Zinc	mg/Kg	9.3	9.06		97	80 - 120	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167937BS							
Mercury	mg/Kg	0.26	0.26		99	80 - 120	CV

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ICP SERIAL DILUTIONS

SAMPLE NO.

TP-3L

Lab Name: Chemtech Consulting Group **Contract:** CAMP02

Lab Code: CHEM **Lb No.:** lb135756 **Lab Sample ID :** Q1982-03L **SDG No.:** Q1982

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	6860		8410		22		P
Antimony	2.61	U	13.1	U			P
Arsenic	0.98	J	1.17	J	20		P
Barium	32.2		38.7		20		P
Beryllium	0.54		0.63	J	18		P
Cadmium	0.073	J	1.57	U	100.0		P
Calcium	127		165	J	30		P
Chromium	4.97		6.10		23		P
Cobalt	2.79		2.69	J	4		P
Copper	2.12		2.49	J	17		P
Iron	9220		11600		25		P
Lead	3.44		3.66		6		P
Magnesium	180		221	J	23		P
Manganese	15.0		18.4		23		P
Nickel	3.55		3.51	J	1		P
Potassium	121		152	J	26		P
Selenium	1.05	U	5.23	U			P
Silver	0.52	U	2.61	U			P
Sodium	85.7	J	523	U	100.0		P
Thallium	2.09	U	10.4	U			P
Vanadium	10.8		13.0		21		P
Zinc	9.47		11.8		25		P

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ICP SERIAL DILUTIONS

SAMPLE NO.

OR-636-COMP-01L

Lab Name: Chemtech Consulting Group **Contract:** CAMP02

Lab Code: CHEM **Lb No.:** lb135733 **Lab Sample ID :** Q1983-01L **SDG No.:** Q1982

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.026		0.070	U	100.0		CV

METAL PREPARATION & INSTRUMENT DATA

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ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Aluminum	396.100	0.0000000	-0.0002060	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	-0.0075970	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0054900
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Aluminum	396.100	0.0000000	0.0000000	0.0000590	0.0000000	0.0396900
Antimony	206.833	0.0122000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000710	-0.0003400
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0017400	-0.0100400
Vanadium	292.402	-0.0025100	0.0000000	0.0000000	0.0000000	-0.0072000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Aluminum	396.100	0.0000000	0.0000000	0.0012800	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q1982 **SAS No.:** Q1982

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0035600	-0.0007970	0.0000000	-0.0018900	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0039700	0.0000000	-0.0115600	0.0000000
Vanadium	292.402	0.0000000	0.0005320	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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SAMPLE PREPARATION SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Method:**

Case No.: Q1982 **SAS No.:** Q1982

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167930**						
PB167930BL	PB167930BL	MB	SOLID	05/09/2025	2.06	100.0	100.00
PB167930BS	PB167930BS	LCS	SOLID	05/09/2025	2.14	100.0	100.00
Q1982-01	TP-1	SAM	SOLID	05/09/2025	2.13	100.0	80.90
Q1982-02	TP-2B	SAM	SOLID	05/09/2025	2.19	100.0	85.00
Q1982-03	TP-3	SAM	SOLID	05/09/2025	2.11	100.0	90.70
Q1982-03DUP	TP-3DUP	DUP	SOLID	05/09/2025	2.29	100.0	90.70
Q1982-03MS	TP-3MS	MS	SOLID	05/09/2025	2.21	100.0	90.70
Q1982-03MSD	TP-3MSD	MSD	SOLID	05/09/2025	2.18	100.0	90.70
Q1982-04	TP-4	SAM	SOLID	05/09/2025	2.23	100.0	87.40
Q1982-05	TP-5	SAM	SOLID	05/09/2025	2.22	100.0	89.90
Q1982-06	TP-6	SAM	SOLID	05/09/2025	2.18	100.0	86.20
Q1982-07	TP-8	SAM	SOLID	05/09/2025	2.33	100.0	83.70
Q1982-08	TP-9	SAM	SOLID	05/09/2025	2.13	100.0	81.30

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SAMPLE PREPARATION SUMMARY

Client: CDM Smith **SDG No.:** Q1982

Contract: CAMP02 **Lab Code:** CHEM **Method:**

Case No.: Q1982 **SAS No.:** Q1982

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167937**						
PB167937BL	PB167937BL	MB	SOLID	05/09/2025	0.55	35.0	100.00
PB167937BS	PB167937BS	LCS	SOLID	05/09/2025	0.53	35.0	100.00
Q1982-01	TP-1	SAM	SOLID	05/09/2025	0.51	35.0	80.90
Q1982-02	TP-2B	SAM	SOLID	05/09/2025	0.53	35.0	85.00
Q1982-03	TP-3	SAM	SOLID	05/09/2025	0.54	35.0	90.70
Q1982-04	TP-4	SAM	SOLID	05/09/2025	0.58	35.0	87.40
Q1982-05	TP-5	SAM	SOLID	05/09/2025	0.58	35.0	89.90
Q1982-06	TP-6	SAM	SOLID	05/09/2025	0.58	35.0	86.20
Q1982-07	TP-8	SAM	SOLID	05/09/2025	0.55	35.0	83.70
Q1982-08	TP-9	SAM	SOLID	05/09/2025	0.57	35.0	81.30
Q1983-01DUP	OR-636-COMP-01DUP	DUP	SOLID	05/09/2025	0.57	35.0	88.80
Q1983-01MS	OR-636-COMP-01MS	MS	SOLID	05/09/2025	0.55	35.0	88.80
Q1983-01MSD	OR-636-COMP-01MSD	MSD	SOLID	05/09/2025	0.58	35.0	88.80

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metals
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ANALYSIS RUN LOG

Client: CDM Smith **Contract:** CAMP02

Lab code: CHEM **Case no.:** Q1982 **Sas no.:** Q1982 **Sdg no.:** Q1982

Instrument id number: **Method:** **Run number:** LB135733

Start date: 05/12/2025 **End date:** 05/12/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0936	HG
S0.2	S0.2	1	0938	HG
S2.5	S2.5	1	0940	HG
S5	S5	1	0945	HG
S7.5	S7.5	1	0947	HG
S10	S10	1	0953	HG
ICV05	ICV05	1	0956	HG
ICB05	ICB05	1	0958	HG
CCV07	CCV07	1	1006	HG
CCB07	CCB07	1	1008	HG
CRA	CRA	1	1011	HG
PB167937BL	PB167937BL	1	1018	HG
PB167937BS	PB167937BS	1	1022	HG
Q1982-01	TP-1	1	1025	HG
Q1982-02	TP-2B	1	1027	HG
Q1982-03	TP-3	1	1029	HG
Q1982-04	TP-4	1	1032	HG
Q1982-05	TP-5	1	1034	HG
CCV08	CCV08	1	1036	HG
CCB08	CCB08	1	1039	HG
Q1982-06	TP-6	1	1041	HG
Q1982-07	TP-8	1	1043	HG
Q1982-08	TP-9	1	1045	HG
Q1983-01DUP	OR-636-COMP-01DUP	1	1050	HG
Q1983-01MS	OR-636-COMP-01MS	1	1052	HG
Q1983-01MSD	OR-636-COMP-01MSD	1	1055	HG
CCV09	CCV09	1	1109	HG
CCB09	CCB09	1	1111	HG
CCV10	CCV10	1	1136	HG
CCB10	CCB10	1	1139	HG
CCV11	CCV11	1	1242	HG
CCB11	CCB11	1	1253	HG
Q1983-01L	OR-636-COMP-01L	5	1308	HG
CCV12	CCV12	1	1317	HG
CCB12	CCB12	1	1327	HG

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metals
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ANALYSIS RUN LOG

Client: CDM Smith **Contract:** CAMP02

Lab code: CHEM **Case no.:** Q1982 **Sas no.:** Q1982 **Sdg no.:** Q1982

Instrument id number: **Method:** **Run number:** LB135756

Start date: 05/13/2025 **End date:** 05/13/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1207	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1211	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1216	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1220	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1224	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1228	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1233	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1250	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1255	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1300	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1304	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1308	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1321	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1326	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB167930BL	PB167930BL	1	1435	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1452	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1456	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB167930BS	PB167930BS	1	1500	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1612	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1647	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1740	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1746	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1835	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1839	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1920	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1925	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV07	CCV07	1	2006	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	2010	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-01	TP-1	1	2031	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-02	TP-2B	1	2035	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-03	TP-3	1	2039	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-03DUP	TP-3DUP	1	2043	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-03L	TP-3L	5	2048	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV08	CCV08	1	2052	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB08	CCB08	1	2056	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-03MS	TP-3MS	1	2100	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-03MSD	TP-3MSD	1	2104	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-03A	TP-3A	1	2108	Ag,As,Be,Ca,Cr,Cu,K,Mg,Na,Sb,Se,V,Zn
Q1982-04	TP-4	1	2112	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-05	TP-5	1	2117	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-06	TP-6	1	2121	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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metals
- 14 -
ANALYSIS RUN LOG

Client: CDM Smith **Contract:** CAMP02

Lab code: CHEM **Case no.:** Q1982 **Sas no.:** Q1982 **Sdg no.:** Q1982

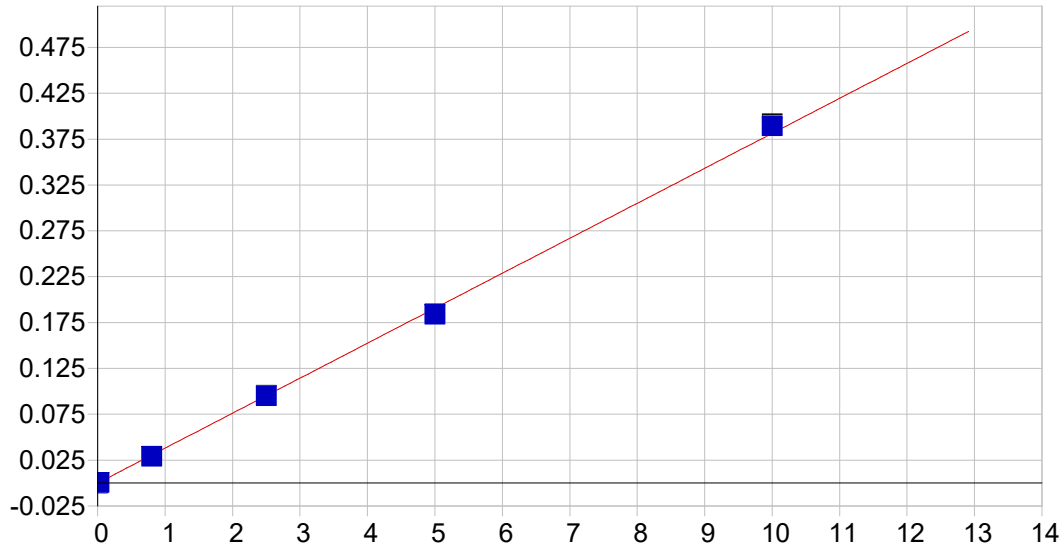
Instrument id number: **Method:** **Run number:** LB135756

Start date: 05/13/2025 **End date:** 05/13/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
Q1982-07	TP-8	1	2125	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1982-08	TP-9	1	2129	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV09	CCV09	1	2138	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB09	CCB09	1	2142	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV10	CCV10	1	2225	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB10	CCB10	1	2229	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

METAL
RAW DATA

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



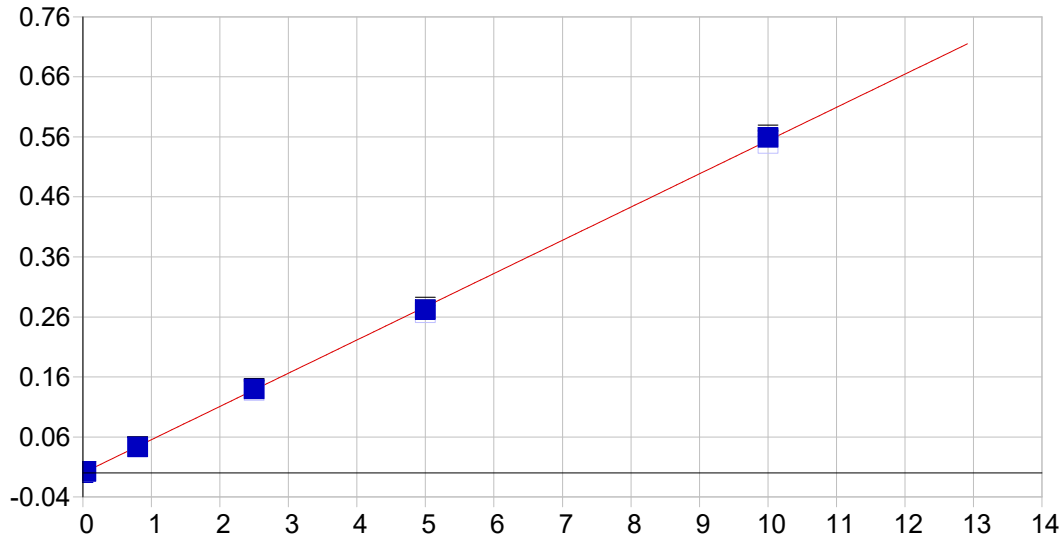
As 189.042 {479}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000085	Re-Slope:	1.000000
A1 (Gain):	0.038142	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999658	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.003793		
Predicted MQL:	0.012644		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00008	.000	1
S1	.02000	.01912	-.001	-4.41	.00064	.000	1
S3	2.5000	2.4944	-.006	-.222	.09495	.001	1
S4	5.0000	4.8252	-.175	-3.50	.18375	.000	1
S5	10.000	10.217	.217	2.17	.38921	.002	1
S2	.80000	.76389	-.036	-4.51	.02902	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



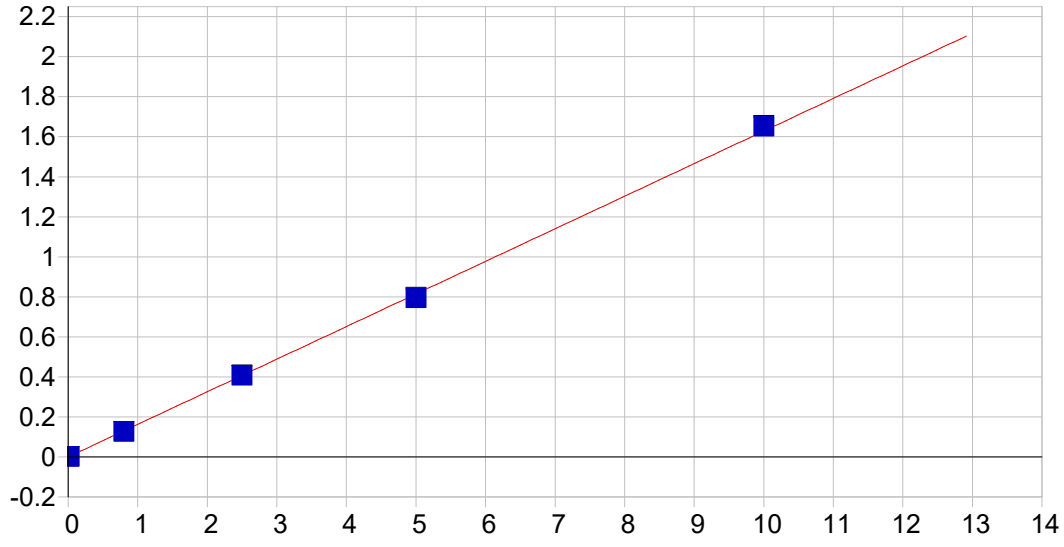
Tl 190.856 {477}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000089	Re-Slope:	1.000000
A1 (Gain):	0.055411	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999914	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	0.002403		
Predicted MQL:	0.008011		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00009	.000	1
S1	.04000	.04207	.002	5.18	.00210	.000	1
S3	2.5000	2.5189	.019	.755	.13693	.001	1
S4	5.0000	4.9089	-.091	-1.82	.26682	.004	1
S5	10.000	10.087	.087	.874	.54866	.004	1
S2	.80000	.78281	-.017	-2.15	.04247	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



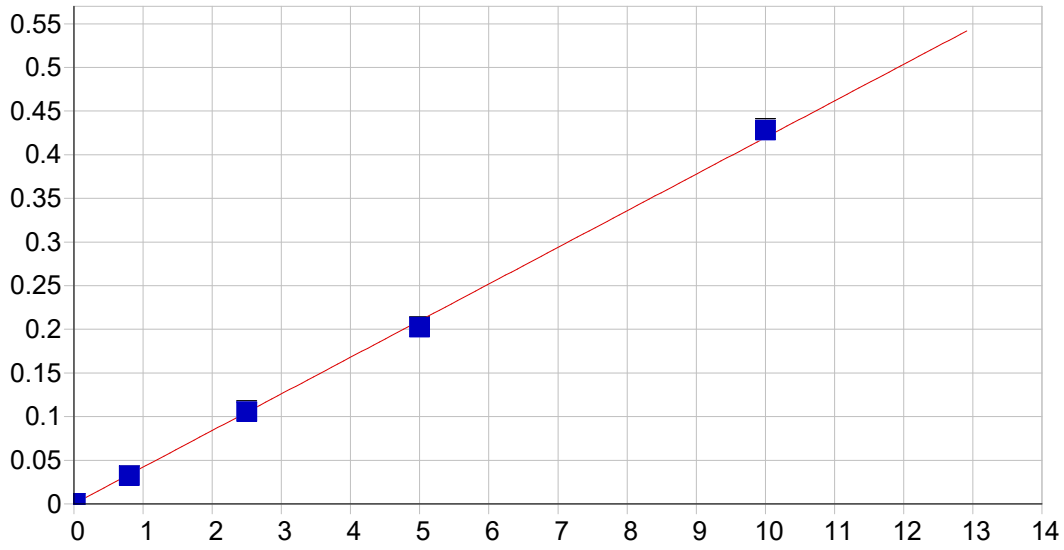
Pb 220.353 {453}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000139	Re-Slope:	1.000000
A1 (Gain):	0.162858	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999836	Status:	OK.
Std Error of Est:	0.000053		
Predicted MDL:	0.001899		
Predicted MQL:	0.006332		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00014	.001	1
S1	.01200	.01122	-.001	-6.52	.00165	.000	1
S3	2.5000	2.5015	.002	.061	.40683	.002	1
S4	5.0000	4.8764	-.124	-2.47	.79318	.004	1
S5	10.000	10.147	.147	1.47	1.6507	.004	1
S2	.80000	.77600	-.024	-3.00	.12610	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



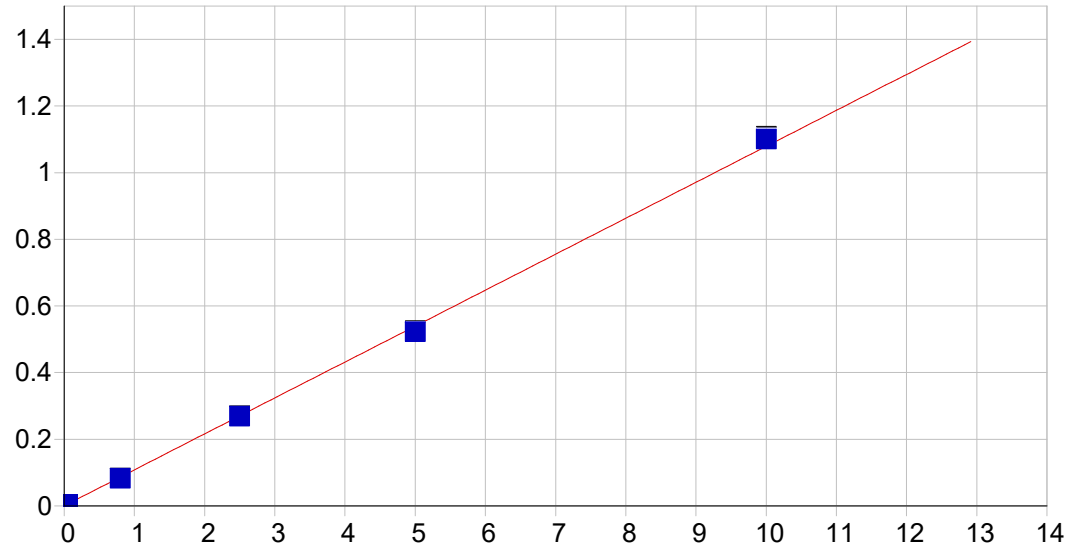
Se 196.090 {472}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000204	Re-Slope:	1.000000
A1 (Gain):	0.041944	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999648	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.004453		
Predicted MQL:	0.014844		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00020	.000	1
S1	.02000	.02263	.003	13.1	.00115	.000	1
S3	2.5000	2.5156	.016	.624	.10568	.001	1
S4	5.0000	4.8194	-.181	-3.61	.20228	.001	1
S5	10.000	10.201	.201	2.01	.42793	.002	1
S2	.80000	.76134	-.039	-4.83	.03213	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



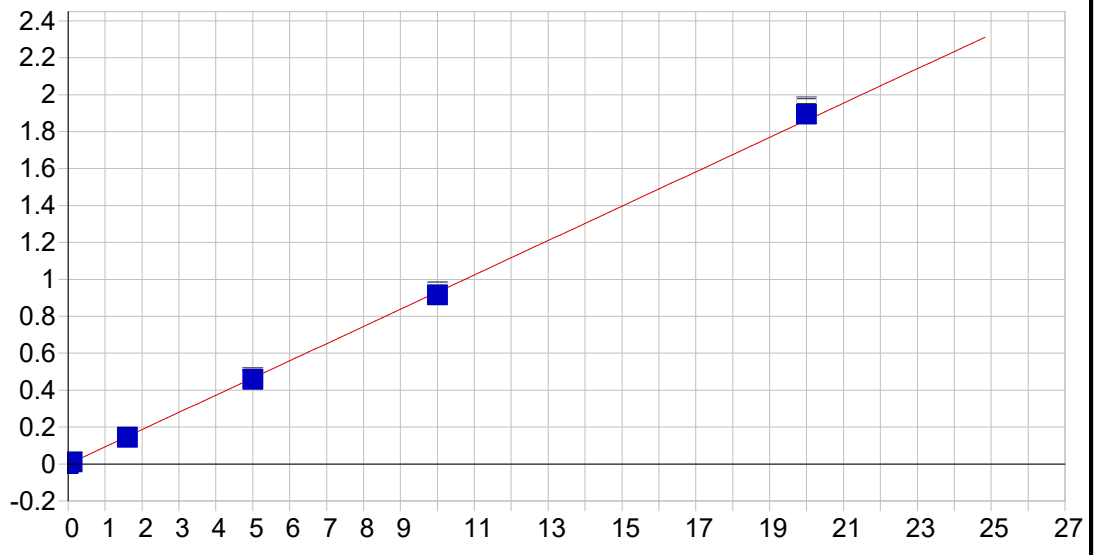
Sb 206.833 {463}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000326	Re-Slope:	1.000000
A1 (Gain):	0.107865	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999698	Status:	OK.
Std Error of Est:	0.000099		
Predicted MDL:	0.002480		
Predicted MQL:	0.008267		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00033	.000	1
S1	.05000	.05202	.002	4.05	.00595	.000	1
S3	2.5000	2.4921	-.008	-.315	.26987	.001	1
S4	5.0000	4.8367	-.163	-3.27	.52350	.002	1
S5	10.000	10.204	.204	2.04	1.1039	.005	1
S2	.80000	.76500	-.035	-4.37	.08308	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



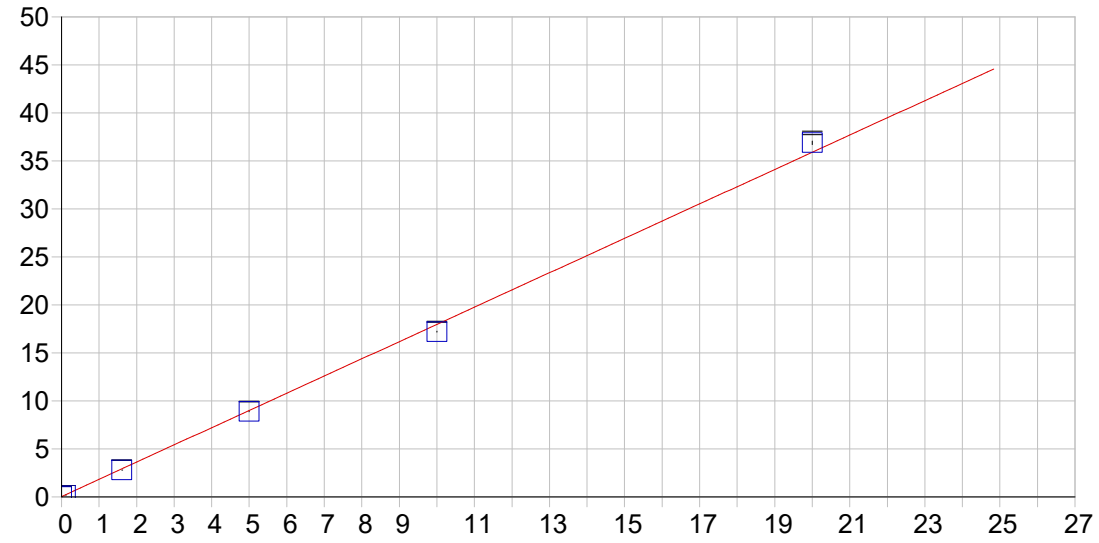
Al 396.152 { 85}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000206	Re-Slope:	1.000000
A1 (Gain):	0.093069	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999814	Status:	OK.
Std Error of Est:	0.000136		
Predicted MDL:	0.006347		
Predicted MQL:	0.021157		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00021	.000	1
S1	.10000	.10546	.005	5.46	.01074	.001	1
S3	5.0000	4.9054	-.095	-1.89	.46578	.001	1
S4	10.000	9.8219	-.178	-1.78	.93237	.000	1
S5	20.000	20.339	.339	1.69	1.9292	.005	1
S2	1.6000	1.5284	-.072	-4.48	.14534	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



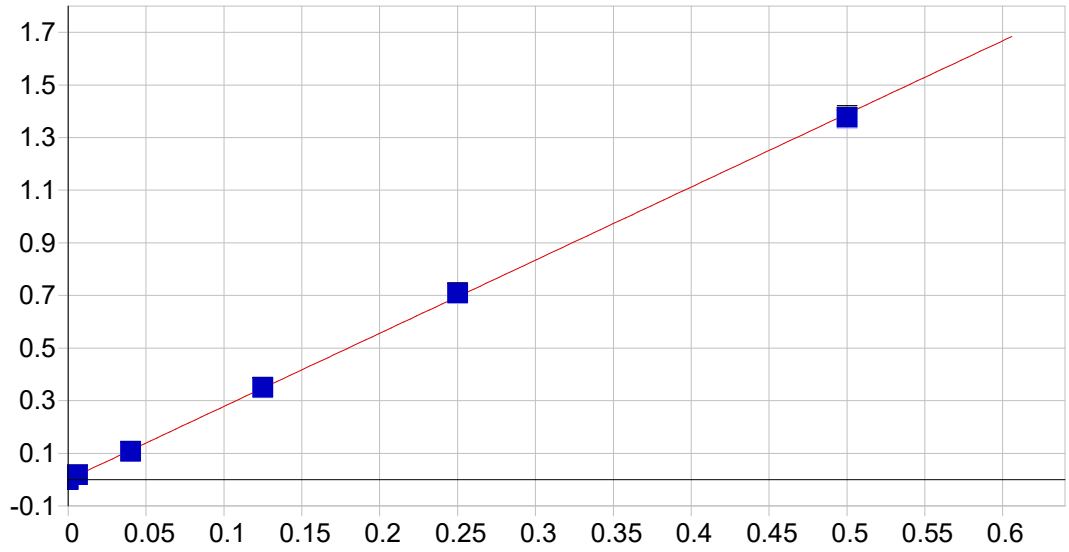
Ba 493.409 { 68}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.041677	Re-Slope:	1.000000
A1 (Gain):	1.792949	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999505	Status:	OK.
Std Error of Est:	0.004183		
Predicted MDL:	0.001133		
Predicted MQL:	0.003775		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.04170	.002	1
S1	.10000	.09326	-.007	-6.74	.20889	.002	1
S3	5.0000	4.9378	-.062	-1.24	8.8949	.030	1
S4	10.000	9.5789	-.421	-4.21	17.216	.065	1
S5	20.000	20.550	.550	2.75	36.887	.188	1
S2	1.6000	1.5401	-.060	-3.75	2.8029	.012	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



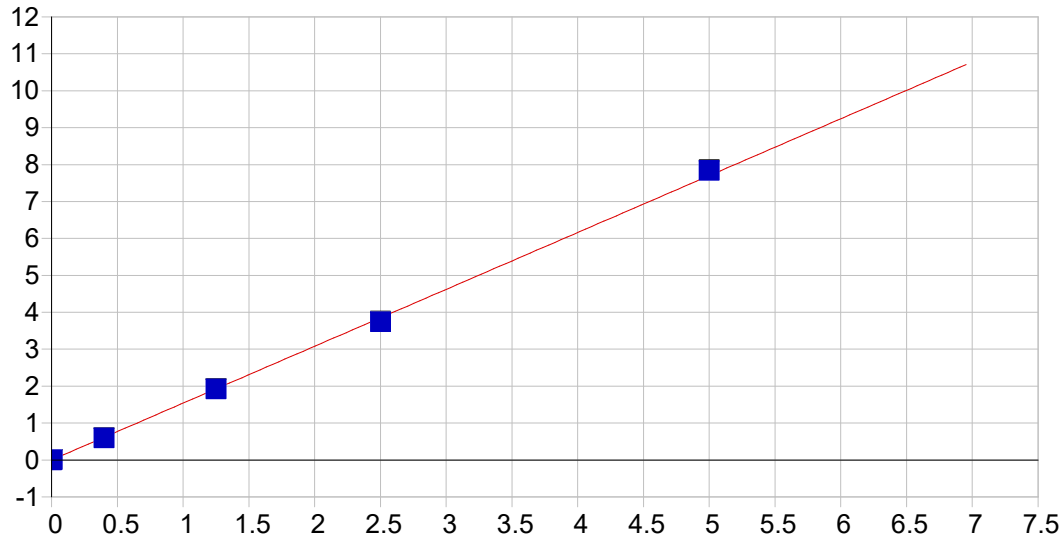
Be 234.861 {144}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000215	Re-Slope:	1.000000
A1 (Gain):	2.779702	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999864	Status:	OK.
Std Error of Est:	0.000131		
Predicted MDL:	0.000070		
Predicted MQL:	0.000234		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00021	.000	1
S1	.00600	.00647	.000	7.89	.01808	.000	1
S3	.12500	.12571	.001	.567	.34809	.002	1
S4	.25000	.25501	.005	2.00	.70596	.001	1
S5	.50000	.49540	-.005	-.919	1.3711	.006	1
S2	.04000	.03840	-.002	-3.99	.10647	.001	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



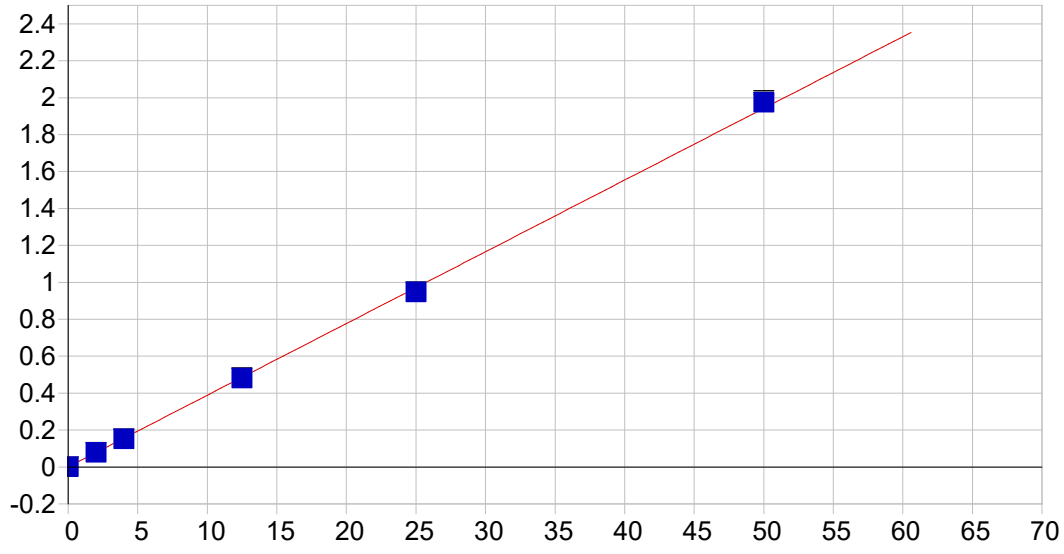
Cd 226.502 {449}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000038	Re-Slope:	1.000000
A1 (Gain):	1.540255	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999776	Status:	OK.
Std Error of Est:	0.000296		
Predicted MDL:	0.000127		
Predicted MQL:	0.000424		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00004	.000	1
S1	.00600	.00627	.000	4.51	.00967	.000	1
S3	1.2500	1.2470	-.003	-.239	1.9224	.006	1
S4	2.5000	2.4273	-.073	-2.91	3.7420	.016	1
S5	5.0000	5.0883	.088	1.77	7.8440	.014	1
S2	.40000	.38715	-.013	-3.21	.59681	.001	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



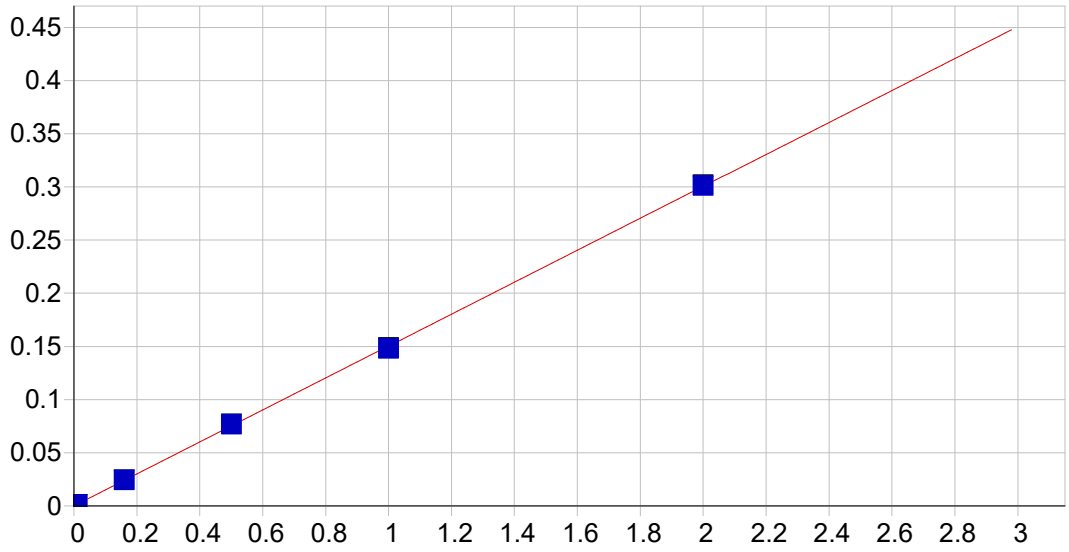
Ca 373.690 { 90}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000326	Re-Slope:	1.000000
A1 (Gain):	0.038836	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999821	Status:	OK.
Std Error of Est:	0.000388		
Predicted MDL:	0.011659		
Predicted MQL:	0.038862		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00007	.000	.000	.00033	.000	1
S2	4.0000	3.8989	-.101	-2.53	.15174	.000	1
S3	12.500	12.392	-.108	-.868	.48156	.001	1
S4	25.000	24.366	-.634	-2.54	.94661	.002	1
S5	50.000	50.828	.828	1.66	1.9743	.009	1
S1	2.0000	2.0157	.016	.785	.07861	.001	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



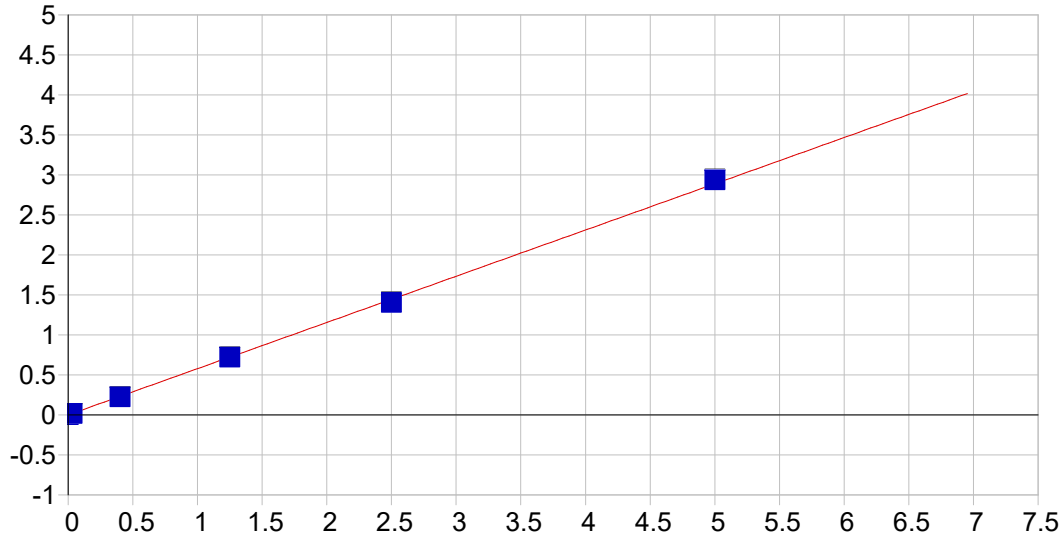
Cr 267.716 {126}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000133	Re-Slope:	1.000000
A1 (Gain):	0.150204	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999929	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.000484		
Predicted MQL:	0.001613		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00013	.000	1
S1	.01000	.00964	-.000	-3.64	.00158	.000	1
S3	.50000	.51101	.011	2.20	.07691	.000	1
S4	1.0000	.98405	-.016	-1.60	.14799	.001	1
S5	2.0000	2.0044	.004	.221	.30129	.001	1
S2	.16000	.16089	.001	.559	.02431	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



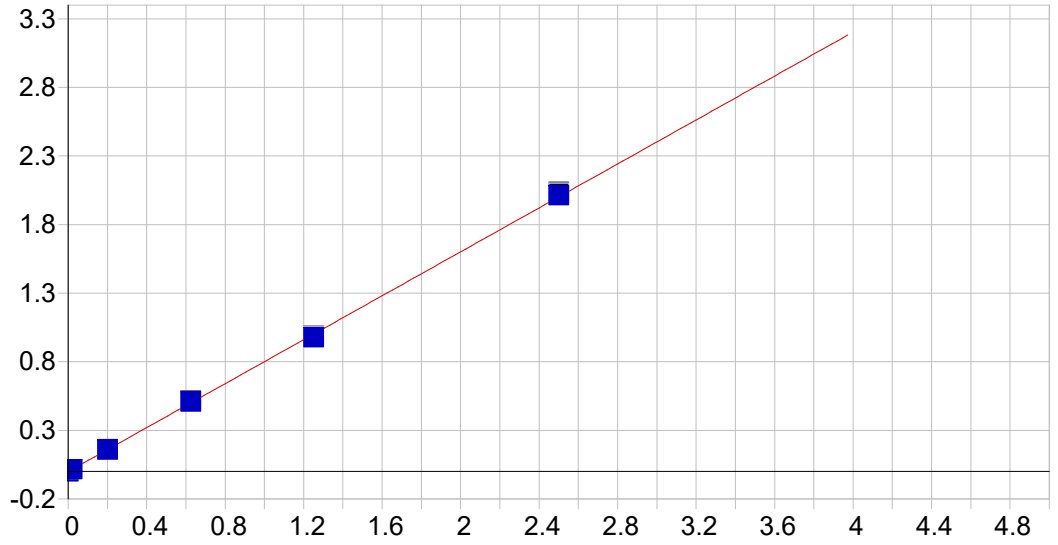
Co 228.616 {448}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000061	Re-Slope:	1.000000
A1 (Gain):	0.577804	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999798	Status:	OK.
Std Error of Est:	0.000236		
Predicted MDL:	0.000365		
Predicted MQL:	0.001217		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00006	.000	1
S1	.03000	.03014	.000	.467	.01728	.000	1
S3	1.2500	1.2480	-.002	-.161	.72226	.001	1
S4	2.5000	2.4306	-.069	-2.78	1.4068	.005	1
S5	5.0000	5.0837	.084	1.67	2.9422	.005	1
S2	.40000	.38760	-.012	-3.10	.22429	.001	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



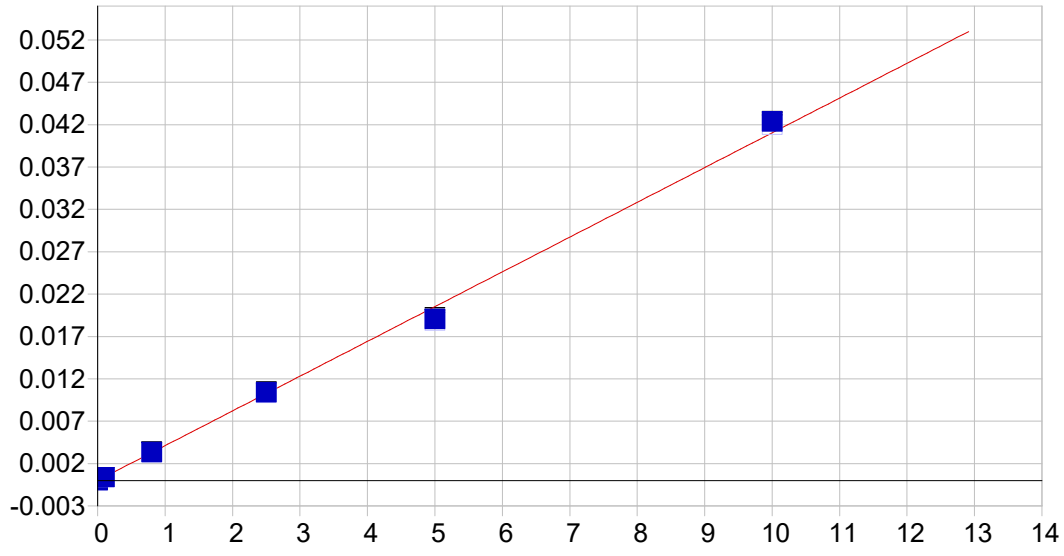
Cu 224.700 {450}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000438	Re-Slope:	1.000000
A1 (Gain):	0.800984	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999860	Status:	OK.
Std Error of Est:	0.000159		
Predicted MDL:	0.000449		
Predicted MQL:	0.001498		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00044	.000	1
S1	.02000	.02229	.002	11.5	.01758	.000	1
S3	.62500	.63713	.012	1.94	.51354	.002	1
S4	1.2500	1.2205	-.029	-2.36	.98447	.003	1
S5	2.5000	2.5163	.016	.653	2.0297	.009	1
S2	.20000	.19874	-.001	-.628	.15992	.001	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



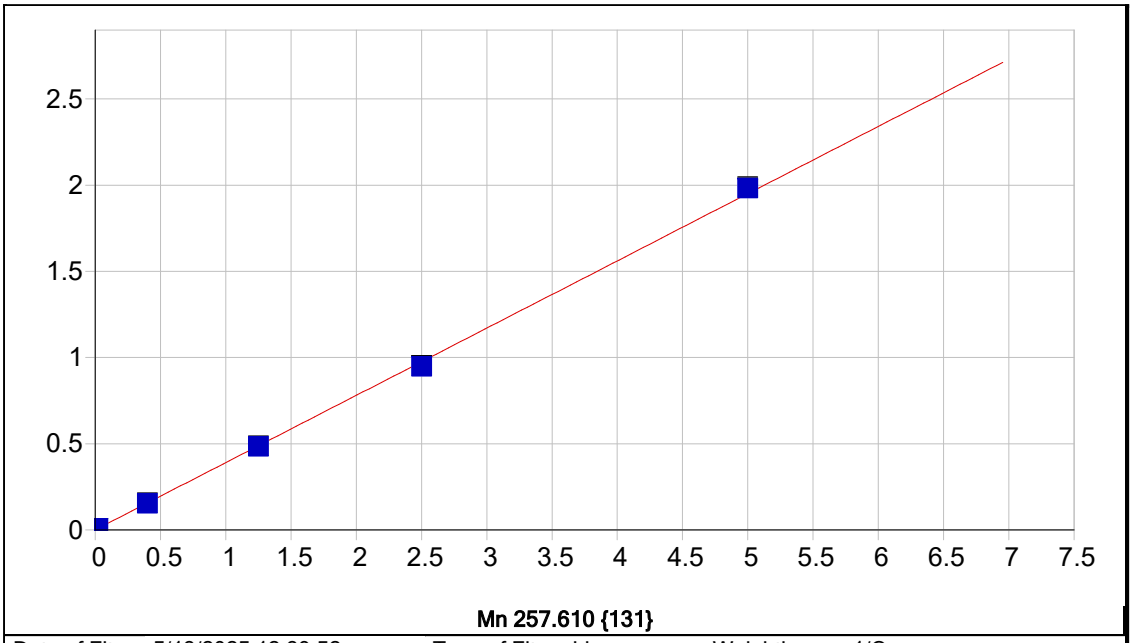
Fe 240.488 {140}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.004103	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998973	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.005885		
Predicted MQL:	0.019615		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00001	.000	1
S1	.10000	.09291	-.007	-7.09	.00038	.000	1
S3	2.5000	2.5342	.034	1.37	.01032	.000	1
S4	5.0000	4.6408	-.359	-7.18	.01887	.000	1
S5	10.000	10.320	.320	3.20	.04200	.000	1
S2	.80000	.81203	.012	1.50	.00331	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



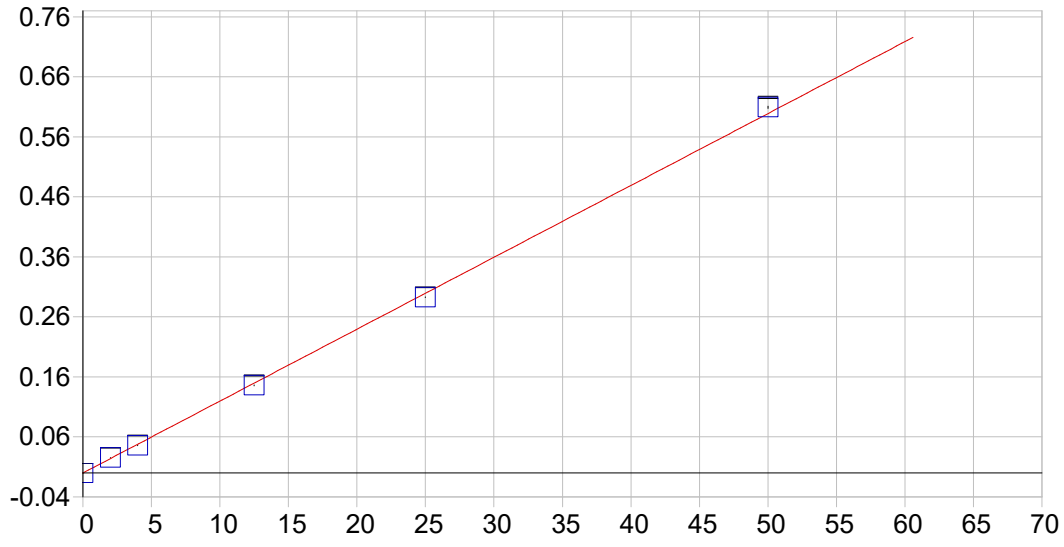
Mn 257.610 {131}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000488	Re-Slope:	1.000000
A1 (Gain):	0.390069	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999820	Status:	OK.
Std Error of Est:	0.000123		
Predicted MDL:	0.000441		
Predicted MQL:	0.001469		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00049	.000	1
S1	.02000	.02021	.000	1.04	.00837	.000	1
S3	1.2500	1.2431	-.007	-.552	.48548	.001	1
S4	2.5000	2.4315	-.069	-2.74	.94913	.005	1
S5	5.0000	5.0808	.081	1.62	1.9827	.007	1
S2	.40000	.39438	-.006	-1.40	.15435	.001	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



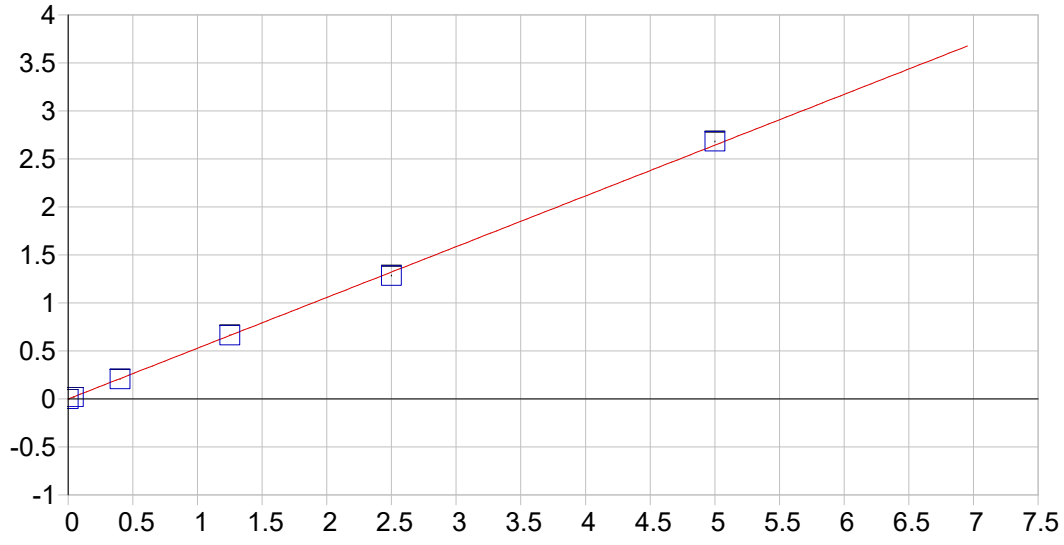
Mg 279.079 {121}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000139	Re-Slope:	1.000000
A1 (Gain):	0.011979	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999723	Status:	OK.
Std Error of Est:	0.000149		
Predicted MDL:	0.016415		
Predicted MQL:	0.054717		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00014	.000	1
S2	4.0000	3.8408	-.159	-3.98	.04587	.000	1
S3	12.500	12.188	-.312	-2.50	.14586	.001	1
S4	25.000	24.449	-.551	-2.20	.29274	.000	1
S5	50.000	50.881	.881	1.76	.60938	.002	1
S1	2.0000	2.1418	.142	7.09	.02552	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



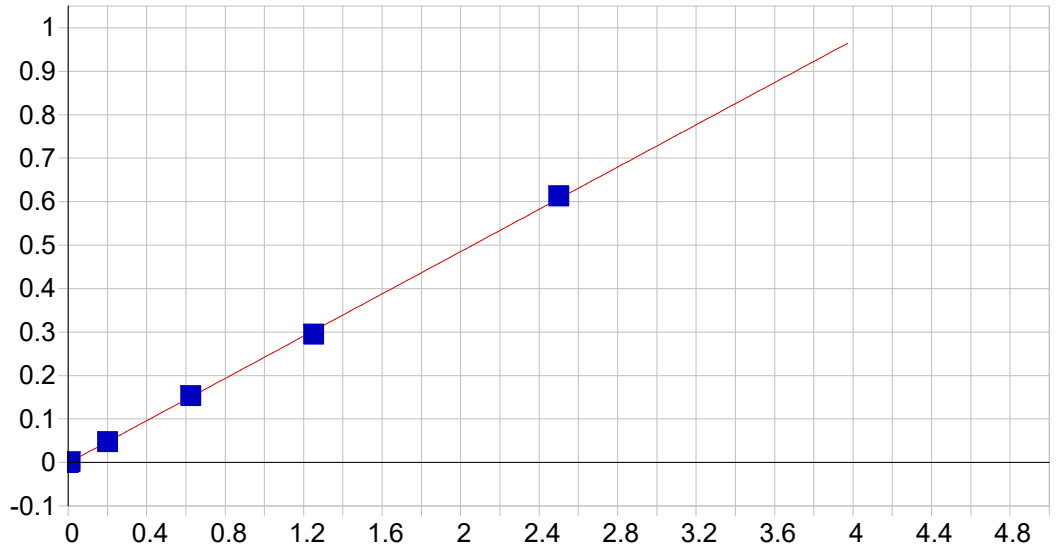
Ni 231.604 {446}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000483	Re-Slope:	1.000000
A1 (Gain):	0.528734	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999811	Status:	OK.
Std Error of Est:	0.000242		
Predicted MDL:	0.000390		
Predicted MQL:	0.001301		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00048	.000	1
S1	.04000	.04000	-.000	-.007	.02066	.000	1
S3	1.2500	1.2565	.007	.524	.66389	.002	1
S4	2.5000	2.4292	-.071	-2.83	1.2839	.005	1
S5	5.0000	5.0754	.075	1.51	2.6830	.005	1
S2	.40000	.38889	-.011	-2.78	.20514	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



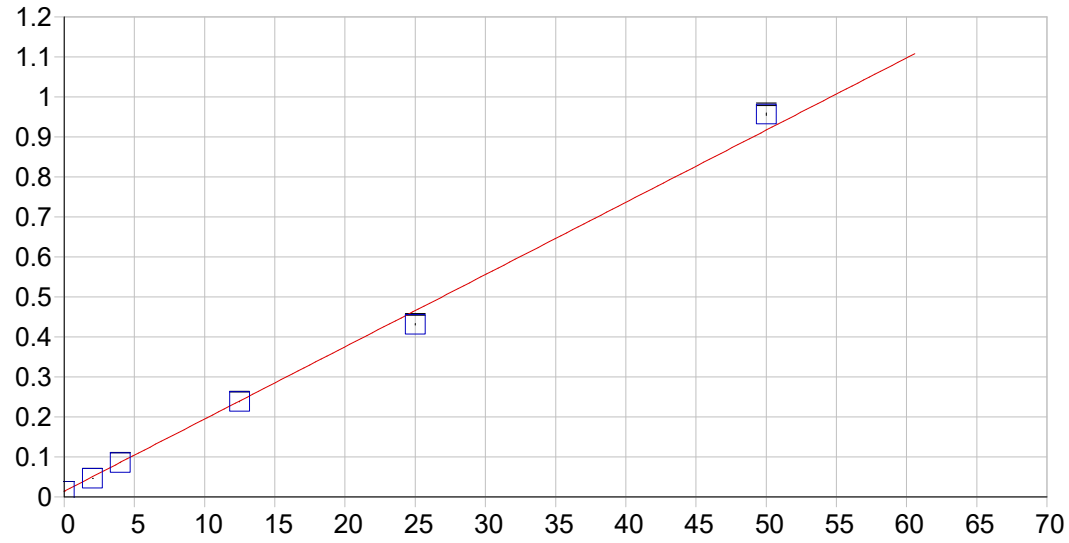
Ag 328.068 {103}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001139	Re-Slope:	1.000000
A1 (Gain):	0.243107	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999865	Status:	OK.
Std Error of Est:	0.000033		
Predicted MDL:	0.000424		
Predicted MQL:	0.001415		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00114	.000	1
S1	.01000	.01023	.000	2.28	.00133	.000	1
S3	.62500	.63413	.009	1.46	.15242	.000	1
S4	1.2500	1.2178	-.032	-2.57	.29372	.000	1
S5	2.5000	2.5247	.025	.989	.61023	.000	1
S2	.20000	.19808	-.002	-.960	.04682	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



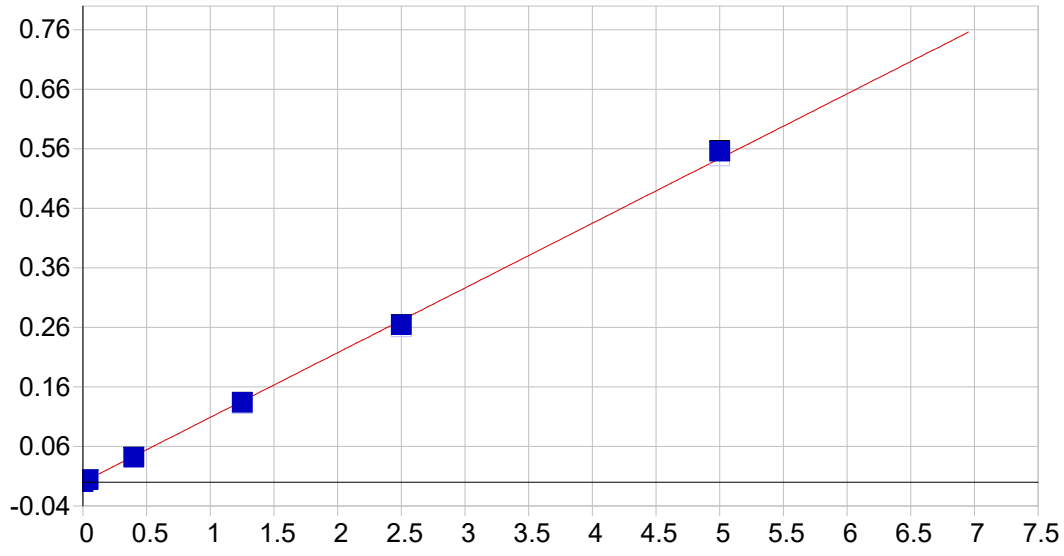
Na 589.592 { 57}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.014213	Re-Slope:	1.000000
A1 (Gain):	0.018054	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998595	Status:	OK.
Std Error of Est:	0.000507		
Predicted MDL:	0.011653		
Predicted MQL:	0.038843		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00031	.000	.000	.01422	.000	1
S2	4.0000	3.9623	-.038	-.943	.08575	.000	1
S3	12.500	12.423	-.077	-.615	.23850	.001	1
S4	25.000	23.118	-1.88	-7.53	.43157	.002	1
S5	50.000	52.210	2.21	4.42	.95681	.003	1
S1	2.0000	1.7866	-.213	-10.7	.04647	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



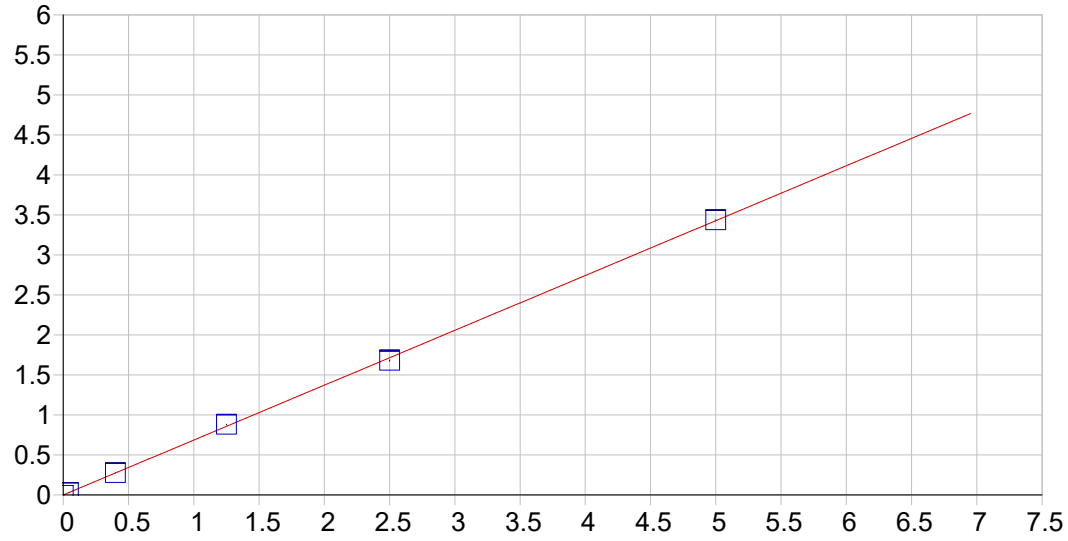
V 292.402 {115}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000070	Re-Slope:	1.000000
A1 (Gain):	0.108744	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999694	Status:	OK.
Std Error of Est:	0.000062		
Predicted MDL:	0.001906		
Predicted MQL:	0.006353		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00007	.000	1
S1	.04000	.03867	-.001	-3.32	.00411	.000	1
S3	1.2500	1.2289	-.021	-1.69	.13172	.000	1
S4	2.5000	2.4305	-.070	-2.78	.26041	.000	1
S5	5.0000	5.1092	.109	2.18	.54774	.002	1
S2	.40000	.38270	-.017	-4.33	.04105	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



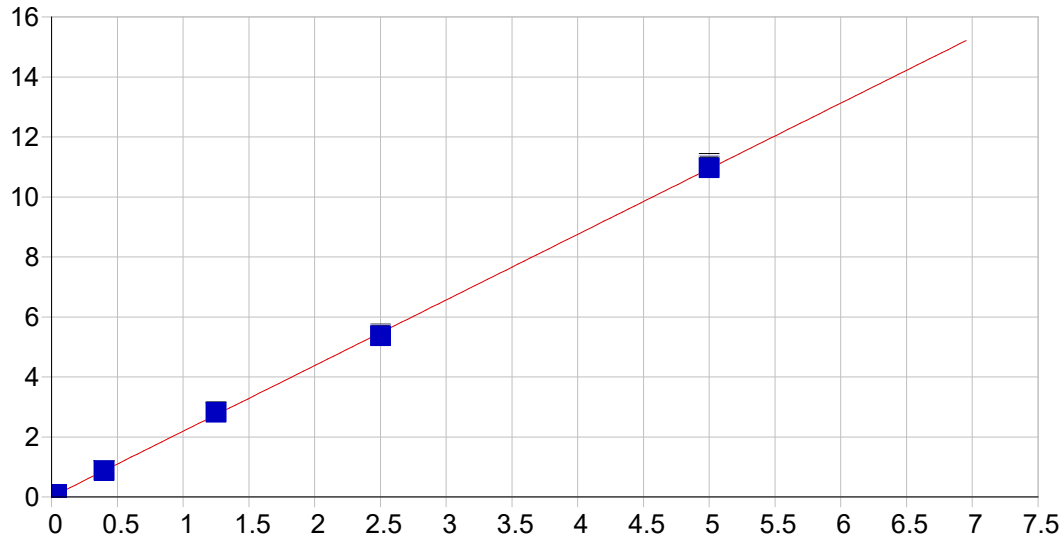
Zn 206.200 {464}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000243	Re-Slope:	1.000000
A1 (Gain):	0.685537	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999886	Status:	OK.
Std Error of Est:	0.000243		
Predicted MDL:	0.000274		
Predicted MQL:	0.000914		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00024	.000	1
S1	.04000	.04253	.003	6.33	.02940	.000	1
S3	1.2500	1.2849	.035	2.79	.88106	.005	1
S4	2.5000	2.4517	-.048	-1.93	1.6810	.009	1
S5	5.0000	5.0108	.011	.215	3.4353	.003	1
S2	.40000	.40013	.000	.033	.27455	.001	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



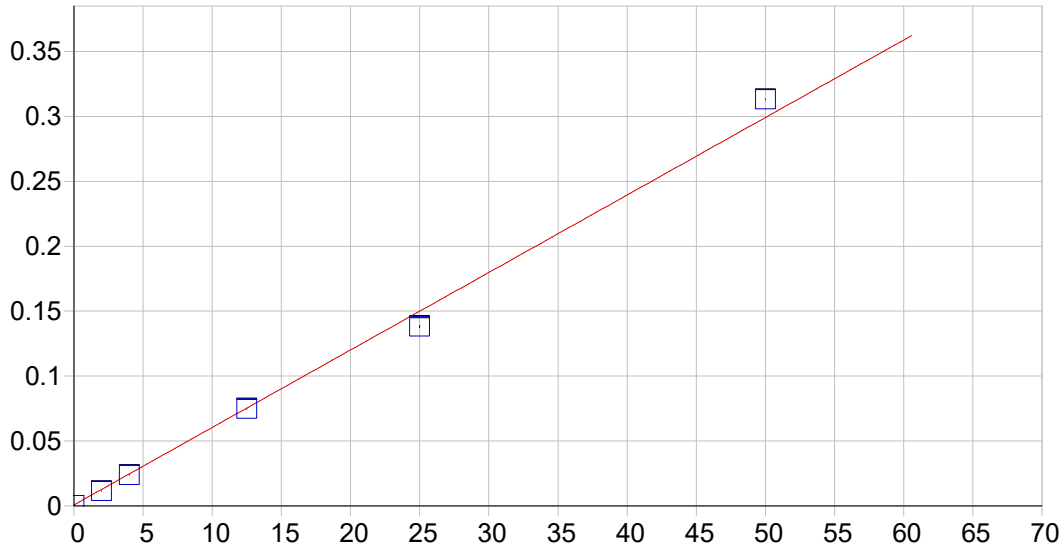
Zn 213.856 {158}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002240	Re-Slope:	1.000000
A1 (Gain):	2.187467	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999891	Status:	OK.
Std Error of Est:	0.000764		
Predicted MDL:	0.000416		
Predicted MQL:	0.001386		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00223	.001	1
S1	.04000	.04284	.003	7.10	.09657	.001	1
S3	1.2500	1.2841	.034	2.73	2.8303	.007	1
S4	2.5000	2.4539	-.046	-1.85	5.4080	.024	1
S5	5.0000	5.0121	.012	.241	11.042	.068	1
S2	.40000	.39710	-.003	-.726	.87696	.003	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



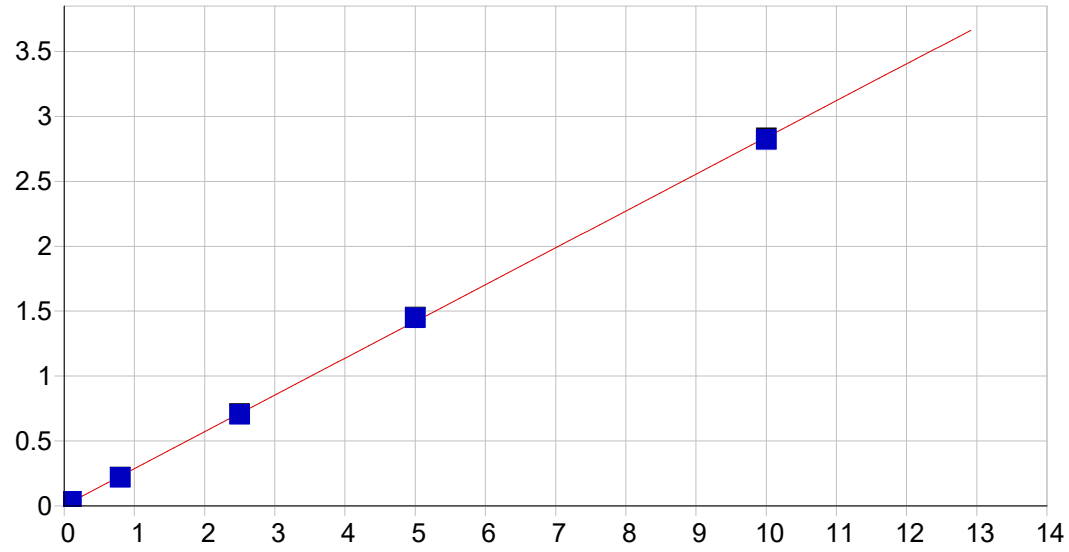
K 766.490 { 44}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000768	Re-Slope:	1.000000
A1 (Gain):	0.005968	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998434	Status:	OK.
Std Error of Est:	0.000177		
Predicted MDL:	0.037319		
Predicted MQL:	0.124397		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00033	.000	.000	.00077	.000	1
S2	4.0000	3.8765	-.124	-3.09	.02390	.000	1
S3	12.500	12.418	-.082	-.659	.07487	.001	1
S4	25.000	23.022	-1.98	-7.91	.13815	.001	1
S5	50.000	52.380	2.38	4.76	.31335	.000	1
S1	2.0000	1.8039	-.196	-9.81	.01153	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



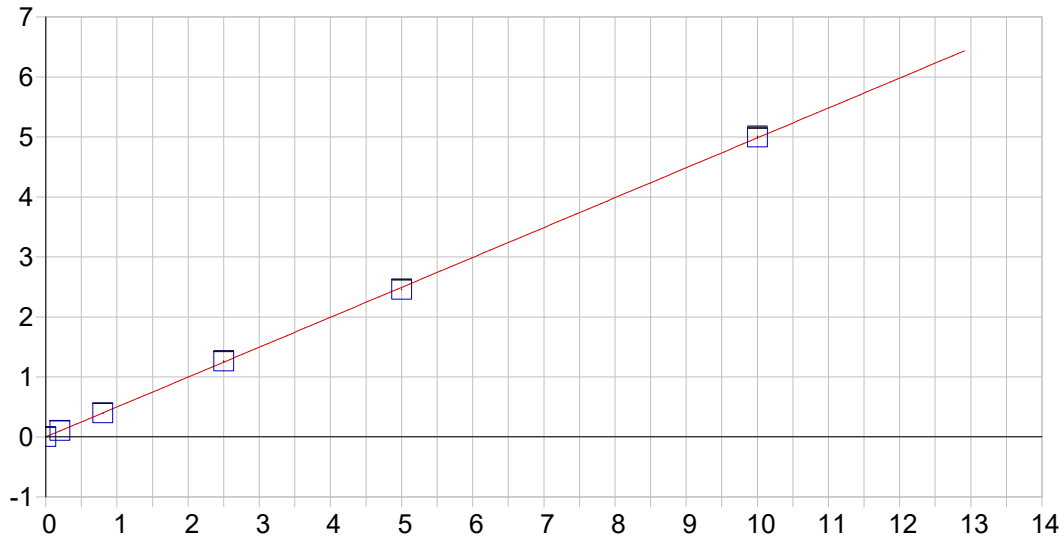
B 249.678 {135}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003568	Re-Slope:	1.000000
A1 (Gain):	0.283417	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999831	Status:	OK.
Std Error of Est:	0.000273		
Predicted MDL:	0.000885		
Predicted MQL:	0.002949		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00357	.000	1
S1	.10000	.11488	.015	14.9	.03601	.000	1
S3	2.5000	2.4789	-.021	-.844	.70491	.003	1
S4	5.0000	5.0987	.099	1.97	1.4462	.006	1
S5	10.000	9.9427	-.057	-.573	2.8166	.013	1
S2	.80000	.76486	-.035	-4.39	.21995	.001	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



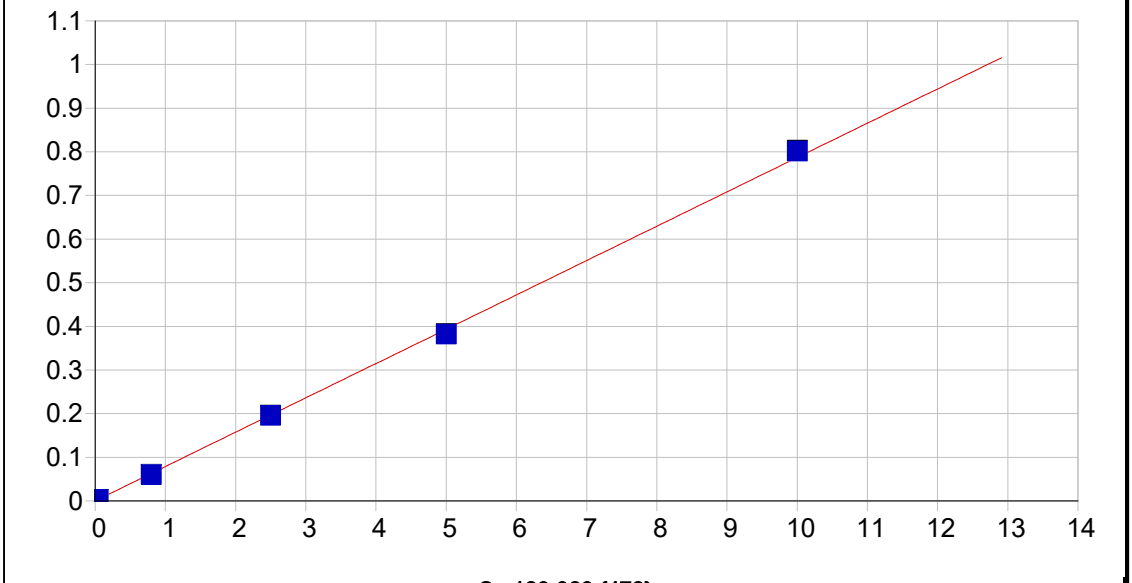
Mo 202.030 {467}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000136	Re-Slope:	1.000000
A1 (Gain):	0.498355	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999938	Status:	OK.
Std Error of Est:	0.000414		
Predicted MDL:	0.000392		
Predicted MQL:	0.001308		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00013	.000	1
S1	.20000	.21282	.013	6.41	.10619	.001	1
S3	2.5000	2.5337	.034	1.35	1.2628	.007	1
S4	5.0000	4.9311	-.069	-1.38	2.4576	.007	1
S5	10.000	10.026	.026	.259	4.9966	.018	1
S2	.80000	.79641	-.004	-.448	.39703	.001	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



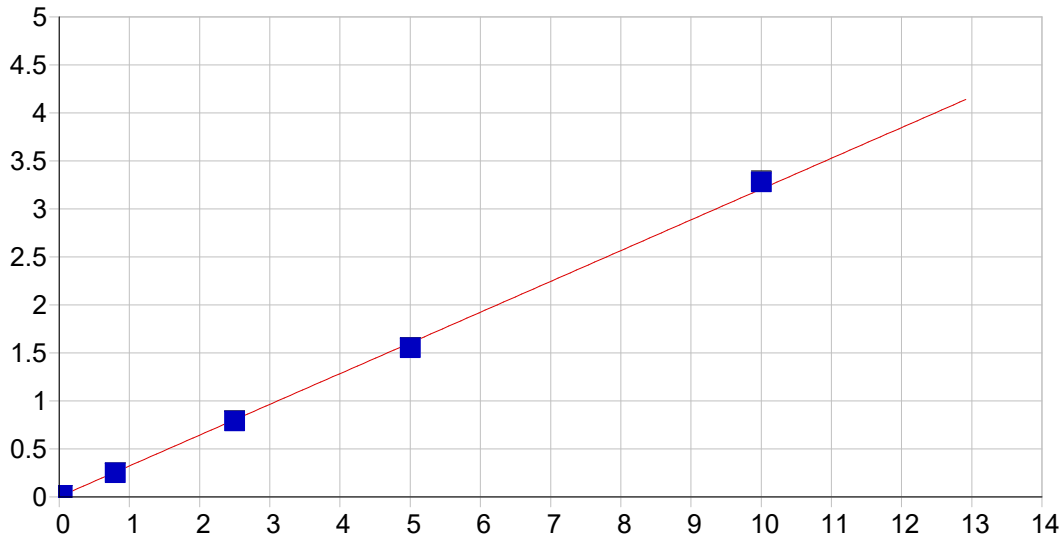
Sn 189.989 {478}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000118	Re-Slope:	1.000000
A1 (Gain):	0.078667	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999749	Status:	OK.
Std Error of Est:	0.000058		
Predicted MDL:	0.001208		
Predicted MQL:	0.004026		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00012	.000	1
S1	.04000	.04019	.000	.468	.00328	.000	1
S3	2.5000	2.4854	-.015	-.585	.19543	.001	1
S4	5.0000	4.8581	-.142	-2.84	.38189	.001	1
S5	10.000	10.190	.190	1.90	.80097	.002	1
S2	.80000	.76587	-.034	-4.27	.06030	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



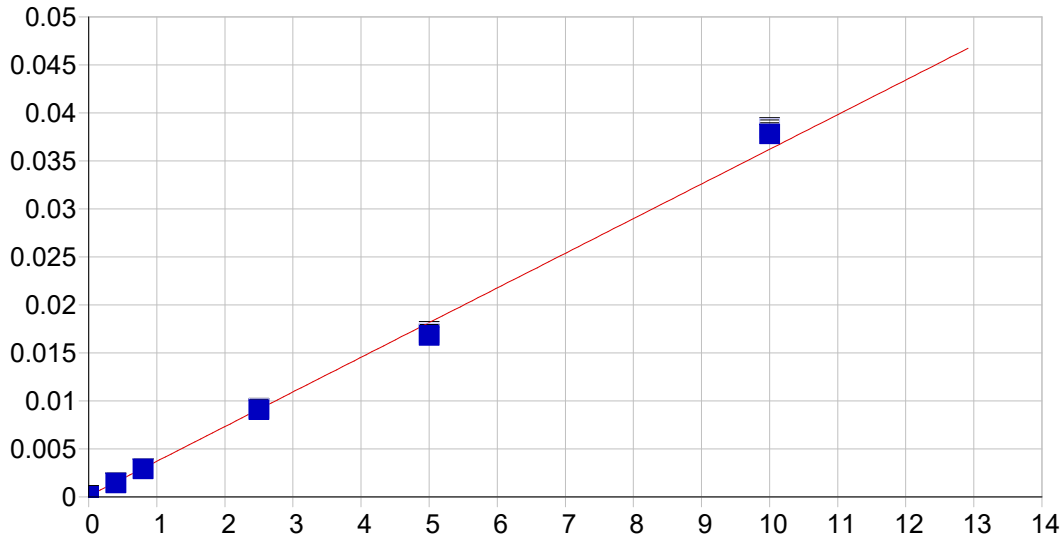
Ti 336.121 {100}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002165	Re-Slope:	1.000000
A1 (Gain):	0.320416	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999670	Status:	OK.
Std Error of Est:	0.000273		
Predicted MDL:	0.000930		
Predicted MQL:	0.003100		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00217	.000	1
S1	.04000	.04042	.000	1.06	.01511	.000	1
S3	2.5000	2.4577	-.042	-1.69	.78935	.003	1
S4	5.0000	4.8370	-.163	-3.26	1.5514	.005	1
S5	10.000	10.230	.230	2.30	3.2788	.010	1
S2	.80000	.77523	-.025	-3.10	.25047	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



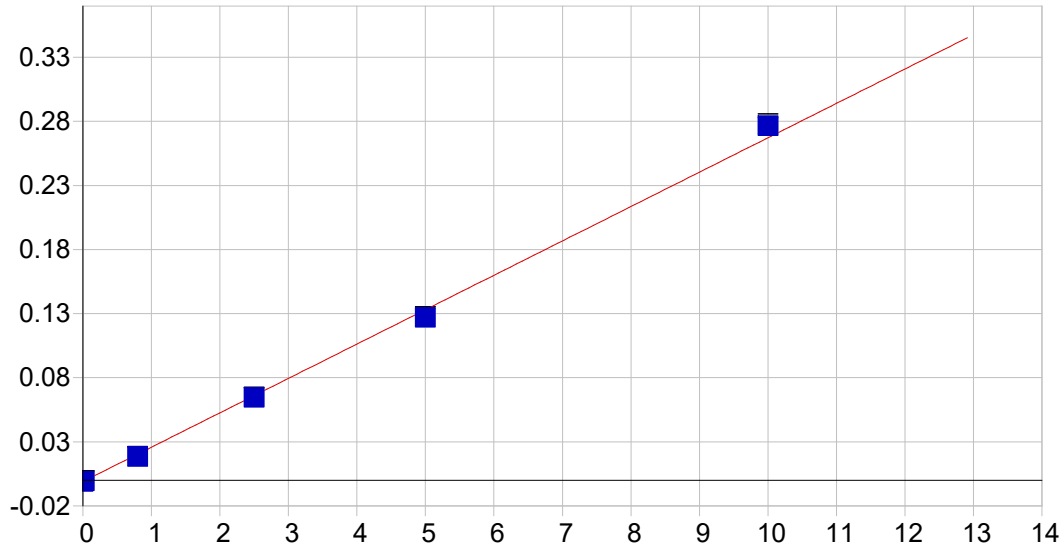
Si 288.158 {117}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000101	Re-Slope:	1.000000
A1 (Gain):	0.003611	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998678	Status:	OK.
Std Error of Est:	0.000020		
Predicted MDL:	0.011617		
Predicted MQL:	0.038724		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	.00010	.000	1
S1	.40000	.37289	-.027	-6.78	.00145	.000	1
S3	2.5000	2.4836	-.016	-.656	.00920	.000	1
S4	5.0000	4.6236	-.376	-7.53	.01707	.000	1
S5	10.000	10.446	.446	4.46	.03836	.000	1
S2	.80000	.77400	-.026	-3.25	.00294	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



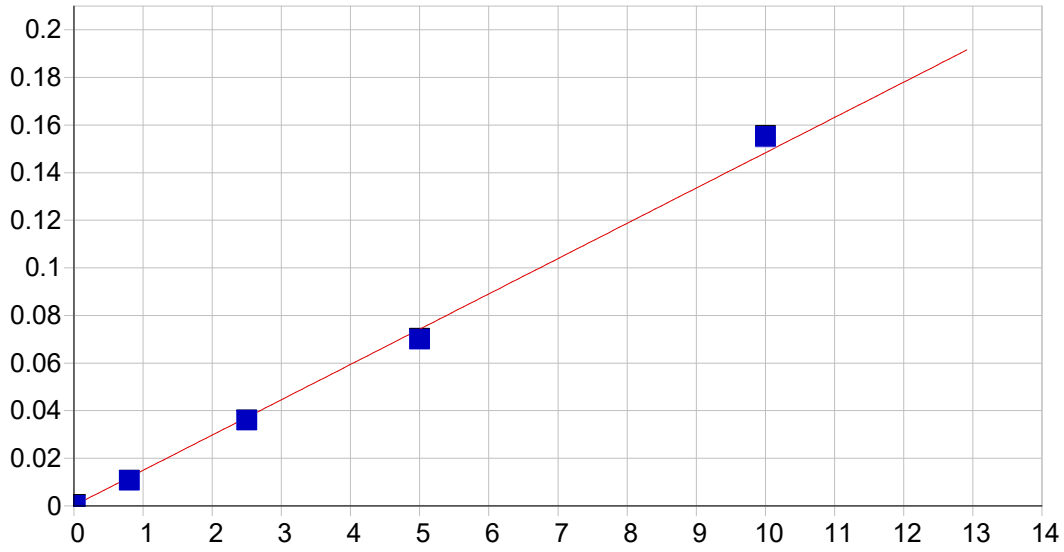
P 177.495 {490}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001028	Re-Slope:	1.000000
A1 (Gain):	0.026826	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999173	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.003860		
Predicted MQL:	0.012867		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00103	.000	1
S1	.02000	.02094	.001	4.68	-.00047	.000	1
S3	2.5000	2.4482	-.052	-2.07	.06463	.000	1
S4	5.0000	4.7721	-.228	-4.56	.12697	.001	1
S5	10.000	10.351	.351	3.51	.27660	.002	1
S2	.80000	.72783	-.072	-9.02	.01849	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



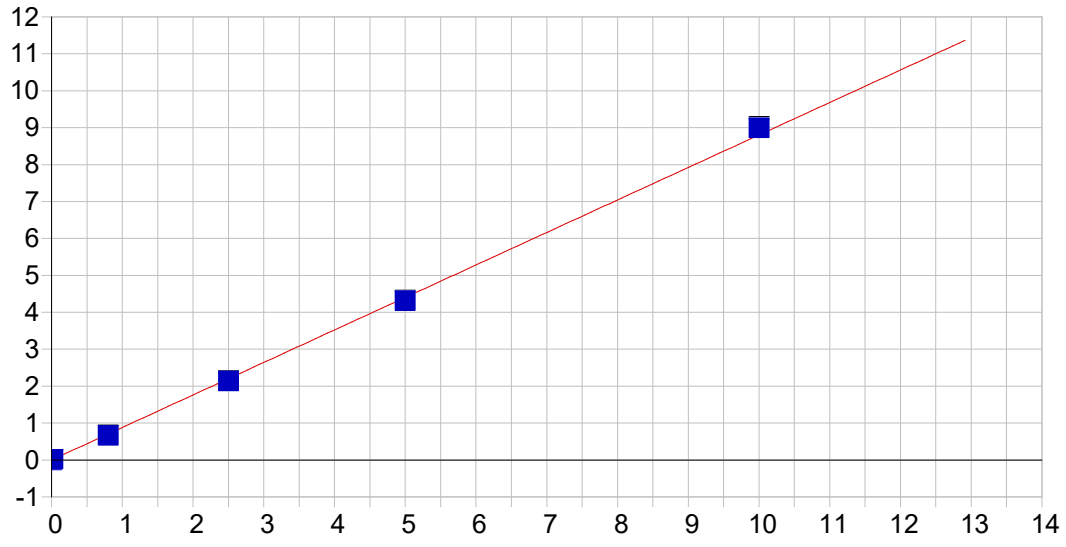
S 182.034 {485}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000140	Re-Slope:	1.000000
A1 (Gain):	0.014823	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998648	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.005640		
Predicted MQL:	0.018801		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00014	.000	1
S1	.02000	.01993	-.000	-.353	.00042	.000	1
S3	2.5000	2.4178	-.082	-3.29	.03588	.000	1
S4	5.0000	4.7153	-.285	-5.69	.06984	.000	1
S5	10.000	10.455	.455	4.55	.15474	.001	1
S2	.80000	.71171	-.088	-11.0	.01066	.000	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



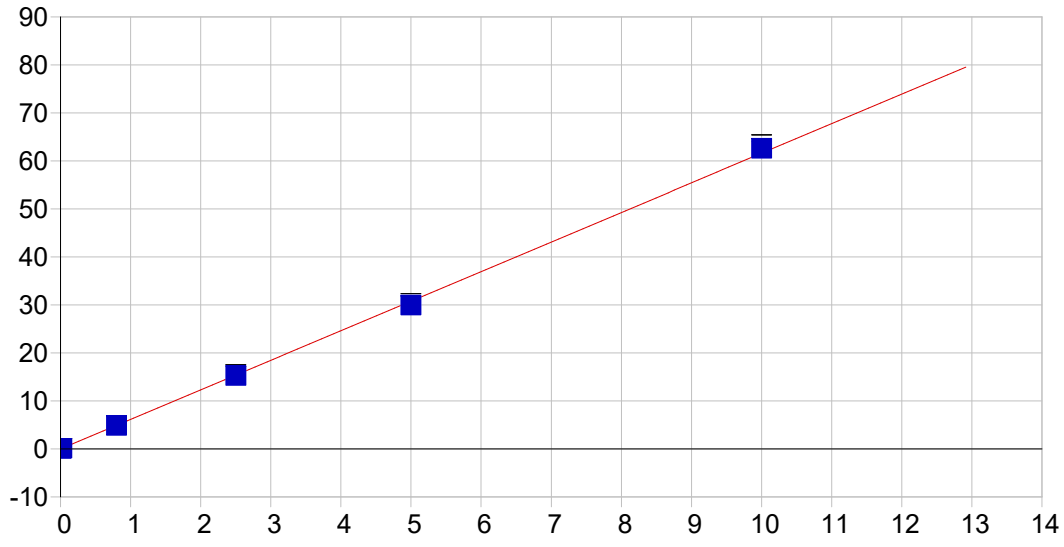
Li 670.784 { 50}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000890	Re-Slope:	1.000000
A1 (Gain):	0.880071	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999681	Status:	OK.
Std Error of Est:	0.000521		
Predicted MDL:	0.001247		
Predicted MQL:	0.004156		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00089	.001	1
S5	10.000	10.222	.222	2.22	9.0014	.027	1
S4	5.0000	4.8966	-.103	-2.07	4.3124	.014	1
S3	2.5000	2.4233	-.077	-3.07	2.1347	.009	1
S1	.02000	.02063	.001	3.16	.01933	.001	1
S2	.80000	.75745	-.043	-5.32	.66786	.002	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



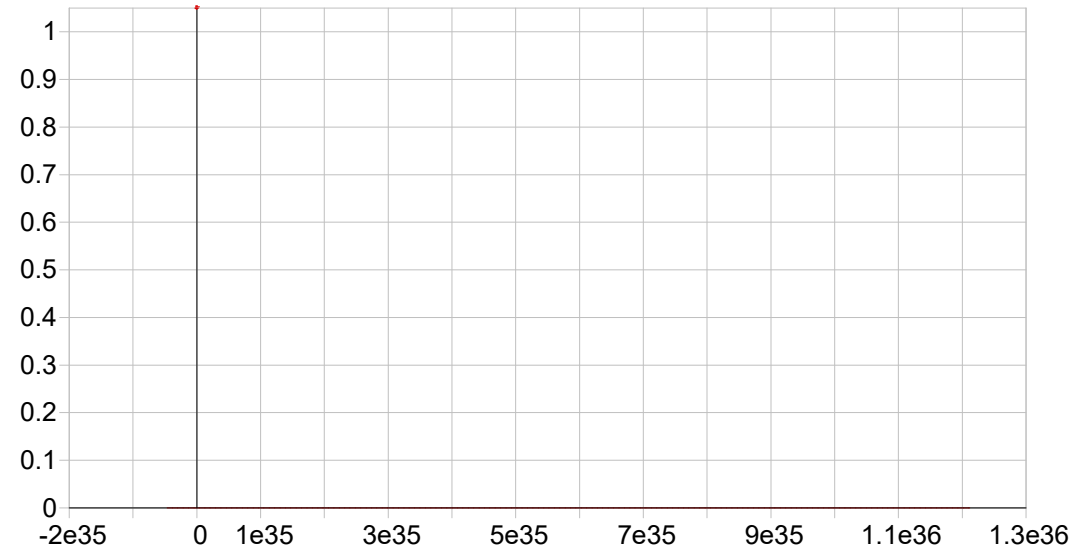
Sr 407.771 { 83}

Date of Fit:	5/13/2025 12:39:52	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000006	Re-Slope:	1.000000
A1 (Gain):	6.157659	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999810	Status:	OK.
Std Error of Est:	0.002816		
Predicted MDL:	0.000095		
Predicted MQL:	0.000316		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00000	.000	1
S1	.02000	.01972	-.000	-1.38	.12204	.001	1
S3	2.5000	2.4817	-.018	-.730	15.296	.195	1
S4	5.0000	4.8639	-.136	-2.72	29.980	.291	1
S5	10.000	10.169	.169	1.69	62.678	.701	1
S2	.80000	.78531	-.015	-1.84	4.8404	.016	1

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

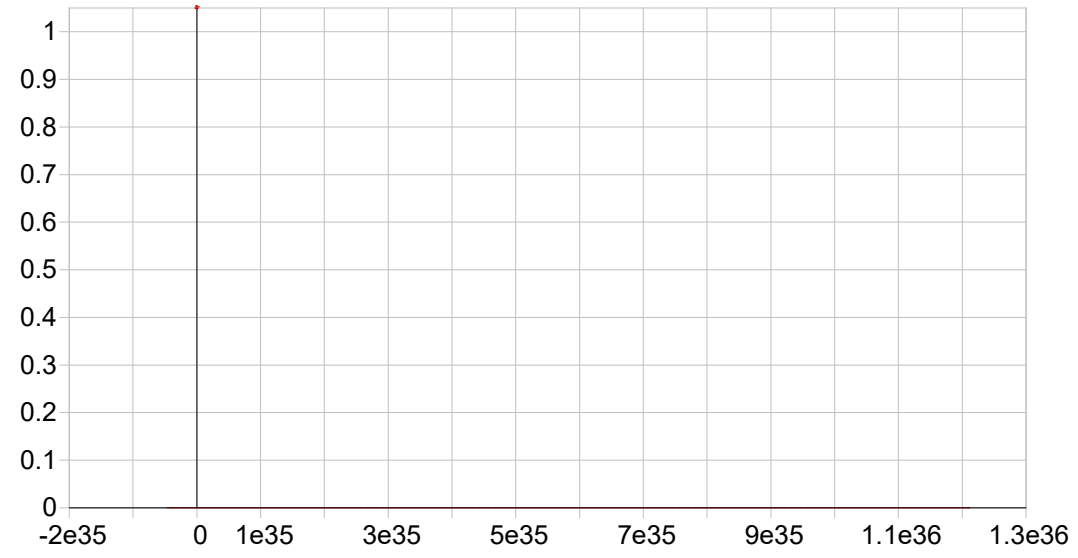


Y 224.306 {450}*

Date of Fit:	5/13/2025 12:39:52	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}*

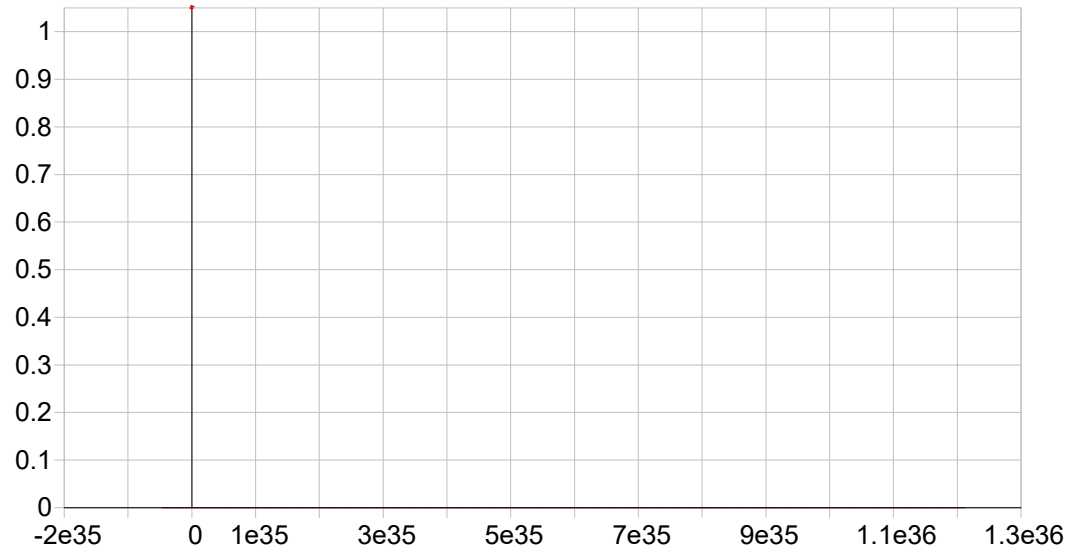
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

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



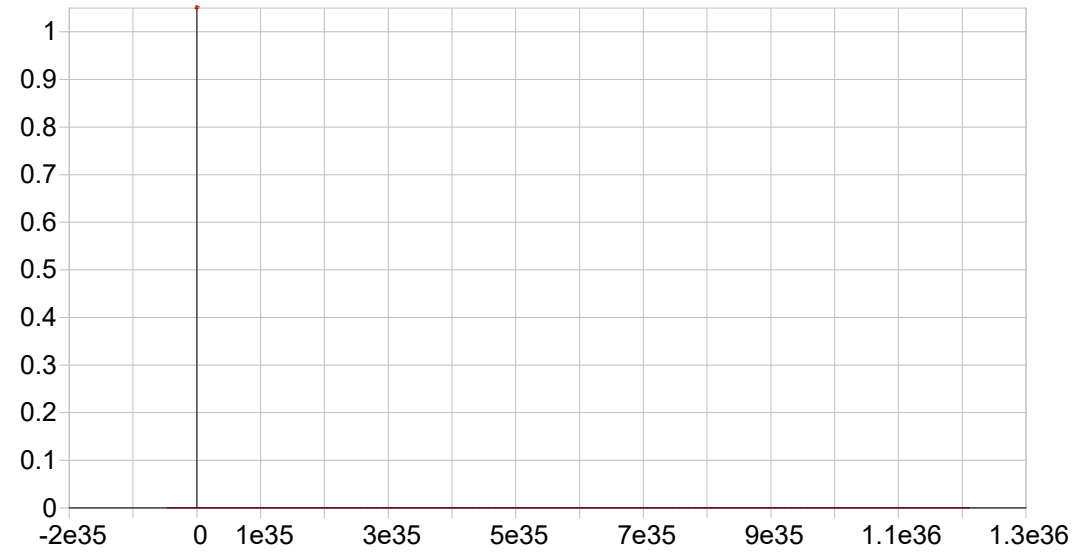
Y 371.030 { 91}*

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

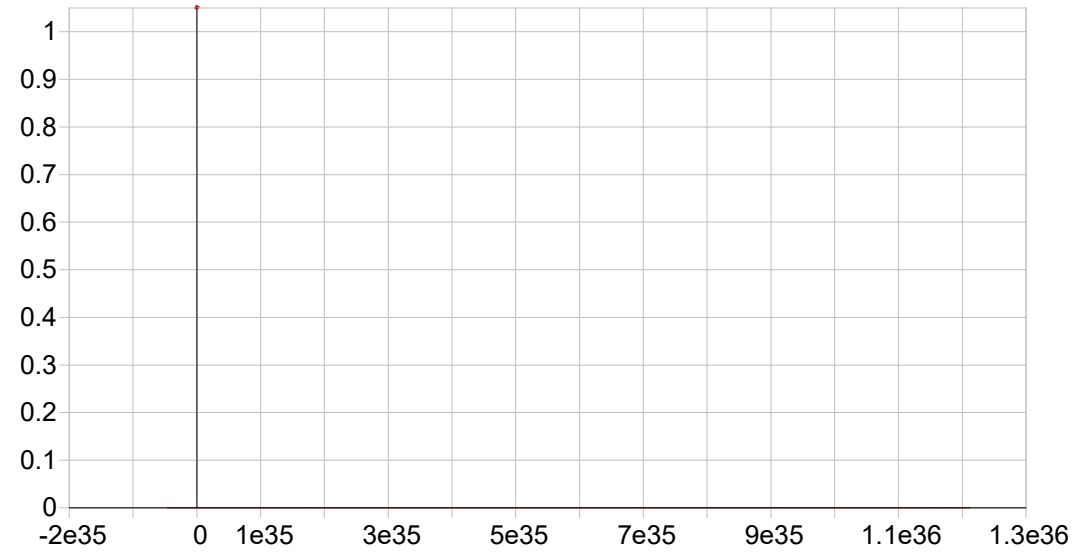
Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756



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:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

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:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S0 Acquired: 5/13/2025 12:07:33 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	-.00008	-.00009	-.00014	.00020	.00033	.00021	.04170	.00021
Stddev	.00006	.00012	.00053	.00017	.00019	.00048	.00157	.00022
%RSD	74.081	130.98	381.19	84.915	57.831	232.53	3.7616	104.13
#1	-.00003	-.00017	.00043	.00039	.00042	-.00021	.04320	.00009
#2	-.00015	-.00014	-.00022	.00017	.00011	.00073	.04183	.00008
#3	-.00007	.00004	-.00062	.00005	.00045	.00010	.04007	.00047

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00004	.00033	.00013	-.00006	-.00044	.00001	.00049	-.00014
Stddev	.00014	.00038	.00005	.00009	.00031	.00002	.00008	.00022
%RSD	367.05	114.76	36.692	142.76	69.942	387.54	15.390	157.00
#1	.00000	-.00007	.00008	.00004	-.00011	-.00001	.00041	.00007
#2	.00008	.00039	.00015	-.00013	-.00049	-.00001	.00056	-.00011
#3	-.00019	.00067	.00017	-.00009	-.00072	.00003	.00050	-.00037

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00048	-.00114	.01422	.00007	.00223	.00077	.00357	.00013
Stddev	.00019	.00006	.00023	.00020	.00072	.00008	.00015	.00015
%RSD	39.764	5.3210	1.6078	282.16	32.319	10.014	4.1205	117.36
#1	-.00067	-.00120	.01441	-.00016	.00252	.00085	.00357	.00029
#2	-.00050	-.00114	.01397	.00017	.00277	.00070	.00371	.00010
#3	-.00028	-.00108	.01427	.00019	.00141	.00077	.00342	-.00001

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00012	.00217	.00010	-.00103	.00014	.00089	.00000
Stddev	.00004	.00013	.00002	.00005	.00006	.00092	.00018
%RSD	37.373	5.8602	20.205	4.4045	45.473	103.73	310190.
#1	.00009	.00229	.00010	-.00104	.00020	.00174	.00020
#2	.00009	.00204	.00012	-.00098	.00015	-.00009	-.00009
#3	.00017	.00217	.00008	-.00107	.00007	.00103	-.00011

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S0 Acquired: 5/13/2025 12:07:33 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	2802.8	66075.	12979.	1842.3	4384.9
Stddev	14.4	419.	24.	4.9	21.6
%RSD	.51490	.63430	.18219	.26452	.49261
#1	2819.5	65836.	13006.	1840.3	4409.6
#2	2794.2	66559.	12963.	1847.8	4375.8
#3	2794.8	65831.	12968.	1838.7	4369.3

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S1 Acquired: 5/13/2025 12:11:58 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	.00064	.00210	.00165	.00115	.00595	.01074	.20889	.01808
Stddev	.00008	.00014	.00035	.00010	.00020	.00064	.00242	.00027
%RSD	13.030	6.6940	21.404	8.2768	3.2971	5.9844	1.1589	1.4715
#1	.00055	.00198	.00153	.00118	.00604	.01145	.20635	.01839
#2	.00070	.00225	.00137	.00123	.00572	.01059	.21118	.01794
#3	.00068	.00207	.00205	.00105	.00608	.01019	.20913	.01792

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00967	.07861	.00158	.01728	.01758	.00038	.00837	.02552
Stddev	.00006	.00053	.00004	.00007	.00045	.00003	.00009	.00026
%RSD	.64538	.66806	2.7282	.39505	2.5732	7.0339	1.1065	1.0228
#1	.00970	.07803	.00154	.01734	.01723	.00035	.00839	.02523
#2	.00971	.07905	.00163	.01730	.01741	.00039	.00846	.02574
#3	.00960	.07874	.00158	.01720	.01809	.00040	.00827	.02559

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02066	.00133	.04647	.00411	.09657	.01153	.03601	.10619
Stddev	.00004	.00013	.00020	.00017	.00096	.00008	.00019	.00059
%RSD	.18879	9.4945	.42747	4.1091	.99481	.65178	.53046	.55768
#1	.02069	.00140	.04668	.00408	.09613	.01161	.03608	.10555
#2	.02068	.00141	.04629	.00429	.09767	.01154	.03580	.10672
#3	.02062	.00118	.04643	.00396	.09590	.01146	.03616	.10631

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00328	.01511	.00145	-.00047	.00042	.01933	.12204
Stddev	.00010	.00025	.00001	.00007	.00005	.00092	.00067
%RSD	3.0328	1.6467	.95583	14.854	12.853	4.7350	.54961
#1	.00316	.01501	.00146	-.00055	.00047	.01830	.12146
#2	.00333	.01539	.00144	-.00043	.00043	.01964	.12188
#3	.00334	.01492	.00145	-.00042	.00036	.02005	.12277

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S1 Acquired: 5/13/2025 12:11:58 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	2798.6	67070.	12094.	1860.2	4380.3
Stddev	5.8	283.	40.	7.7	.4
%RSD	.20692	.42217	.32664	.41142	.00995
#1	2803.1	66825.	12134.	1860.1	4380.4
#2	2800.6	67005.	12055.	1852.6	4380.7
#3	2792.1	67380.	12092.	1867.9	4379.8

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S2 Acquired: 5/13/2025 12:16:22 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	.02902	.04247	.12610	.03213	.08308	.14534	2.8029	.10647
Stddev	.00005	.00027	.00044	.00007	.00008	.00038	.0123	.00058
%RSD	.17230	.64678	.34845	.22299	.09817	.26397	.43840	.54597
#1	.02896	.04272	.12573	.03209	.08299	.14503	2.8018	.10693
#2	.02906	.04251	.12659	.03208	.08314	.14522	2.8157	.10582
#3	.02903	.04218	.12600	.03221	.08310	.14577	2.7912	.10666

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.59681	.15174	.02431	.22429	.15992	.00331	.15435	.04587
Stddev	.00127	.00038	.00005	.00103	.00080	.00003	.00090	.00033
%RSD	.21257	.25358	.21829	.45719	.49747	.84547	.58075	.71686
#1	.59535	.15136	.02434	.22310	.15918	.00330	.15434	.04603
#2	.59766	.15174	.02425	.22480	.15983	.00334	.15526	.04549
#3	.59742	.15213	.02434	.22495	.16076	.00329	.15347	.04609

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.20514	.04682	.08575	.04105	.87696	.02390	.21995	.39703
Stddev	.00046	.00015	.00037	.00003	.00255	.00019	.00052	.00085
%RSD	.22391	.31942	.43488	.06969	.29027	.78174	.23593	.21387
#1	.20462	.04684	.08538	.04108	.87907	.02390	.22054	.39638
#2	.20529	.04696	.08575	.04102	.87414	.02409	.21956	.39673
#3	.20550	.04667	.08612	.04105	.87767	.02372	.21976	.39799

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.06030	.25047	.00294	.01849	.01066	.66786	4.8404
Stddev	.00028	.00037	.00002	.00017	.00006	.00248	.0158
%RSD	.45950	.14923	.84010	.90895	.56645	.37202	.32533
#1	.06013	.25029	.00294	.01830	.01065	.66886	4.8420
#2	.06016	.25090	.00297	.01856	.01060	.66968	4.8553
#3	.06062	.25021	.00292	.01862	.01072	.66503	4.8239

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S2 Acquired: 5/13/2025 12:16:22 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	2802.8	66100.	13147.	1847.5	4335.8
Stddev	10.5	41.	18.	7.8	14.8
%RSD	.37482	.06218	.13399	.42050	.34246
#1	2811.1	66075.	13127.	1839.2	4346.3
#2	2806.3	66077.	13161.	1848.5	4342.3
#3	2791.0	66147.	13152.	1854.7	4318.8

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S3 Acquired: 5/13/2025 12:20:32 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	.09495	.13693	.40683	.10568	.26987	.46578	8.8949	.34809
Stddev	.00057	.00134	.00156	.00081	.00117	.00101	.0304	.00211
%RSD	.60166	.97925	.38251	.77087	.43537	.21690	.34203	.60749
#1	.09481	.13555	.40664	.10547	.26934	.46620	8.9124	.34640
#2	.09447	.13702	.40539	.10499	.26906	.46650	8.9125	.35046
#3	.09559	.13823	.40848	.10658	.27122	.46462	8.8597	.34741

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.9224	.48156	.07691	.72226	.51354	.01032	.48548	.14586
Stddev	.0055	.00058	.00012	.00147	.00204	.00007	.00081	.00059
%RSD	.28792	.12105	.15469	.20363	.39662	.70734	.16777	.40191
#1	1.9204	.48217	.07690	.72197	.51327	.01034	.48639	.14520
#2	1.9181	.48151	.07680	.72095	.51165	.01024	.48524	.14631
#3	1.9286	.48101	.07704	.72385	.51570	.01038	.48481	.14607

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.66389	.15242	.23850	.13172	2.8303	.07487	.70491	1.2628
Stddev	.00166	.00040	.00092	.00042	.0074	.00050	.00251	.0067
%RSD	.25054	.26070	.38713	.31647	.26197	.66956	.35653	.53394
#1	.66293	.15283	.23952	.13127	2.8276	.07542	.70236	1.2592
#2	.66294	.15204	.23825	.13178	2.8246	.07476	.70738	1.2587
#3	.66581	.15238	.23772	.13210	2.8387	.07443	.70500	1.2706

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.19543	.78935	.00920	.06463	.03588	2.1347	15.296
Stddev	.00072	.00272	.00002	.00018	.00010	.0085	.195
%RSD	.36628	.34514	.18490	.27683	.27287	.40025	1.2750
#1	.19486	.79098	.00920	.06450	.03591	2.1362	15.163
#2	.19521	.79086	.00922	.06456	.03577	2.1423	15.520
#3	.19624	.78620	.00919	.06484	.03596	2.1254	15.206

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S3 Acquired: 5/13/2025 12:20:32 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	2705.0	64535.	12904.	1800.1	4118.4
Stddev	11.2	232.	25.	6.9	10.0
%RSD	.41355	.35955	.19411	.38422	.24363
#1	2709.9	64279.	12912.	1795.3	4123.0
#2	2713.0	64730.	12876.	1808.0	4125.3
#3	2692.3	64598.	12924.	1796.9	4106.9

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S4 Acquired: 5/13/2025 12:24:43 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	.18375	.26682	.79318	.20228	.52350	.93237	17.216	.70596
Stddev	.00033	.00441	.00393	.00055	.00184	.00011	.065	.00063
%RSD	.17791	1.6533	.49499	.27407	.35104	.01175	.37829	.08886
#1	.18384	.27190	.79566	.20228	.52378	.93226	17.141	.70664
#2	.18338	.26453	.78866	.20172	.52154	.93239	17.249	.70541
#3	.18402	.26402	.79523	.20283	.52518	.93247	17.259	.70582

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.7420	.94661	.14799	1.4068	.98447	.01887	.94913	.29274
Stddev	.0158	.00188	.00070	.0055	.00263	.00019	.00519	.00043
%RSD	.42197	.19815	.47168	.38945	.26723	1.0222	.54675	.14741
#1	3.7497	.94727	.14766	1.4078	.98500	.01870	.94969	.29263
#2	3.7238	.94449	.14751	1.4008	.98162	.01883	.94369	.29237
#3	3.7524	.94806	.14879	1.4116	.98680	.01908	.95402	.29322

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.2839	.29372	.43157	.26041	5.4080	.13815	1.4462	2.4576
Stddev	.0053	.00032	.00173	.00018	.0244	.00084	.0057	.0074
%RSD	.41122	.10774	.40088	.07081	.45068	.60639	.39272	.30125
#1	1.2855	.29340	.43017	.26056	5.4238	.13758	1.4498	2.4620
#2	1.2780	.29372	.43104	.26020	5.3799	.13776	1.4492	2.4490
#3	1.2882	.29403	.43351	.26046	5.4203	.13912	1.4397	2.4617

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.38189	1.5514	.01707	.12697	.06984	4.3124	29.980
Stddev	.00143	.0049	.00015	.00084	.00043	.0135	.291
%RSD	.37418	.31739	.90116	.66133	.61554	.31357	.96922
#1	.38293	1.5494	.01690	.12776	.07021	4.3099	30.273
#2	.38026	1.5478	.01711	.12609	.06937	4.3003	29.692
#3	.38248	1.5570	.01720	.12704	.06995	4.3270	29.974

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S4 Acquired: 5/13/2025 12:24:43 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	2718.9	65680.	12192.	1788.5	4099.7
Stddev	8.0	148.	35.	7.1	14.3
%RSD	.29423	.22534	.28327	.39691	.34845
#1	2724.8	65811.	12153.	1782.3	4108.2
#2	2722.1	65711.	12203.	1796.3	4107.6
#3	2709.8	65519.	12219.	1787.1	4083.2

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S5 Acquired: 5/13/2025 12:28:56 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	.38921	.54866	1.6507	.42793	1.1039	1.9292	36.887	1.3711
Stddev	.00190	.00423	.0036	.00197	.0053	.0046	.188	.0065
%RSD	.48882	.77075	.22053	.46084	.47827	.23760	.51030	.47366
#1	.38745	.54400	1.6472	.42630	1.1015	1.9243	36.692	1.3650
#2	.38895	.54973	1.6504	.42737	1.1003	1.9299	37.067	1.3779
#3	.39123	.55225	1.6545	.43012	1.1100	1.9334	36.902	1.3703

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.8440	1.9743	.30129	2.9422	2.0297	.04200	1.9827	.60938
Stddev	.0144	.0089	.00070	.0052	.0088	.00006	.0067	.00190
%RSD	.18307	.45354	.23247	.17735	.43314	.14125	.33566	.31211
#1	7.8279	1.9644	.30134	2.9377	2.0240	.04194	1.9754	.60739
#2	7.8487	1.9820	.30197	2.9411	2.0253	.04206	1.9884	.61118
#3	7.8555	1.9764	.30057	2.9479	2.0398	.04200	1.9845	.60957

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.6830	.61023	.95681	.54774	11.042	.31335	2.8166	4.9966
Stddev	.0048	.00046	.00303	.00194	.068	.00021	.0129	.0178
%RSD	.17788	.07514	.31631	.35347	.61455	.06676	.45700	.35680
#1	2.6782	.60971	.96022	.54551	11.112	.31359	2.8018	4.9850
#2	2.6832	.61039	.95445	.54875	11.038	.31319	2.8230	4.9876
#3	2.6877	.61058	.95577	.54896	10.976	.31327	2.8251	5.0171

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.80097	3.2788	.03836	.27660	.15474	9.0014	62.678
Stddev	.00187	.0098	.00012	.00154	.00060	.0272	.701
%RSD	.23301	.29908	.31523	.55834	.38889	.30193	1.1188
#1	.79896	3.2680	.03823	.27519	.15412	8.9730	61.869
#2	.80131	3.2813	.03847	.27637	.15477	9.0041	63.095
#3	.80265	3.2871	.03838	.27825	.15532	9.0271	63.071

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: S5 Acquired: 5/13/2025 12:28:56 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: 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	2594.8	63060.	12591.	1725.9	3815.1
Stddev	2.0	200.	50.	8.6	.2
%RSD	.07872	.31784	.39986	.50073	.00653
#1	2594.8	62986.	12640.	1720.7	3815.1
#2	2596.8	62907.	12539.	1721.2	3815.4
#3	2592.7	63287.	12593.	1735.9	3814.9

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICV01 Acquired: 5/13/2025 12:33:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9723924	.9985359	.9666102	1.005047	1.006196	2.383050
Stddev	.0064186	.0114088	.0048943	.002917	.002566	.007246
%RSD	.6600819	1.142550	.5063331	.2902656	.2550158	.3040812
#1	.9741261	1.011487	.9630702	1.007260	1.003479	2.383852
#2	.9652850	.994151	.9645650	1.001741	1.006532	2.375435
#3	.9777660	.989970	.9721953	1.006139	1.008578	2.389861

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5343990	.4861409	.4935517	9.363311	.4986820	.4844225
Stddev	.0012393	.0024593	.0018766	.012538	.0010526	.0016757
%RSD	.2319096	.5058770	.3802195	.1339016	.2110761	.3459120
#1	.5343261	.4848432	.4922856	9.351089	.4981394	.4828605
#2	.5331978	.4889772	.4926618	9.362704	.4998952	.4842145
#3	.5356732	.4846022	.4957077	9.376142	.4980114	.4861925

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4981597	9.256861	.4824212	5.537217	.4862618	.2393646
Stddev	.0022146	.029940	.0013059	.012090	.0022566	.0008631
%RSD	.4445667	.3234387	.2706976	.2183482	.4640610	.3605979
#1	.4959926	9.269328	.4809400	5.528152	.4841679	.2384478
#2	.4980675	9.222702	.4829170	5.550945	.4859658	.2394845
#3	.5004190	9.278554	.4834066	5.532556	.4886518	.2401616

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.899490	.4735533	.9832097	10.25250	F .0164796	F .0007747
Stddev	.073489	.0031330	.0045508	.07071	.0003817	.0003153
%RSD	.7423511	.6615959	.4628473	.6897282	2.316183	40.70004
#1	9.925792	.4700318	.9811574	10.23278	.0164709	.0010853
#2	9.816469	.4745962	.9884251	10.19374	.0161024	.0004550
#3	9.956208	.4760318	.9800464	10.33098	.0168656	.0007838

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICV01 Acquired: 5/13/2025 12:33:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.001102	F .0005472	F .0157414	F .0081639	F .0003288	F .0009113
Stddev	.000203	.0002069	.0058973	.0006604	.0024477	.0012351
%RSD	18.38387	37.81064	37.46347	8.089096	744.3604	135.5273
#1	-.001293	.0003302	.0199080	.0086425	.0007950	.0003410
#2	-.000889	.0007423	.0183224	.0084388	.0025099	.0023285
#3	-.001124	.0005692	.0089936	.0074105	-.002318	.0000645

Elem	Sr4077
Units	ppm
Avg	F -.007228
Stddev	.000006
%RSD	.0847175
#1	-.007230
#2	-.007232
#3	-.007221

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2782.251	67075.45	13082.00	1837.435	4331.596
Stddev	8.663	73.21	61.82	4.576	10.983
%RSD	.3113767	.1091527	.4725386	.2490365	.2535497
#1	2787.684	67150.37	13104.64	1839.035	4338.501
#2	2786.808	67004.07	13012.05	1832.274	4337.356
#3	2772.260	67071.90	13129.31	1840.996	4318.932

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: LLICV01 Acquired: 5/13/2025 12:50:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0209301	.0393731	.0113950	.0231919	.0523877	.1100711	.0922320
Stddev	.0018801	.0013718	.0015581	.0034285	.0007936	.0011399	.0012850
%RSD	8.982523	3.484078	13.67313	14.78329	1.514908	1.035596	1.393269
#1	.0229866	.0406704	.0096868	.0255926	.0517943	.1109045	.0937048
#2	.0205041	.0379374	.0117601	.0192653	.0532892	.1105367	.0913395
#3	.0192996	.0395116	.0127381	.0247176	.0520797	.1087722	.0916516

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061084	.0061439	1.968679	.0093585	.0297986	.0222267	.0972958
Stddev	.0000288	.0000758	.006341	.0004106	.0000757	.0002794	.0008286
%RSD	.4721957	1.233839	.3220943	4.388043	.2540831	1.257126	.8516602
#1	.0061407	.0061563	1.971481	.0090435	.0297215	.0219275	.0982167
#2	.0060990	.0060626	1.961420	.0098229	.0298728	.0224808	.0970603
#3	.0060853	.0062127	1.973137	.0092089	.0298015	.0222717	.0966105

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0205753	2.104818	.0395450	.0099848	1.693135	.0389200	.0418695
Stddev	.0003211	.018238	.0004840	.0003977	.023906	.0011676	.0007859
%RSD	1.560547	.8664959	1.223887	3.982928	1.411934	2.999883	1.877017
#1	.0208690	2.105494	.0397540	.0104086	1.719481	.0381184	.0409685
#2	.0206244	2.086252	.0398895	.0096197	1.672829	.0383819	.0422260
#3	.0202325	2.122710	.0389917	.0099260	1.687094	.0402595	.0424139

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.798327	.1088934	.2097754	.0403683	.0404199	.3779069	.0217476
Stddev	.013180	.0008476	.0006836	.0006553	.0006836	.0082349	.0041490
%RSD	.7329288	.7783625	.3258509	1.623434	1.691166	2.179073	19.07796
#1	1.808308	.1096706	.2093925	.0408960	.0405760	.3720516	.0225908
#2	1.783386	.1079896	.2093691	.0396348	.0410119	.3873229	.0172418
#3	1.803286	.1090201	.2105646	.0405742	.0396718	.3743460	.0254103

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: LLICV01 Acquired: 5/13/2025 12:50:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0225893	.0183254	.0195214
Stddev	.0024226	.0010720	.0000126
%RSD	10.72451	5.849610	.0647666
#1	.0198872	.0171102	.0195136
#2	.0233135	.0187291	.0195145
#3	.0245672	.0191369	.0195360

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2825.843	68066.01	12598.25	1871.366	4423.907
Stddev	3.565	53.10	46.83	7.819	9.185
%RSD	.1261618	.0780165	.3716886	.4178054	.2076323
#1	2829.399	68011.21	12546.31	1864.510	4427.466
#2	2825.862	68069.58	12611.22	1879.881	4430.781
#3	2822.269	68117.24	12637.23	1869.708	4413.475

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICB01 Acquired: 5/13/2025 12:55:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011252	-.000192	-.000590	.0035347	.0015631	-.003170	.0006202
Stddev	.0018084	.001783	.001248	.0032815	.0010750	.003805	.0002100
%RSD	160.7112	926.3834	211.6209	92.83652	68.77127	120.0549	33.86601
#1	.0029693	-.001934	.000630	.0065027	.0012707	-.006389	.0007862
#2	-.000645	-.000272	-.001864	.0000108	.0027541	-.004149	.0003841
#3	.001052	.001629	-.000534	.0040906	.0006646	.001030	.0006903

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000035	.0000672	-.000406	-.000234	.0002953	-.000209	.0026800
Stddev	.000037	.0000531	.010064	.000151	.0001479	.000109	.0018864
%RSD	105.7692	79.10107	2479.874	64.39793	50.09214	51.87448	70.38507
#1	.000005	.0001235	.011009	-.000076	.0001451	-.000123	.0023346
#2	-.000042	.0000602	-.008002	-.000251	.0004408	-.000173	.0009903
#3	-.000069	.0000179	-.004224	-.000377	.0003000	-.000331	.0047153

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000062	.0048591	.0003079	.0001513	-.203003	-.001854	.0004090
Stddev	.000648	.0108825	.0001151	.0001321	.014053	.001070	.0003728
%RSD	1044.905	223.9616	37.36714	87.26898	6.922359	57.70139	91.16362
#1	-.000782	.0174240	.0004258	.0003037	-.209307	-.000876	.0000332
#2	.000122	-.001568	.0003021	.0000698	-.186902	-.002997	.0007788
#3	.000474	-.001279	.0001959	.0000805	-.212800	-.001690	.0004149

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.034776	-.003243	.0001377	.0000724	.0003637	.0029704	.0014470
Stddev	.028305	.000071	.0004651	.0003877	.0002723	.0039440	.0036345
%RSD	81.39299	2.196569	337.8717	535.1218	74.86026	132.7788	251.1707
#1	-.063605	-.003312	-.000397	.0002269	.0006112	.0005079	.0037773
#2	-.007026	-.003170	.000452	.0003591	.0000720	.0008839	.0033047
#3	-.033696	-.003248	.000358	-.000369	.0004081	.0075193	-.002741

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICB01 Acquired: 5/13/2025 12:55:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000827	-.000607	-.000019
Stddev	.003568	.000691	.000110
%RSD	431.7029	113.6874	571.5295
#1	.001075	-.001261	-.000120
#2	.001388	-.000677	.000098
#3	-.004943	.000115	-.000037

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2825.597	66809.00	12255.12	1859.984	4431.277
Stddev	3.751	234.53	50.89	5.525	6.936
%RSD	.1327358	.3510510	.4152612	.2970367	.1565266
#1	2828.174	66888.94	12198.01	1853.607	4436.636
#2	2827.323	66544.95	12295.68	1863.324	4433.752
#3	2821.294	66993.12	12271.66	1863.021	4423.443

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CRI01 Acquired: 5/13/2025 13:00:02 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0226488	.0386175	.0116770	.0240204	.0530373	.1121889	.0919464
Stddev	.0029586	.0012502	.0006278	.0010101	.0006230	.0046130	.0016901
%RSD	13.06303	3.237325	5.376069	4.204964	1.174658	4.111769	1.838117
#1	.0224120	.0400458	.0117664	.0244846	.0537267	.1074048	.0937720
#2	.0198158	.0380848	.0110093	.0247149	.0528705	.1166092	.0904362
#3	.0257188	.0377220	.0122553	.0228617	.0525147	.1125528	.0916311

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062832	.0064076	1.989915	.0094901	.0297438	.0223207	.0967468
Stddev	.0000384	.0001183	.010883	.0005555	.0005626	.0003359	.0055611
%RSD	.6119552	1.846866	.5469032	5.853091	1.891630	1.504781	5.748085
#1	.0063172	.0064860	1.978474	.0098620	.0299966	.0223725	.0981278
#2	.0062415	.0064654	1.991136	.0088516	.0301357	.0226276	.1014874
#3	.0062911	.0062715	2.000137	.0097567	.0290991	.0219619	.0906254

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0202192	2.111954	.0401509	.0100872	1.701191	.0381008	.0426218
Stddev	.0000191	.013277	.0005500	.0001009	.007092	.0010074	.0006495
%RSD	.0946118	.6286400	1.369823	1.000644	.4169061	2.644080	1.523920
#1	.0202153	2.126874	.0406912	.0100132	1.693084	.0392636	.0420238
#2	.0202023	2.101442	.0401696	.0102022	1.706247	.0375455	.0425289
#3	.0202399	2.107546	.0395917	.0100463	1.704243	.0374932	.0433128

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.828905	.1065712	.2076067	.0409184	.0404859	.3797376	.0206149
Stddev	.011378	.0006044	.0027967	.0014220	.0006495	.0143833	.0023372
%RSD	.6221207	.5671683	1.347130	3.475141	1.604364	3.787700	11.33742
#1	1.825290	.1066354	.2091107	.0412552	.0399700	.3886721	.0221974
#2	1.841651	.1059372	.2093296	.0421418	.0402724	.3873952	.0217168
#3	1.819773	.1071410	.2043798	.0393583	.0412153	.3631455	.0179304

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CRI01 Acquired: 5/13/2025 13:00:02 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0211454	.0189012	.0194810
Stddev	.0068457	.0006835	.0001565
%RSD	32.37436	3.615950	.8032923
#1	.0196914	.0182164	.0194234
#2	.0151435	.0189039	.0193615
#3	.0286013	.0195834	.0196581

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2755.669	66788.05	12620.93	1866.165	4251.490
Stddev	38.470	103.68	85.48	8.232	53.177
%RSD	1.396028	.1552355	.6773001	.4411073	1.250776
#1	2740.331	66761.33	12526.15	1874.087	4214.825
#2	2727.235	66700.34	12692.18	1857.655	4227.167
#3	2799.442	66902.47	12644.47	1866.752	4312.478

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICSA01 Acquired: 5/13/2025 13:04:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026466	.0086459	-.001226	-.007512	-.002629	239.4224	.0045277
Stddev	.0031268	.0046936	.001184	.005475	.001754	.2705	.0007100
%RSD	118.1423	54.28749	96.59742	72.88401	66.71165	.1129652	15.68180
#1	.0010180	.0053812	-.000108	-.012411	-.000764	239.2490	.0053187
#2	.0006703	.0140248	-.001102	-.001602	-.004244	239.2840	.0043193
#3	.0062515	.0065317	-.002467	-.008524	-.002878	239.7340	.0039453

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011772	-.002576	223.5558	.0538101	.0010711	-.000615	88.97565
Stddev	.0000619	.000080	.6389	.0002584	.0008771	.000112	.47140
%RSD	5.255606	3.093918	.2857681	.4801352	81.88284	18.19972	.5298055
#1	.0011110	-.002621	223.5120	.0535381	.0017740	-.000527	88.96222
#2	.0011872	-.002484	222.9400	.0538401	.0000882	-.000578	88.51110
#3	.0012335	-.002623	224.2155	.0540522	.0013513	-.000741	89.45361

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039672	241.5377	.0021565	.0002157	-.036568	-.000386	.0037489
Stddev	.0001746	.5976	.0002217	.0003379	.009685	.000839	.0008343
%RSD	4.402216	.2474301	10.27967	156.6394	26.48554	217.1921	22.25312
#1	.0041144	241.4885	.0022793	-.000170	-.030616	-.000778	.0040881
#2	.0040129	240.9662	.0019006	.000459	-.047743	.000577	.0043602
#3	.0037742	242.1584	.0022895	.000359	-.031344	-.000958	.0027985

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.028398	-.003118	-.000037	-.006660	-.001480	.0224168	.0027170
Stddev	.024008	.001090	.000648	.000760	.000996	.0103885	.0018604
%RSD	84.53927	34.95249	1754.620	11.41342	67.31001	46.34245	68.47358
#1	-.016045	-.001877	-.000781	-.007538	-.000871	.0311331	.0038461
#2	-.013083	-.003919	.000403	-.006199	-.002630	.0251960	.0005697
#3	-.056067	-.003558	.000267	-.006245	-.000939	.0109214	.0037351

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICSA01 Acquired: 5/13/2025 13:04:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.012245	.0010147	.0073872
Stddev	.007677	.0007868	.0002727
%RSD	62.69817	77.53988	3.691532
#1	-.019824	.0015827	.0071316
#2	-.012437	.0001166	.0076743
#3	-.004473	.0013447	.0073558

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2516.701	60128.92	11955.41	1669.842	3708.963
Stddev	8.605	130.27	18.02	7.246	6.999
%RSD	.3419054	.2166470	.1507027	.4339331	.1887125
#1	2525.525	60080.88	11952.53	1671.270	3713.304
#2	2508.334	60276.39	11974.70	1676.267	3700.889
#3	2516.244	60029.50	11939.01	1661.988	3712.697

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICSAB01 Acquired: 5/13/2025 13:08:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1062396	.0926787	.0436294	.0371138	.5990076	236.9204
Stddev	.0057332	.0018555	.0019295	.0048450	.0058855	.3452
%RSD	5.396535	2.002067	4.422547	13.05440	.9825495	.1457209
#1	.1026882	.0942835	.0433714	.0387223	.5950270	236.8067
#2	.1031767	.0906470	.0418418	.0409500	.5962275	236.6463
#3	.1128537	.0931056	.0456749	.0316691	.6057682	237.3081

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4471893	.4857475	.9515258	222.2006	.5271702	.4688805
Stddev	.0018908	.0037973	.0043991	.1727	.0017191	.0021565
%RSD	.4228088	.7817387	.4623191	.0777058	.3260961	.4599190
#1	.4492029	.4828137	.9509493	222.1531	.5280772	.4679900
#2	.4454518	.4843925	.9474434	222.0567	.5251875	.4673118
#3	.4469130	.4900365	.9561847	222.3920	.5282457	.4713396

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4669195	90.57677	.4554808	238.5103	.9320252	.2025230
Stddev	.0029399	.66758	.0029980	.7763	.0030179	.0006308
%RSD	.6296441	.7370349	.6582033	.3254908	.3238012	.3114596
#1	.4655662	91.34641	.4574269	237.9294	.9315908	.2026862
#2	.4649000	90.15449	.4520284	238.2095	.9292480	.2018266
#3	.4702924	90.22940	.4569872	239.3920	.9352367	.2030560

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.167765	.4444070	.9782338	-.041502	F -.001118	F -.000077
Stddev	.009151	.0045041	.0010203	.010602	.001349	.000596
%RSD	5.454839	1.013508	.1042962	25.54550	120.7113	778.7530
#1	-.158341	.4473490	.9773361	-.036469	.000126	-.000758
#2	-.168336	.4466503	.9780220	-.034354	-.000927	.000178
#3	-.176617	.4392218	.9793434	-.053683	-.002553	.000350

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICSAB01 Acquired: 5/13/2025 13:08:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.005755	F -.001486	F .0126394	F .0017990	F -.015683	F .0012612
Stddev	.000123	.000432	.0085337	.0019602	.006116	.0014144
%RSD	2.137038	29.04971	67.51661	108.9627	38.99703	112.1470
#1	-.005629	-.001151	.0184901	.0021021	-.011561	.0028938
#2	-.005875	-.001973	.0028474	-.000295	-.012779	.0004826
#3	-.005760	-.001333	.0165806	.003590	-.022710	.0004072

Elem	Sr4077
Units	ppm
Avg	F .0058184
Stddev	.0002316
%RSD	3.980249
#1	.0055621
#2	.0058806
#3	.0060125

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2513.017	60278.79	12293.87	1676.833	3716.065
Stddev	14.323	244.06	54.34	6.458	18.050
%RSD	.5699618	.4048853	.4420429	.3851354	.4857418
#1	2518.558	60024.92	12333.89	1669.660	3722.090
#2	2523.743	60511.68	12315.72	1682.185	3730.333
#3	2496.752	60299.79	12232.00	1678.654	3695.773

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICSADLX20 Acquired: 5/13/2025 13:12:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000003	-.000194	.0008079	.0039800	-.000237	12.16975	-.000763
Stddev	.002252	.001410	.0001854	.0017992	.002713	.01160	.001341
%RSD	67947.77	726.9677	22.95261	45.20595	1146.807	.0953415	175.7993
#1	-.001163	-.000277	.0007696	.0056225	-.002843	12.17881	-.000486
#2	-.001438	.001256	.0010095	.0042606	-.000439	12.17378	-.002220
#3	.002592	-.001560	.0006446	.0020570	.002572	12.15667	.000418

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001344	-.000224	11.95739	.0025311	.0001120	-.000319	4.912552
Stddev	.0000293	.000042	.00805	.0003323	.0001221	.000277	.024845
%RSD	21.77334	18.74704	.0673381	13.12835	108.9798	87.07770	.5057353
#1	.0001275	-.000197	11.94811	.0023529	.0001419	-.000451	4.940338
#2	.0001666	-.000272	11.96157	.0023259	-.000022	.000000	4.892478
#3	.0001093	-.000203	11.96250	.0029145	.000216	-.000505	4.904839

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007685	12.29446	.0004365	.0000651	-.289943	-.001062	.0003090
Stddev	.0001936	.02323	.0003972	.0006113	.010103	.001252	.0004584
%RSD	25.19254	.1889511	91.00293	938.8119	3.484330	117.8509	148.3450
#1	.0005795	12.27242	.0005285	.0007704	-.301575	-.002458	-.000219
#2	.0007595	12.29224	.0007797	-.000312	-.283359	-.000039	.000609
#3	.0009664	12.31872	.0000014	-.000263	-.284895	-.000689	.000537

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.066491	-.006805	-.000240	-.001417	.0007650	.0006319	-.001407
Stddev	.011084	.000277	.000325	.000457	.0004711	.0098981	.002406
%RSD	16.67066	4.076336	134.9466	32.26882	61.59001	1566.353	170.9865
#1	-.078071	-.006500	-.000007	-.001635	.0004245	.0111323	-.001512
#2	-.065422	-.007041	-.000611	-.001723	.0013027	-.000710	-.003760
#3	-.055979	-.006875	-.000103	-.000891	.0005677	-.008527	.001050

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICSADLX20 Acquired: 5/13/2025 13:12:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002390	-.002410	.0003202
Stddev	.004891	.000256	.0000894
%RSD	204.6651	10.62804	27.90899
#1	.002871	-.002621	.0003823
#2	-.003240	-.002125	.0002178
#3	-.006800	-.002485	.0003605

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2759.298	65785.44	13127.80	1835.888	4265.164
Stddev	10.823	72.97	15.32	5.902	14.330
%RSD	.3922217	.1109177	.1167134	.3214857	.3359832
#1	2764.355	65734.18	13131.68	1831.739	4277.874
#2	2766.667	65868.98	13140.82	1833.279	4267.985
#3	2746.873	65753.15	13110.92	1842.645	4249.633

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICSABDLX20 Acquired: 5/13/2025 13:17:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049651	.0058436	.0029461	.0033820	.0318645	11.84230	.0241512
Stddev	.0011624	.0018331	.0008605	.0032721	.0017903	.01375	.0016404
%RSD	23.41191	31.37012	29.20859	96.75009	5.618322	.1161281	6.792345
#1	.0036391	.0079601	.0020676	.0049691	.0298763	11.82741	.0259415
#2	.0054477	.0048052	.0029835	.0055578	.0323684	11.85453	.0227201
#3	.0058085	.0047653	.0037874	-.000381	.0333488	11.84496	.0237921

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0289999	.0539434	11.50440	.0298097	.0259631	.0269450	4.402797
Stddev	.0000382	.0002089	.02675	.0004085	.0004360	.0002949	.034931
%RSD	.1315770	.3872717	.2325491	1.370261	1.679192	1.094454	.7933736
#1	.0290349	.0537306	11.53336	.0293802	.0263920	.0266261	4.386149
#2	.0290054	.0539516	11.49923	.0301933	.0255204	.0270009	4.442937
#3	.0289592	.0541481	11.48061	.0298555	.0259768	.0272079	4.379304

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0274115	11.91976	.0525567	.0092717	-.315531	.0253167	.0554077
Stddev	.0003617	.03657	.0008419	.0003099	.007938	.0011782	.0007359
%RSD	1.319628	.3067659	1.601968	3.341949	2.515806	4.653804	1.328058
#1	.0277905	11.96130	.0518127	.0095922	-.316901	.0245310	.0547308
#2	.0270699	11.89247	.0523868	.0089737	-.306997	.0247478	.0553013
#3	.0273742	11.90549	.0534707	.0092491	-.322694	.0266714	.0561909

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.097242	-.007595	-.000228	-.001831	-.000294	.0086511	.0004343
Stddev	.021998	.001304	.000678	.001618	.000391	.0054028	.0032734
%RSD	22.62188	17.16640	297.7542	88.36728	132.8984	62.45292	753.7589
#1	-.088473	-.008001	.000424	-.000195	-.000448	.0091576	.0007392
#2	-.080981	-.006137	-.000178	-.003430	-.000585	.0137828	-.002981
#3	-.122272	-.008648	-.000930	-.001866	.000150	.0030128	.003544

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: ICSABDLX20 Acquired: 5/13/2025 13:17:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0043187	-.001367	.0004764
Stddev	.0041912	.001198	.0000171
%RSD	97.04875	87.61036	3.590815
#1	.0090676	-.000120	.0004798
#2	.0011366	-.001473	.0004578
#3	.0027519	-.002508	.0004915

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2825.868	66421.19	12387.64	1839.629	4409.970
Stddev	10.111	112.45	55.82	1.174	12.174
%RSD	.3578188	.1692990	.4505853	.0638133	.2760576
#1	2831.680	66506.99	12325.31	1840.949	4413.644
#2	2831.732	66293.89	12433.03	1839.237	4419.885
#3	2814.192	66462.69	12404.57	1838.701	4396.382

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV01 Acquired: 5/13/2025 13:21:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.866328	4.801055	4.865860	4.877786	4.881396	9.818222	9.591482
Stddev	.018627	.062136	.019231	.022803	.027742	.019017	.050342
%RSD	.3827729	1.294219	.3952231	.4674821	.5683172	.1936916	.5248573
#1	4.854438	4.865786	4.859859	4.857827	4.854794	9.801490	9.607242
#2	4.856751	4.795492	4.850345	4.872891	4.879242	9.838904	9.535145
#3	4.887796	4.741887	4.887376	4.902638	4.910152	9.814272	9.632057

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2533117	2.436551	24.36269	.9933014	2.429208	1.233837	4.827146
Stddev	.0001562	.010331	.06375	.0031519	.008800	.006263	.008053
%RSD	.0616782	.4239907	.2616628	.3173191	.3622387	.5076044	.1668239
#1	.2534917	2.430465	24.43618	.9927453	2.424216	1.229069	4.836127
#2	.2532322	2.430708	24.32223	.9966944	2.424040	1.231511	4.824741
#3	.2532112	2.448479	24.32968	.9904646	2.439368	1.240930	4.820569

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.431395	24.41313	2.441289	1.233253	24.20814	2.420607	2.478390
Stddev	.008570	.07664	.009859	.002347	.04443	.002536	.004960
%RSD	.3524560	.3139360	.4038613	.1902997	.1835400	.1047836	.2001391
#1	2.440712	24.47015	2.435640	1.235482	24.20179	2.419774	2.484108
#2	2.423849	24.32601	2.435554	1.233473	24.25541	2.423456	2.475242
#3	2.429624	24.44323	2.452674	1.230804	24.16723	2.418593	2.475821

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.03916	5.002700	4.923364	4.842573	4.840662	4.778509	4.793311
Stddev	.08486	.009783	.022438	.012881	.009108	.012328	.015584
%RSD	.3530192	.1955594	.4557419	.2660018	.1881488	.2579810	.3251280
#1	24.05577	5.010690	4.908842	4.834227	4.851133	4.764436	4.809795
#2	24.11449	4.991789	4.912043	4.836083	4.836274	4.787400	4.778818
#3	23.94722	5.005620	4.949207	4.857408	4.834579	4.783690	4.791320

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV01 Acquired: 5/13/2025 13:21:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.751316	4.916120	4.850841
Stddev	.013472	.004690	.039709
%RSD	.2835344	.0954043	.8186006
#1	4.753051	4.912398	4.850609
#2	4.737062	4.921388	4.890666
#3	4.763837	4.914573	4.811249

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2720.229	64395.95	12490.25	1786.606	4116.530
Stddev	15.999	99.42	9.31	4.520	22.707
%RSD	.5881624	.1543847	.0745301	.2530045	.5516044
#1	2730.231	64442.91	12500.86	1784.523	4128.892
#2	2728.679	64281.75	12483.47	1783.502	4130.374
#3	2701.776	64463.19	12486.42	1791.792	4090.324

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB01 Acquired: 5/13/2025 13:26:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000467	.0024222	-.000699	.0022086	-.000250	.0036408	.0006791
Stddev	.001361	.0015062	.000758	.0035028	.002578	.0009524	.0007910
%RSD	291.4252	62.18185	108.5004	158.5995	1030.009	26.15842	116.4690
#1	-.001905	.0023573	.000104	.0045301	-.001818	.0034308	.0010242
#2	.000802	.0039598	-.001404	-.001821	-.001657	.0046807	.0012389
#3	-.000299	.0009495	-.000797	.003916	.002725	.0028110	-.000226

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000099	.0000242	.0056681	-.000389	.0001859	-.000398	-.002185
Stddev	.000059	.0001620	.0076566	.000130	.0001575	.000350	.001210
%RSD	59.18136	670.2542	135.0828	33.50346	84.68796	88.04998	55.36941
#1	-.000166	.0001304	-.002524	-.000263	.0002689	-.000188	-.000819
#2	-.000059	-.000162	.006884	-.000523	.0000043	-.000803	-.003122
#3	-.000072	.000104	.012644	-.000380	.0002845	-.000204	-.002612

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001520	.0062634	.0002392	-.000188	-.339322	-.000046	.0003931
Stddev	.0001200	.0061339	.0002347	.000416	.005593	.001479	.0004251
%RSD	78.97422	97.93160	98.13538	221.6490	1.648176	3187.190	108.1294
#1	.0002288	.0072257	.0000027	.000268	-.335897	.001598	.0001403
#2	.0000137	.0118593	.0002428	-.000285	-.345776	-.001269	.0001552
#3	.0002135	-.000295	.0004720	-.000547	-.336294	-.000468	.0008839

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.107581	-.000442	.0006834	-.000583	.0009598	.0084980	-.001766
Stddev	.025930	.000574	.0000460	.001059	.0009809	.0041474	.001592
%RSD	24.10303	129.9203	6.737405	181.5225	102.2002	48.80497	90.16214
#1	-.126873	-.001102	.0007282	-.001545	-.000103	.0072893	.000055
#2	-.078105	-.000160	.0006362	-.000757	.001830	.0050892	-.002457
#3	-.117767	-.000063	.0006858	.000552	.001152	.0131156	-.002895

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB01 Acquired: 5/13/2025 13:26:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000987	-.000647	.0001553
Stddev	.002020	.000830	.0000126
%RSD	204.7308	128.1778	8.087043
#1	.000555	-.000948	.0001492
#2	-.000242	.000291	.0001697
#3	-.003274	-.001285	.0001469

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2818.514	67730.65	12099.81	1876.737	4410.977
Stddev	15.950	168.89	9.66	6.008	12.201
%RSD	.5658849	.2493560	.0798657	.3201420	.2766132
#1	2832.231	67925.16	12097.83	1882.331	4421.353
#2	2822.298	67645.52	12091.29	1877.492	4414.043
#3	2801.013	67621.26	12110.31	1870.386	4397.535

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167916BL Acquired: 5/13/2025 13:30:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011173	.0002885	.0006871	.0010607	-.000912	.0002156	-.001371
Stddev	.0040613	.0010381	.0011898	.0023639	.001699	.0028145	.001139
%RSD	363.4785	359.8053	173.1621	222.8709	186.3640	1305.443	83.08146
#1	.0054367	-.000571	.0012626	.0037014	-.000086	-.003034	-.002275
#2	.0005392	-.000005	-.000681	-.000858	.000217	.001873	-.001748
#3	-.002624	.001442	.001480	.000339	-.002866	.001808	-.000091

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000089	-.000005	.0097934	-.000550	.0003468	.0002699	.0009972
Stddev	.000057	.000022	.0050596	.000516	.0001371	.0001052	.0026480
%RSD	63.84165	442.0888	51.66385	93.80089	39.53125	38.99763	265.5521
#1	-.000153	.000019	.0151058	-.001136	.0004065	.0003440	.0037433
#2	-.000043	-.000025	.0092427	-.000169	.0001900	.0003162	-.001540
#3	-.000072	-.000009	.0050316	-.000344	.0004440	.0001494	.000789

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005458	.0081032	.0001125	-.000010	-.347340	-.000522	.0004399
Stddev	.0003789	.0119415	.0003349	.000199	.010982	.001382	.0001931
%RSD	69.40918	147.3677	297.6106	1968.711	3.161740	264.7319	43.88397
#1	.0003760	.0217449	-.000122	-.000190	-.338747	.000657	.0006020
#2	.0009799	.0030227	.000496	-.000044	-.359713	-.002044	.0004916
#3	.0002816	-.000458	-.000037	.000204	-.343561	-.000179	.0002263

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.070812	-.004931	.0002209	-.001150	.0002356	.0080111	.0004848
Stddev	.016523	.000739	.0001916	.000346	.0004387	.0077189	.0032880
%RSD	23.33374	14.98484	86.70842	30.11502	186.2209	96.35229	678.1860
#1	-.078116	-.004487	.0004278	-.001392	.0004835	.0041304	.0037268
#2	-.051896	-.005784	.0001854	-.001306	-.000271	.0169004	.0005750
#3	-.082426	-.004522	.0000496	-.000753	.000494	.0030027	-.002847

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167916BL Acquired: 5/13/2025 13:30:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001946	-.001028	-.000048
Stddev	.001864	.000762	.000042
%RSD	95.81967	74.15631	88.43203
#1	-.000229	-.001545	-.000057
#2	-.001679	-.000152	-.000085
#3	-.003929	-.001387	-.000002

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2821.489	66808.17	13268.52	1849.706	4431.682
Stddev	7.466	156.28	57.12	1.905	10.047
%RSD	.2646068	.2339298	.4304979	.1030075	.2267169
#1	2825.713	66630.70	13275.92	1849.397	4427.056
#2	2825.886	66868.60	13321.58	1847.974	4443.209
#3	2812.869	66925.22	13208.06	1851.747	4424.781

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167916BS Acquired: 5/13/2025 13:52:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7612574	1.898276	.9381957	1.916918	.7623618	1.871708
Stddev	.0065502	.033281	.0043460	.012861	.0059390	.002312
%RSD	.8604471	1.753241	.4632306	.6709099	.7790277	.1235329
#1	.7555225	1.859932	.9333521	1.904501	.7558865	1.870012
#2	.7598542	1.915225	.9394807	1.916073	.7636439	1.874342
#3	.7683955	1.919672	.9417544	1.930181	.7675551	1.870771

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1760385	.2004233	.1917160	.9528958	.3881032	.1860994
Stddev	.0012407	.0005548	.0009229	.0018515	.0012830	.0016133
%RSD	.7047768	.2767900	.4813936	.1943007	.3305901	.8668757
#1	.1770933	.2008093	.1910328	.9508776	.3891527	.1844461
#2	.1746716	.2006729	.1913492	.9545158	.3884841	.1861827
#3	.1763506	.1997876	.1927659	.9532939	.3866729	.1876694

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2928713	2.736051	.1890865	1.859299	.4711894	.0718872
Stddev	.0011821	.004159	.0004120	.013360	.0022600	.0001701
%RSD	.4036151	.1520002	.2178789	.7185767	.4796355	.2366436
#1	.2916541	2.731310	.1887030	1.844523	.4689354	.0719684
#2	.2929453	2.737761	.1895221	1.862845	.4711775	.0716917
#3	.2940147	2.739082	.1890344	1.870529	.4734553	.0720016

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.903080	.2760808	.1965851	8.773207	.2933818	.3886033
Stddev	.012102	.0027613	.0011831	.034803	.0025352	.0028599
%RSD	.4168543	1.000171	.6018333	.3966910	.8641299	.7359351
#1	2.914002	.2730948	.1978792	8.806663	.2909623	.3855381
#2	2.890070	.2766057	.1955590	8.737198	.2931644	.3890718
#3	2.905169	.2785420	.1963171	8.775759	.2960188	.3912000

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167916BS Acquired: 5/13/2025 13:52:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6512283	.1863164	.7784722	5.563048	F -.008310	.1981040
Stddev	.0034434	.0005631	.0097165	.047094	.001739	.0002488
%RSD	.5287597	.3022012	1.248153	.8465423	20.92885	.1255997
#1	.6484188	.1861325	.7727961	5.529578	-.009542	.1980430
#2	.6501964	.1858683	.7896916	5.542667	-.009067	.1983777
#3	.6550697	.1869484	.7729288	5.616899	-.006320	.1978914

Elem	Sr4077
Units	ppm
Avg	.1835820
Stddev	.0003924
%RSD	.2137505
#1	.1834233
#2	.1832938
#3	.1840289

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2786.354	65505.33	12476.66	1830.302	4363.474
Stddev	9.599	229.93	26.75	10.288	9.815
%RSD	.3445041	.3510050	.2143889	.5620680	.2249433
#1	2795.392	65284.56	12483.88	1824.159	4372.620
#2	2787.392	65743.44	12499.06	1842.179	4364.697
#3	2776.278	65488.00	12447.05	1824.569	4353.104

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167909BL Acquired: 5/13/2025 13:57:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003515	.0017074	-.001338	.0031334	.0010609	.0055992	.0005453
Stddev	.0042057	.0020179	.001552	.0018773	.0007841	.0033416	.0014562
%RSD	1196.412	118.1877	116.0011	59.91268	73.90780	59.67923	267.0525
#1	-.003042	.0039981	-.001837	.0048296	.0018987	.0027526	.0017709
#2	.005057	.0001927	-.002578	.0011163	.0009392	.0092783	.0009296
#3	-.000961	.0009313	.000402	.0034545	.0003448	.0047668	-.001065

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000118	.0000082	.0022371	.0000863	.0002142	-.000231	.0001695
Stddev	.000068	.0000693	.0205371	.0000399	.0002982	.000214	.0028854
%RSD	57.57790	840.9004	918.0241	46.29643	139.2210	93.02920	1702.691
#1	-.000092	.0000702	.0155599	.0000631	-.000055	-.000398	.0017796
#2	-.000066	.0000211	.0125654	.0001324	.000534	-.000305	-.003162
#3	-.000194	-.000067	-.021414	.0000633	.000163	.000011	.001890

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004563	-.001927	-.000109	.0001450	-.345185	-.000408	.0001418
Stddev	.0004862	.009475	.000316	.0000979	.008604	.001122	.0004303
%RSD	106.5463	491.5966	290.4724	67.55635	2.492463	275.2175	303.3890
#1	-.000105	.005722	-.000433	.0001962	-.354866	-.001199	-.000268
#2	.000730	.001022	-.000092	.0000320	-.342274	.000876	.000103
#3	.000744	-.012526	.000198	.0002067	-.338414	-.000899	.000590

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.086747	-.008112	.0001835	.0001914	.0003357	-.001347	-.000926
Stddev	.027060	.000626	.0004645	.0009540	.0002129	.007718	.001158
%RSD	31.19455	7.722432	253.1052	498.4564	63.41265	572.9553	125.0607
#1	-.094039	-.008806	.0002234	.0010808	.0004434	.000188	-.000073
#2	-.109413	-.007941	.0006268	-.000816	.0004733	-.009717	-.002245
#3	-.056787	-.007588	-.000300	.000310	.0000905	.005488	-.000461

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167909BL Acquired: 5/13/2025 13:57:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001006	-.001510	.0000090
Stddev	.003379	.000723	.0000587
%RSD	335.9767	47.88668	649.6438
#1	-.003332	-.001066	-.000047
#2	-.002556	-.002344	.000004
#3	.002871	-.001119	.000070

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2813.716	66189.07	12291.22	1848.494	4422.389
Stddev	11.851	205.44	21.22	9.399	16.016
%RSD	.4212013	.3103800	.1726538	.5084736	.3621643
#1	2822.871	66356.99	12269.84	1852.654	4437.271
#2	2817.947	66250.22	12291.56	1855.096	4424.457
#3	2800.330	65960.00	12312.28	1837.733	4405.439

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167909BS Acquired: 5/13/2025 14:01:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7642653	1.842119	.9433476	1.931308	.7796999	1.859040
Stddev	.0069265	.018912	.0035383	.011170	.0024243	.009896
%RSD	.9062934	1.026658	.3750743	.5783770	.3109277	.5323074
#1	.7668338	1.835367	.9397494	1.918474	.7786956	1.857259
#2	.7564215	1.827508	.9434706	1.936611	.7779390	1.850156
#3	.7695407	1.863480	.9468228	1.938838	.7824649	1.869706

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1775075	.1941015	.1931517	.9540137	.3842031	.1876935
Stddev	.0005972	.0005917	.0004322	.0193071	.0004916	.0009010
%RSD	.3364391	.3048257	.2237788	2.023777	.1279602	.4800243
#1	.1775992	.1935688	.1929890	.9638957	.3839787	.1867608
#2	.1780537	.1939975	.1928244	.9663793	.3847669	.1877606
#3	.1768698	.1947383	.1936416	.9317659	.3838637	.1885590

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2936743	2.744257	.1888585	1.831298	.4745765	.0712135
Stddev	.0001995	.006226	.0017990	.021653	.0013014	.0003319
%RSD	.0679195	.2268890	.9525675	1.182374	.2742287	.4660719
#1	.2936154	2.737117	.1868471	1.813971	.4746044	.0712483
#2	.2935108	2.747099	.1903137	1.824351	.4732614	.0708655
#3	.2938965	2.748556	.1894149	1.855571	.4758638	.0715266

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.421298	.2747463	.1937066	8.811649	.2842350	.3930446
Stddev	.011244	.0016233	.0007617	.044116	.0006279	.0019939
%RSD	.4643663	.5908336	.3932507	.5006610	.2208941	.5073043
#1	2.426256	.2728979	.1928291	8.827100	.2849049	.3909131
#2	2.429210	.2759400	.1940931	8.845961	.2841400	.3933566
#3	2.408427	.2754009	.1941976	8.761885	.2836600	.3948642

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167909BS Acquired: 5/13/2025 14:01:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6673185	.1898369	F .7924677	5.651101	F -.011065	.1966317
Stddev	.0008358	.0002130	.0123703	.027611	.005308	.0017486
%RSD	.1252414	.1121823	1.560983	.4885905	47.97287	.8892984
#1	.6670074	.1898470	.7940613	5.643046	-.009203	.1948577
#2	.6666829	.1900447	.8039640	5.628414	-.017054	.1966837
#3	.6682652	.1896191	.7793778	5.681843	-.006940	.1983538

Elem	Sr4077
Units	ppm
Avg	.1846687
Stddev	.0003334
%RSD	.1805229
#1	.1844333
#2	.1845227
#3	.1850502

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2761.372	66511.61	12785.54	1853.785	4289.926
Stddev	5.226	125.59	44.77	4.863	11.008
%RSD	.1892702	.1888273	.3501457	.2623352	.2565898
#1	2765.364	66489.64	12803.94	1857.183	4297.534
#2	2763.295	66646.74	12818.18	1855.958	4294.940
#3	2755.456	66398.45	12734.50	1848.214	4277.304

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167934BL Acquired: 5/13/2025 14:06:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005578	.0002911	.0016682	.0034173	.0009252	.0001085	.0002832
Stddev	.0007101	.0010867	.0008596	.0029883	.0030588	.0032826	.0005750
%RSD	127.3022	373.3315	51.52527	87.44641	330.6278	3026.396	203.0475
#1	.0005444	.0001299	.0007435	.0054793	-.002597	-.003588	-.000374
#2	-.000146	-.000706	.0024428	.0047822	.002456	.001231	.000693
#3	.001274	.001449	.0018185	-.000010	.002916	.002683	.000531

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000078	.0000228	.0081878	-.000202	.0002992	-.000134	-.001626
Stddev	.000041	.0000789	.0043842	.000523	.0001739	.000164	.001528
%RSD	53.04121	345.7671	53.54588	259.6736	58.11919	123.1180	93.95464
#1	-.000098	.0000050	.0052350	-.000632	.0003517	-.000227	-.001084
#2	-.000105	.0001091	.0061030	.000381	.0004408	.000056	-.000443
#3	-.000030	-.000046	.0132254	-.000354	.0001051	-.000230	-.003351

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004621	.0066376	-.000164	-.000171	-.351507	-.001987	.0001165
Stddev	.0001897	.0083857	.000221	.000355	.004108	.000833	.0002352
%RSD	41.05797	126.3365	134.5099	207.6887	1.168726	41.89763	201.8317
#1	.0002480	.0115211	-.000236	-.000023	-.347680	-.002612	.0002241
#2	.0006093	.0114368	-.000340	-.000577	-.350991	-.001042	-.000153
#3	.0005289	-.003045	.000084	.000086	-.355848	-.002308	.000279

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.094993	-.008631	-.000044	-.000074	.0006060	.0075390	.0029308
Stddev	.010129	.000110	.000111	.000481	.0004809	.0038298	.0006411
%RSD	10.66252	1.276997	250.1484	648.5153	79.36338	50.79947	21.87566
#1	-.106664	-.008594	-.000172	-.000549	.0010542	.0034974	.0036707
#2	-.088504	-.008544	.000023	.000413	.0000979	.0111142	.0025829
#3	-.089811	-.008755	.000016	-.000086	.0006660	.0080053	.0025388

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167934BL Acquired: 5/13/2025 14:06:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001442	-.000972	.0000191
Stddev	.003050	.001236	.0000660
%RSD	211.5294	127.0794	345.7843
#1	.000949	-.002356	.0000261
#2	-.004876	-.000583	.0000813
#3	-.000398	.000021	-.000050

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2807.747	66104.45	13296.31	1844.926	4407.945
Stddev	3.448	269.08	42.60	16.117	4.041
%RSD	.1227896	.4070465	.3204234	.8735863	.0916649
#1	2804.855	65794.51	13333.39	1826.695	4403.306
#2	2806.824	66278.29	13249.77	1857.279	4409.840
#3	2811.562	66240.54	13305.78	1850.804	4410.691

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167934BS Acquired: 5/13/2025 14:11:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7736281	1.894508	.9471610	1.937542	.7901065	1.867605
Stddev	.0015654	.038933	.0020165	.005217	.0020380	.010597
%RSD	.2023456	2.055042	.2128985	.2692627	.2579336	.5674378
#1	.7738002	1.860331	.9483522	1.932078	.7922482	1.872593
#2	.7751004	1.886305	.9448328	1.938078	.7881912	1.855434
#3	.7719838	1.936889	.9482981	1.942471	.7898801	1.874789

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1790013	.1942568	.1939981	.9683221	.3871462	.1885812
Stddev	.0022649	.0017177	.0002718	.0163297	.0013200	.0003290
%RSD	1.265314	.8842180	.1401131	1.686393	.3409446	.1744724
#1	.1814041	.1959821	.1942237	.9871572	.3876522	.1889561
#2	.1769056	.1925469	.1936963	.9596714	.3856481	.1883409
#3	.1786940	.1942413	.1940743	.9581377	.3881383	.1884464

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2959654	2.787520	.1888670	1.852041	.4767936	.0710939
Stddev	.0007943	.008883	.0006974	.021122	.0004194	.0000353
%RSD	.2683749	.3186744	.3692782	1.140485	.0879682	.0496370
#1	.2967612	2.786863	.1894559	1.870727	.4771888	.0710532
#2	.2959622	2.778984	.1880968	1.829123	.4763535	.0711134
#3	.2951726	2.796714	.1890484	1.856273	.4768386	.0711152

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.869423	.2781433	.1943204	8.899971	.2831377	.4009435
Stddev	.019485	.0020176	.0012060	.031960	.0028594	.0003024
%RSD	.6790456	.7253876	.6206249	.3591074	1.009899	.0754285
#1	2.851289	.2800821	.1955720	8.886548	.2861759	.4008073
#2	2.866955	.2782925	.1942233	8.876911	.2804992	.4007332
#3	2.890024	.2760552	.1931659	8.936454	.2827378	.4012901

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167934BS Acquired: 5/13/2025 14:11:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6796814	.1927048	.8044259	5.685925	F -.008528	.1984928
Stddev	.0010551	.0021585	.0091161	.028312	.004383	.0005454
%RSD	.1552267	1.120128	1.133243	.4979297	51.39551	.2747957
#1	.6802283	.1927040	.7942107	5.668625	-.008397	.1989063
#2	.6784652	.1905467	.8117337	5.670552	-.004212	.1978746
#3	.6803507	.1948638	.8073333	5.718598	-.012975	.1986974

Elem	Sr4077
Units	ppm
Avg	.1859132
Stddev	.0012678
%RSD	.6819283
#1	.1868018
#2	.1844614
#3	.1864763

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2767.052	66833.87	12864.87	1847.724	4307.790
Stddev	9.810	197.26	134.49	4.013	10.353
%RSD	.3545113	.2951557	1.045431	.2172072	.2403326
#1	2758.193	66753.86	12750.21	1850.674	4299.538
#2	2765.368	67058.57	13012.91	1849.343	4304.426
#3	2777.594	66689.19	12831.49	1843.153	4319.407

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167918BL Acquired: 5/13/2025 14:27:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001300	-.001022	-.000097	.0013808	.0000236	.0090282	-.000931
Stddev	.001397	.000655	.000284	.0042131	.0015202	.0030452	.001190
%RSD	107.4649	64.05964	290.9137	305.1193	6443.801	33.73005	127.7303
#1	-.001245	-.001432	-.000098	.0020671	.0010273	.0061306	.000373
#2	-.002723	-.001366	.000187	.0052087	-.001725	.0087519	-.001956
#3	.000069	-.000267	-.000381	-.003133	.000769	.0122022	-.001212

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000038	.0000405	.0000532	-.000256	.0002818	-.000343	.0014669
Stddev	.000051	.0000224	.0026637	.000118	.0001502	.000234	.0023689
%RSD	132.4784	55.20016	5006.869	46.21739	53.29320	68.05953	161.4869
#1	-.000091	.0000655	-.002246	-.000313	.0003256	-.000134	.0000570
#2	.000010	.0000337	-.000566	-.000335	.0001146	-.000301	.0001420
#3	-.000034	.0000224	.002972	-.000120	.0004051	-.000595	.0042018

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000075	-.002406	.0000359	-.000115	-.314850	-.001224	.0003336
Stddev	.000352	.005296	.0004262	.000550	.005946	.000829	.0001581
%RSD	467.5930	220.1517	1186.676	478.1930	1.888585	67.68325	47.38432
#1	-.000321	-.007460	-.000449	.000099	-.320225	-.002174	.0001528
#2	.000328	-.002860	.000349	-.000740	-.315863	-.000645	.0004028
#3	-.000233	.003103	.000208	.000296	-.308463	-.000854	.0004454

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.087935	-.009562	-.000003	-.000386	.0011109	-.001464	-.001483
Stddev	.004264	.000632	.000160	.000796	.0005338	.005689	.001187
%RSD	4.849154	6.605735	6033.725	206.1562	48.05457	388.4388	80.05095
#1	-.083013	-.008954	.000128	-.000826	.0005031	.004895	-.000122
#2	-.090303	-.009516	.000045	.000533	.0013256	-.006069	-.002023
#3	-.090490	-.010215	-.000181	-.000866	.0015039	-.003219	-.002303

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167918BL Acquired: 5/13/2025 14:27:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002669	-.001116	-.000054
Stddev	.001657	.000403	.000040
%RSD	62.07202	36.08513	73.99185
#1	-.002083	-.000760	-.000040
#2	-.001385	-.001553	-.000023
#3	-.004539	-.001035	-.000099

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2775.781	65938.49	12279.38	1850.225	4324.490
Stddev	22.559	114.24	73.29	1.299	24.907
%RSD	.8127091	.1732597	.5968788	.0702347	.5759555
#1	2749.801	65806.98	12230.32	1851.451	4295.806
#2	2787.125	66013.16	12363.63	1848.863	4340.648
#3	2790.416	65995.34	12244.19	1850.362	4337.016

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167918BS Acquired: 5/13/2025 14:31:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7556347	1.913587	.9354555	1.906102	.7676924	1.863272
Stddev	.0044280	.061952	.0031708	.009807	.0037908	.006574
%RSD	.5859960	3.237491	.3389584	.5144978	.4937908	.3528107
#1	.7505766	1.981038	.9353531	1.905988	.7652827	1.866010
#2	.7575171	1.859225	.9323372	1.896352	.7657326	1.855771
#3	.7588105	1.900499	.9386763	1.915964	.7720620	1.868034

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1772797	.1968722	.1910139	.9557637	.3764936	.1859118
Stddev	.0006914	.0004429	.0003532	.0057043	.0006330	.0002773
%RSD	.3900010	.2249832	.1849009	.5968292	.1681209	.1491625
#1	.1778577	.1966764	.1906437	.9590295	.3760837	.1855977
#2	.1765138	.1965609	.1910509	.9491770	.3772226	.1860150
#3	.1774676	.1973793	.1913472	.9590846	.3761745	.1861227

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2908291	2.562041	.1898003	1.859032	.4690848	.0687330
Stddev	.0014302	.003248	.0015194	.014037	.0011244	.0003074
%RSD	.4917664	.1267858	.8005255	.7550919	.2397115	.4472752
#1	.2896537	2.560939	.1896460	1.850639	.4684505	.0683925
#2	.2904122	2.565696	.1883640	1.851219	.4684209	.0688160
#3	.2924214	2.559486	.1913910	1.875237	.4703831	.0689903

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.612262	.2771499	.1880695	8.260549	.2877186	.3934688
Stddev	.002296	.0016449	.0020918	.017550	.0016431	.0011151
%RSD	.0878752	.5934989	1.112227	.2124556	.5710912	.2834117
#1	2.611094	.2767859	.1883993	8.241081	.2885168	.3943974
#2	2.610786	.2757174	.1899767	8.265410	.2858288	.3922320
#3	2.614907	.2789462	.1858324	8.275157	.2888100	.3937771

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167918BS Acquired: 5/13/2025 14:31:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6638851	.1883658	F .7373831	5.504235	F -.015156	.1950379
Stddev	.0012410	.0014126	.0066659	.011623	.002559	.0011255
%RSD	.1869355	.7499046	.9039940	.2111648	16.88327	.5770645
#1	.6652638	.1874700	.7304236	5.491671	-.012213	.1962532
#2	.6635342	.1876333	.7380152	5.506430	-.016852	.1940316
#3	.6628572	.1899942	.7437104	5.514604	-.016404	.1948288

Elem	Sr4077
Units	ppm
Avg	.1842361
Stddev	.0004384
%RSD	.2379752
#1	.1845641
#2	.1837381
#3	.1844061

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2798.172	70342.95	12518.65	1906.202	4374.114
Stddev	8.681	123.82	56.47	3.956	10.066
%RSD	.3102379	.1760256	.4510601	.2075244	.2301255
#1	2807.858	70242.38	12504.14	1907.828	4385.222
#2	2795.564	70481.24	12580.96	1901.693	4371.523
#3	2791.093	70305.22	12470.85	1909.087	4365.597

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167930BL Acquired: 5/13/2025 14:35:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004989	-.000510	.0012546	.0027738	.0008358	.0001104	.0001937
Stddev	.0002888	.001303	.0013713	.0033370	.0017941	.0053049	.0006393
%RSD	57.88211	255.4651	109.3003	120.3049	214.6432	4804.097	330.0047
#1	.0004425	.000456	.0020045	.0002310	.0017407	.0040593	.0001398
#2	.0002425	.000005	-.000328	.0065524	.0019973	-.005919	.0008583
#3	.0008117	-.001991	.002087	.0015379	-.001230	.002191	-.000417

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000009	.0000873	-.000202	-.000556	.0003306	-.000022	.0033005
Stddev	.000027	.0001161	.005275	.000051	.0001252	.000372	.0026298
%RSD	299.4001	133.0648	2612.921	9.166864	37.87370	1721.416	79.67990
#1	-.000036	.0001239	.005540	-.000533	.0003493	-.000442	.0004428
#2	-.000009	-.000043	-.001312	-.000520	.0004454	.000265	.0038400
#3	.000018	.000181	-.004833	-.000614	.0001971	.000112	.0056187

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004948	.0046104	.0001725	.0001027	-.372176	-.001003	.0000983
Stddev	.0003017	.0152432	.0003865	.0002647	.004780	.000872	.0001648
%RSD	60.96190	330.6285	223.9842	257.7185	1.284417	86.98482	167.6678
#1	.0004637	.0192002	-.000175	.0002443	-.377298	-.000102	-.000090
#2	.0002100	.0058423	.000589	.0002664	-.367833	-.001063	.000168
#3	.0008109	-.011211	.000103	-.000203	-.371397	-.001843	.000217

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.077911	-.010308	.0000492	-.000119	.0009453	.0019537	.0008203
Stddev	.008184	.000544	.0001790	.000272	.0002437	.0044296	.0026477
%RSD	10.50432	5.276072	363.5021	228.5488	25.77522	226.7282	322.7633
#1	-.073915	-.010053	.0001732	.000120	.0006814	-.003073	.0019703
#2	-.087326	-.010932	-.000156	-.000415	.0011618	.003649	-.002208
#3	-.072493	-.009938	.000131	-.000062	.0009926	.005285	.002699

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167930BL Acquired: 5/13/2025 14:35:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000339	-.002127	-.000033
Stddev	.004777	.000705	.000084
%RSD	1410.898	33.14383	256.3138
#1	-.005706	-.002526	-.000030
#2	.001242	-.001313	-.000118
#3	.003448	-.002541	.000050

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2857.625	69613.56	12367.99	1907.282	4488.068
Stddev	1.477	123.61	66.41	3.020	1.100
%RSD	.0516951	.1775602	.5369193	.1583188	.0244994
#1	2856.108	69667.72	12291.93	1910.717	4487.874
#2	2859.059	69700.84	12397.61	1906.080	4489.252
#3	2857.708	69472.12	12414.44	1905.048	4487.079

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV02 Acquired: 5/13/2025 14:52:02 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.787668	5.086728	4.804312	4.798720	4.808325	9.683472	9.616741
Stddev	.011143	.040975	.015665	.010558	.008221	.035320	.077004
%RSD	.2327461	.8055191	.3260716	.2200219	.1709659	.3647452	.8007265
#1	4.775766	5.039421	4.791872	4.789696	4.798834	9.723895	9.644368
#2	4.789384	5.111090	4.799160	4.796133	4.813207	9.667950	9.529736
#3	4.797853	5.109671	4.821905	4.810332	4.812933	9.658571	9.676121

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2406638	2.400036	24.06930	.9689817	2.396950	1.210147	4.691967
Stddev	.0018262	.006352	.08550	.0035516	.008701	.003162	.002670
%RSD	.7588198	.2646675	.3552323	.3665293	.3630022	.2612862	.0569089
#1	.2427671	2.395550	24.16484	.9726252	2.390382	1.209260	4.689247
#2	.2397422	2.397254	24.04308	.9687901	2.393649	1.207523	4.692070
#3	.2394820	2.407305	23.99997	.9655298	2.406818	1.213658	4.694584

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.405149	24.00649	2.399430	1.184352	23.38036	2.405413	2.394391
Stddev	.006004	.02719	.005516	.002828	.06865	.008149	.010271
%RSD	.2496134	.1132478	.2299077	.2387562	.2936295	.3387841	.4289609
#1	2.412042	24.03779	2.395746	1.187107	23.34800	2.414669	2.387761
#2	2.401067	23.98878	2.396772	1.181456	23.45921	2.402254	2.389190
#3	2.402338	23.99289	2.405773	1.184492	23.33386	2.399317	2.406222

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.52462	4.803027	4.906364	4.820235	4.814446	4.635289	4.681984
Stddev	.05916	.036334	.015598	.015998	.013429	.018025	.014097
%RSD	.2514673	.7564791	.3179213	.3318985	.2789338	.3888563	.3010969
#1	23.47187	4.844967	4.891441	4.804463	4.828246	4.619382	4.665748
#2	23.58858	4.781074	4.905092	4.819790	4.813672	4.654866	4.691117
#3	23.51342	4.783041	4.922560	4.836450	4.801421	4.631620	4.689086

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV02 Acquired: 5/13/2025 14:52:02 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.676400	4.834096	4.876806
Stddev	.013273	.022276	.021277
%RSD	.2838388	.4608026	.4362850
#1	4.663149	4.853392	4.853454
#2	4.676357	4.839178	4.895093
#3	4.689695	4.809719	4.881871

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2786.389	68270.06	13008.23	1851.414	4209.074
Stddev	4.471	85.85	76.62	10.945	7.950
%RSD	.1604491	.1257494	.5890192	.5911696	.1888759
#1	2784.460	68197.90	12921.07	1857.631	4208.179
#2	2791.501	68365.00	13064.99	1857.835	4217.433
#3	2783.207	68247.27	13038.62	1838.777	4201.609

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB02 Acquired: 5/13/2025 14:56:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000999	-.000016	-.000912	.0009742	.0001870	.0165431	-.002563
Stddev	.001197	.002029	.000849	.0050625	.0038174	.0044357	.000770
%RSD	119.9071	12815.50	93.07762	519.6612	2041.539	26.81288	30.02153
#1	-.001370	-.000589	-.001574	-.004003	.0026151	.0137335	-.002156
#2	.000341	-.001697	.000045	.000807	.0021589	.0216566	-.002083
#3	-.001966	.002239	-.001209	.006118	-.004213	.0142391	-.003451

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000057	.0001330	.0047106	-.000355	.0002962	-.000119	.0036989
Stddev	.000124	.0000587	.0080345	.000122	.0002491	.000369	.0032044
%RSD	216.5576	44.12933	170.5632	34.23669	84.08378	311.2305	86.62898
#1	.000053	.0000829	.0113624	-.000260	.0004532	-.000222	.0015581
#2	-.000034	.0001184	-.004216	-.000492	.0004265	-.000425	.0021559
#3	-.000191	.0001975	.006985	-.000314	.0000090	.000291	.0073829

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000727	.0084278	.0001326	-.000020	-.084667	-.001488	.0007442
Stddev	.0002988	.0200466	.0002253	.000166	.005182	.001544	.0001742
%RSD	411.0994	237.8626	169.8245	825.9636	6.120482	103.7873	23.41287
#1	-.000204	.0259663	.0000924	-.000084	-.089428	.000295	.0005453
#2	.000032	.0127418	.0003753	-.000145	-.079148	-.002349	.0008701
#3	.000390	-.013425	-.000070	.000168	-.085427	-.002409	.0008171

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.034215	.0022467	.0004837	-.000794	.0011395	.0023574	.0025425
Stddev	.042281	.0012131	.0000423	.000672	.0003372	.0039546	.0023027
%RSD	123.5756	53.99385	8.743776	84.63242	29.58880	167.7558	90.56933
#1	-.054587	.0036347	.0005326	-.001364	.0015286	.0065602	-.000023
#2	-.062453	.0013893	.0004597	-.000965	.0009325	.0018022	.004430
#3	.014396	.0017161	.0004589	-.000053	.0009575	-.001290	.003220

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB02 Acquired: 5/13/2025 14:56:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004432	-.002001	.0001201
Stddev	.002196	.000714	.0000193
%RSD	49.56293	35.68064	16.02995
#1	-.006937	-.001991	.0001116
#2	-.003520	-.002719	.0001066
#3	-.002838	-.001292	.0001421

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2847.581	67036.27	12901.88	1877.910	4452.923
Stddev	4.458	265.38	46.33	8.712	10.763
%RSD	.1565433	.3958722	.3590596	.4639122	.2417042
#1	2845.927	67340.56	12923.71	1885.318	4455.398
#2	2852.629	66852.80	12848.67	1868.312	4462.233
#3	2844.186	66915.45	12933.25	1880.101	4441.138

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167930BS Acquired: 5/13/2025 15:00:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7628669	2.010919	.9379549	1.917771	.7846057	1.838792
Stddev	.0117672	.041861	.0102939	.019112	.0091743	.002592
%RSD	1.542495	2.081661	1.097487	.9965618	1.169283	.1409627
#1	.7579849	2.002896	.9313071	1.911271	.7809637	1.836276
#2	.7543265	1.973650	.9327454	1.902758	.7778117	1.841454
#3	.7762893	2.056210	.9498123	1.939285	.7950418	1.838648

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1780831	.1867442	.1913380	.9464045	.3845692	.1857071
Stddev	.0005600	.0006599	.0019526	.0128389	.0006495	.0021146
%RSD	.3144597	.3533531	1.020494	1.356602	.1688886	1.138650
#1	.1778947	.1860634	.1901513	.9481485	.3838583	.1842850
#2	.1776415	.1867881	.1902712	.9582823	.3847177	.1846993
#3	.1787129	.1873810	.1935916	.9327827	.3851315	.1881371

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2922994	2.848909	.1875482	1.825935	.4691079	.0708092
Stddev	.0032725	.005561	.0012726	.016900	.0042064	.0005489
%RSD	1.119564	.1951936	.6785485	.9255482	.8966729	.7752331
#1	.2908951	2.843186	.1865778	1.836946	.4661542	.0705178
#2	.2899635	2.849249	.1889890	1.806477	.4672456	.0704674
#3	.2960397	2.854292	.1870776	1.834383	.4739240	.0714424

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.928906	.2740194	.1939236	9.277870	.2786447	.4023874
Stddev	.014248	.0005835	.0005713	.053777	.0003695	.0056655
%RSD	.4864509	.2129600	.2946212	.5796295	.1325966	1.407968
#1	2.925407	.2737441	.1935414	9.304782	.2786865	.3989444
#2	2.916733	.2736244	.1945804	9.312878	.2782561	.3992917
#3	2.944577	.2746896	.1936489	9.215949	.2789915	.4089263

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167930BS Acquired: 5/13/2025 15:00:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6746867	.1925317	.8333711	5.473221	F -.010142	.1933946
Stddev	.0071076	.0009988	.0076558	.071705	.002912	.0016303
%RSD	1.053471	.5187569	.9186582	1.310102	28.71257	.8429781
#1	.6696946	.1913914	.8254059	5.419445	-.010857	.1948938
#2	.6715413	.1932513	.8340327	5.445587	-.006939	.1936311
#3	.6828244	.1929524	.8406746	5.554631	-.012629	.1916590

Elem	Sr4077
Units	ppm
Avg	.1856202
Stddev	.0003152
%RSD	.1698150
#1	.1858873
#2	.1857008
#3	.1852725

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.380	67116.47	13461.38	1868.239	4441.304
Stddev	24.218	244.22	48.38	8.889	38.006
%RSD	.8532442	.3638800	.3593659	.4757917	.8557357
#1	2855.022	67126.41	13488.96	1861.365	4468.228
#2	2849.523	67355.57	13489.67	1878.277	4457.855
#3	2810.596	66867.43	13405.53	1865.075	4397.829

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-01DLX5 Acquired: 5/13/2025 15:04:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006806	-.002167	-.006970	.0059279	.0087431	.8685075	.0234500
Stddev	.003601	.002172	.002085	.0026553	.0028825	.0044340	.0006722
%RSD	52.91487	100.2431	29.91010	44.79270	32.96850	.5105336	2.866295
#1	-.002813	-.004494	-.009174	.0089939	.0116037	.8637523	.0237487
#2	-.007798	-.001812	-.005029	.0043965	.0087862	.8725287	.0239210
#3	-.009808	-.000194	-.006707	.0043933	.0058393	.8692415	.0226803

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000018	.0007919	69.65749	.0030648	.0274567	2.463166	.0859492
Stddev	.0000510	.0001183	.01468	.0000314	.0006894	.011257	.0027589
%RSD	2828.813	14.93658	.0210762	1.025288	2.510867	.4569992	3.209951
#1	.0000199	.0009016	69.66533	.0030285	.0270906	2.459812	.0828118
#2	.0000413	.0006666	69.64055	.0030837	.0270276	2.453968	.0879967
#3	-.000056	.0008076	69.66658	.0030821	.0282519	2.475719	.0870391

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3644048	18.91143	1.497318	.0029213	^ *****	.0002156	8.900034
Stddev	.0022800	.07063	.006894	.0003598	-----	.0002595	.031760
%RSD	.6256894	.3734752	.4603983	12.31734	-----	120.4148	.3568476
#1	.3648500	18.83096	1.491561	.0025963	^ -----	.0004945	8.866710
#2	.3619350	18.94019	1.504957	.0033080	^ -----	.0001709	8.929955
#3	.3664294	18.96315	1.495437	.0028597	^ -----	-.000019	8.903436

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.17637	.0737578	-.000309	-.003908	-.003200	1.060928	.0140385
Stddev	.21370	.0008292	.000249	.001381	.001292	.007717	.0034983
%RSD	.6252998	1.124175	80.64936	35.32588	40.37516	.7273767	24.91947
#1	34.05867	.0740133	-.000145	-.002610	-.001736	1.052224	.0173592
#2	34.04739	.0744292	-.000595	-.003756	-.004180	1.063626	.0143702
#3	34.42305	.0728310	-.000186	-.005359	-.003684	1.066933	.0103862

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-01DLX5 Acquired: 5/13/2025 15:04:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.009318	.0091992	.2108969
Stddev	.010191	.0013835	.0005899
%RSD	.2541936	15.03915	.2796933
#1	4.020649	.0077234	.2110965
#2	4.000901	.0104668	.2102332
#3	4.006402	.0094074	.2113611

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2070.708	48512.10	11133.07	1346.726	2722.732
Stddev	33.360	52.61	22.85	5.169	31.253
%RSD	1.611051	.1084440	.2052317	.3838387	1.147838
#1	2064.005	48541.47	11141.11	1352.661	2718.399
#2	2106.911	48543.47	11107.29	1344.308	2755.925
#3	2041.209	48451.37	11150.82	1343.208	2693.872

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-02 Acquired: 5/13/2025 15:08:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006881	-.021845	-.004017	-.021800	.0086395	.1257682
Stddev	.011068	.006863	.007381	.005964	.0049062	.0016046
%RSD	160.8434	31.41631	183.7532	27.35996	56.78789	1.275823
#1	.005813	-.029518	-.006757	-.023557	.0087557	.1256406
#2	-.011945	-.016295	.004342	-.015154	.0036762	.1274327
#3	-.014511	-.019721	-.009636	-.026688	.0134866	.1242312

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0762951	.0002994	.0003822	108.8296	.0410610	.0013067
Stddev	.0012961	.0000180	.0001512	1.1850	.0007932	.0009111
%RSD	1.698734	6.002749	39.56384	1.088862	1.931795	69.72846
#1	.0752915	.0002788	.0003651	108.1253	.0404405	.0021917
#2	.0777583	.0003121	.0002402	108.1657	.0419547	.0003715
#3	.0758355	.0003073	.0005412	110.1977	.0407878	.0013569

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3093919	1.833831	.0610373	33.54618	.1479339	.0436955
Stddev	.0160216	.028296	.0000249	.40162	.0064559	.0012520
%RSD	5.178428	1.542983	.0407693	1.197205	4.364014	2.865283
#1	.2918169	1.803400	.0610609	33.40346	.1410388	.0451193
#2	.3131764	1.859348	.0610397	33.23541	.1489275	.0427666
#3	.3231825	1.838746	.0610113	33.99966	.1538352	.0432006

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^ *****	.0021803	.2649173	361.1572	.3690352	.0080028
Stddev	-----	.0024797	.0038719	13.5601	.0019496	.0008930
%RSD	-----	113.7314	1.461536	3.754633	.5282863	11.15819
#1	^ -----	.0018519	.2672332	345.6547	.3694751	.0081322
#2	^ -----	.0048078	.2670713	367.0030	.3669033	.0070523
#3	^ -----	-.000119	.2604475	370.8139	.3707273	.0088241

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-02 Acquired: 5/13/2025 15:08:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1562945	.0061950	F 55.28533	.9134456	F 26.35594	.7560383
Stddev	.0036431	.0002425	1.00755	.0171995	.18700	.0079091
%RSD	2.330922	3.914987	1.822451	1.882923	.7095145	1.046127
#1	.1558113	.0064442	54.23894	.9136809	26.35866	.7535540
#2	.1529171	.0059597	56.24893	.8961297	26.16760	.7648914
#3	.1601550	.0061812	55.36811	.9305262	26.54157	.7496696

Elem	Sr4077
Units	ppm
Avg	.4806096
Stddev	.0020851
%RSD	.4338529
#1	.4784129
#2	.4825615
#3	.4808542

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	947.1191	23607.61	7834.729	577.6122	1056.868
Stddev	49.9520	78.91	47.191	9.1858	56.962
%RSD	5.274096	.3342523	.6023315	1.590305	5.389747
#1	889.8808	23698.72	7837.614	573.7786	991.212
#2	981.9051	23561.52	7880.412	570.9641	1093.113
#3	969.5715	23562.58	7786.162	588.0938	1086.279

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-03DLX5 Acquired: 5/13/2025 15:19:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0159325	.0079524	-.034160	-.017635	-.021977	23.18840
Stddev	.0046195	.0008405	.002031	.001584	.001955	.04089
%RSD	28.99399	10.56941	5.944695	8.979759	8.895802	.1763407
#1	.0105984	.0073963	-.032259	-.015955	-.020539	23.23551
#2	.0186026	.0075416	-.036299	-.017850	-.021190	23.16761
#3	.0185966	.0089193	-.033923	-.019100	-.024203	23.16208

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3302121	.0016140	.0011942	131.7688	6.125869	.0548393
Stddev	.0005052	.0000687	.0003132	.1676	.036648	.0006045
%RSD	.1529790	4.259117	26.22520	.1271657	.5982542	1.102383
#1	.3297230	.0016881	.0011714	131.5975	6.093122	.0545214
#2	.3307319	.0016019	.0008931	131.9323	6.165455	.0555364
#3	.3301814	.0015522	.0015182	131.7768	6.119031	.0544600

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.31691	107.1662	.8951853	36.35017	1.964943	.0146923
Stddev	.44045	.8641	.0008501	.01745	.021295	.0005585
%RSD	.8753467	.8063505	.0949613	.0480099	1.083732	3.801499
#1	50.44936	108.1069	.8944903	36.33635	1.944193	.0150741
#2	49.82543	106.4078	.8961331	36.36978	1.986744	.0140513
#3	50.67593	106.9838	.8949324	36.34436	1.963892	.0149516

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	479.3082	.0026993	F 25.25400	44.20158	.1029288	-.000444
Stddev	3.4806	.0009478	.06519	.49076	.0006109	.000194
%RSD	.7261768	35.11222	.2581546	1.110267	.5934655	43.68139
#1	483.1848	.0019544	25.31330	44.69963	.1032397	-.000237
#2	478.2887	.0037661	25.26452	43.71846	.1033216	-.000473
#3	476.4513	.0023774	25.18419	44.18665	.1022250	-.000621

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-03DLX5 Acquired: 5/13/2025 15:19:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033071	.0149691	3.856177	.1303584	5.675499	.0271891
Stddev	.0012950	.0006827	.024496	.0045835	.048962	.0007783
%RSD	39.15894	4.560920	.6352366	3.516069	.8626935	2.862659
#1	.0023592	.0154728	3.880768	.1256269	5.623355	.0274557
#2	.0027795	.0152424	3.831777	.1347780	5.720493	.0277991
#3	.0047827	.0141921	3.855987	.1306703	5.682651	.0263125

Elem	Sr4077
Units	ppm
Avg	.4938320
Stddev	.0008553
%RSD	.1731948
#1	.4931514
#2	.4947921
#3	.4935527

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2517.118	63557.41	13561.44	1693.925	3774.775
Stddev	83.484	576.30	13.24	25.999	83.882
%RSD	3.316635	.9067437	.0976021	1.534821	2.222176
#1	2464.366	62909.75	13560.51	1665.845	3724.611
#2	2613.369	64013.62	13548.69	1717.161	3871.612
#3	2473.620	63748.87	13575.12	1698.769	3728.100

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-04 Acquired: 5/13/2025 15:23:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001821	-.003692	.0013204	.0056372	.0030266	.0174174
Stddev	.001553	.003299	.0014560	.0013697	.0014861	.0043633
%RSD	85.28529	89.36005	110.2716	24.29725	49.10145	25.05135
#1	-.003078	-.000180	-.000243	.0069824	.0030140	.0211803
#2	-.002298	-.004169	.001566	.0056850	.0015469	.0126344
#3	-.000085	-.006727	.002638	.0042443	.0045190	.0184374

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020062	-.000038	.0003592	210.4138	.0337643	.0029400
Stddev	.0004211	.000024	.0001118	.2174	.0002002	.0000789
%RSD	20.98770	63.61910	31.11688	.1033083	.5928912	2.684383
#1	.0022983	-.000034	.0004548	210.4910	.0336731	.0030041
#2	.0015236	-.000016	.0003867	210.1684	.0336260	.0029640
#3	.0021969	-.000064	.0002363	210.5821	.0339939	.0028519

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1745360	.4223849	.0282700	78.57243	.2027654	.0001757
Stddev	.0010204	.0027103	.0007194	.11495	.0008613	.0003119
%RSD	.5846218	.6416764	2.544556	.1462942	.4247537	177.4993
#1	.1753351	.4192816	.0275386	78.43974	.2019371	.0001888
#2	.1748863	.4242871	.0282948	78.63596	.2027029	.0004808
#3	.1733866	.4235862	.0289767	78.64159	.2036562	-.000143

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	592.6468	.0031172	.0631017	6.182839	.1477467	.0624371
Stddev	3.4187	.0016807	.0011282	.025625	.0008944	.0005491
%RSD	.5768611	53.91527	1.787978	.4144553	.6053471	.8795040
#1	595.9892	.0032044	.0643993	6.165032	.1470704	.0629397
#2	592.7949	.0013947	.0625533	6.212208	.1474089	.0618510
#3	589.1565	.0047526	.0623525	6.171276	.1487608	.0625205

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-04 Acquired: 5/13/2025 15:23:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003227	-.003311	F 20.07941	.9553113	F 177.7775	-.026146
Stddev	.001385	.000434	.07392	.0027533	.7141	.000612
%RSD	42.93552	13.10629	.3681593	.2882141	.4016830	2.340336
#1	-.002460	-.003788	20.06601	.9579027	177.7642	-.026558
#2	-.004826	-.002940	20.15911	.9524205	177.0701	-.026436
#3	-.002394	-.003205	20.01309	.9556108	178.4981	-.025442

Elem	Sr4077
Units	ppm
Avg	.5286224
Stddev	.0015202
%RSD	.2875728
#1	.5284340
#2	.5272052
#3	.5302280

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2421.731	60760.90	12949.37	1599.808	3606.761
Stddev	9.435	129.75	59.48	9.989	11.704
%RSD	.3896134	.2135372	.4593376	.6243932	.3244923
#1	2414.598	60864.87	13015.67	1605.856	3598.912
#2	2432.430	60615.50	12931.76	1588.278	3620.213
#3	2418.165	60802.33	12900.69	1605.289	3601.157

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-03DL2X25 Acquired: 5/13/2025 15:28:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001485	.0002573	-.007836	-.004881	-.004561	4.446612	.0535528
Stddev	.002120	.0008982	.000271	.003983	.002381	.015520	.0008983
%RSD	142.8006	349.1260	3.460295	81.60465	52.20889	.3490351	1.677486
#1	-.002951	.0005655	-.007990	-.000287	-.002961	4.431957	.0545838
#2	-.002450	.0009608	-.007995	-.007374	-.007297	4.445007	.0529384
#3	.000946	-.000754	-.007523	-.006982	-.003424	4.462873	.0531362

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005602	.0000447	25.26366	1.198635	.0103056	10.02190	20.45253
Stddev	.0000550	.0001872	.07327	.001989	.0001694	.02243	.04607
%RSD	9.815627	418.8655	.2900344	.1659448	1.643366	.2238502	.2252452
#1	.0005042	-.000111	25.27652	1.198623	.0104973	10.04013	20.44656
#2	.0006141	.000252	25.18481	1.200630	.0101761	10.02873	20.50129
#3	.0005624	-.000007	25.32965	1.196652	.0102435	9.99685	20.40973

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1718905	6.970312	.3920391	.0028025	104.6933	-.000072	6.487811
Stddev	.0006490	.037464	.0004606	.0002687	2.0046	.001628	.023407
%RSD	.3775831	.5374753	.1174972	9.589477	1.914781	2253.021	.3607812
#1	.1711616	6.989047	.3918401	.0025229	106.7881	-.000048	6.477874
#2	.1724058	6.927177	.3925658	.0028256	104.4989	-.001712	6.514547
#3	.1721042	6.994713	.3917115	.0030589	102.7929	.001543	6.471012

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.360883	.0123024	.0005595	.0034392	.0058600	.7589290	.0403760
Stddev	.056743	.0010053	.0001883	.0005085	.0008323	.0050531	.0013665
%RSD	.6786707	8.171703	33.66053	14.78525	14.20267	.6658189	3.384354
#1	8.342948	.0112363	.0006119	.0029780	.0054635	.7586785	.0400042
#2	8.424427	.0124378	.0003505	.0039845	.0053000	.7641027	.0392339
#3	8.315276	.0132332	.0007162	.0033550	.0068163	.7540058	.0418899

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-03DL2X25 Acquired: 5/13/2025 15:28:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.498315	.0078855	.0923718
Stddev	.027687	.0015457	.0003740
%RSD	1.847905	19.60183	.4049053
#1	1.525841	.0079978	.0923989
#2	1.498634	.0093720	.0919850
#3	1.470469	.0062867	.0927316

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2586.438	64712.13	13502.05	1740.441	3966.219
Stddev	7.117	110.88	47.91	7.634	8.318
%RSD	.2751659	.1713428	.3548567	.4386120	.2097328
#1	2578.391	64729.28	13498.86	1742.410	3956.856
#2	2589.020	64593.68	13551.48	1732.015	3969.040
#3	2591.904	64813.44	13455.81	1746.897	3972.759

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05DLX5 Acquired: 5/13/2025 15:44:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010248	-.001964	.0101657	.0062292	.0073594	1.026185	.0282477
Stddev	.002753	.003313	.0024590	.0089420	.0037387	.002591	.0060754
%RSD	26.86530	168.6768	24.18887	143.5495	50.80184	.2525269	21.50746
#1	-.013252	-.000576	.0125793	.0165291	.0031652	1.028319	.0352346
#2	-.007846	.000429	.0102540	.0017058	.0103422	1.026934	.0252998
#3	-.009645	-.005746	.0076637	.0004527	.0085706	1.023301	.0242088

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000071	.0008756	70.47975	.0074468	.0274322	3.007730	.4502578
Stddev	.0000771	.0002114	1.87755	.0007410	.0003736	.005184	.0238884
%RSD	1087.010	24.14930	2.663962	9.950004	1.361916	.1723631	5.305493
#1	-.000028	.0006616	72.61195	.0073589	.0270099	3.008062	.4748661
#2	-.000046	.0010844	69.75349	.0067537	.0275671	3.012740	.4487462
#3	.000096	.0008808	69.07380	.0082278	.0277197	3.002387	.4271611

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3840104	19.14637	1.492410	.0030652	^ *****	-.001084	8.930077
Stddev	.0070489	.74613	.013536	.0001815	-----	.001565	.038283
%RSD	1.835595	3.896984	.9069759	5.922553	-----	144.3326	.4287025
#1	.3920595	20.00626	1.482329	.0031866	^ -----	-.001481	8.941547
#2	.3810328	18.76274	1.507794	.0031524	^ -----	.000641	8.961315
#3	.3789390	18.67009	1.487106	.0028565	^ -----	-.002412	8.887370

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.77028	.0706194	-.000896	.0027855	-.002591	1.089628	.0337186
Stddev	.92929	.0021809	.000259	.0009341	.000420	.039568	.0054726
%RSD	2.396902	3.088278	28.95458	33.53506	16.20749	3.631308	16.23033
#1	38.89407	.0698595	-.001004	.0038240	-.002929	1.115419	.0374766
#2	39.63147	.0689201	-.000600	.0020141	-.002724	1.109394	.0362392
#3	37.78531	.0730786	-.001084	.0025183	-.002121	1.044072	.0274398

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05DLX5 Acquired: 5/13/2025 15:44:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.119072	.0078847	.2172383
Stddev	.034240	.0002659	.0018345
%RSD	.8312461	3.372740	.8444661
#1	4.097536	.0075779	.2152735
#2	4.158554	.0080261	.2189064
#3	4.101127	.0080500	.2175349

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2076.545	49954.03	11426.63	1384.340	2738.478
Stddev	29.364	1070.01	14.03	54.999	29.571
%RSD	1.414081	2.141994	.1227895	3.972917	1.079846
#1	2047.315	49411.33	11416.88	1364.945	2707.616
#2	2106.041	49264.11	11442.72	1341.667	2766.562
#3	2076.281	51186.64	11420.31	1446.409	2741.256

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05DUPDLX5 Acquired: 5/13/2025 15:49:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003908	.0002658	.0064966	.0058957	.0067292	.9274866	.0253483
Stddev	.002845	.0006961	.0032504	.0116022	.0015574	.0073276	.0024064
%RSD	72.79766	261.8334	50.03272	196.7916	23.14328	.7900506	9.493352
#1	-.001695	-.000517	.0058620	-.007301	.0075498	.9320747	.0279251
#2	-.007117	.000815	.0100174	.014494	.0049331	.9313492	.0231594
#3	-.002913	.000499	.0036102	.010493	.0077046	.9190358	.0249604

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000033	.0005677	64.82310	.0062037	.0257072	2.803305	.4366304
Stddev	.000040	.0000749	1.02631	.0004200	.0002132	.008261	.0040015
%RSD	124.3200	13.18918	1.583255	6.769438	.8294416	.2946754	.9164527
#1	-.000078	.0006308	65.92959	.0066872	.0258065	2.803112	.4405321
#2	-.000020	.0005873	63.90232	.0059941	.0258527	2.811660	.4368231
#3	.000000	.0004849	64.63739	.0059299	.0254624	2.795142	.4325361

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3368171	17.50327	1.386838	.0027170	^ *****	-.001823	8.286898
Stddev	.0038185	.34539	.020765	.0003330	-----	.000982	.017324
%RSD	1.133705	1.973284	1.497299	12.25754	-----	53.83674	.2090570
#1	.3410867	17.88828	1.374698	.0023389	^ -----	-.002927	8.275840
#2	.3337289	17.22065	1.410815	.0029667	^ -----	-.001048	8.277990
#3	.3356358	17.40088	1.375001	.0028453	^ -----	-.001495	8.306864

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.25168	.0617252	-.000810	.0029009	-.002186	1.010083	.0296064
Stddev	.23037	.0008508	.000301	.0031563	.000303	.015285	.0058275
%RSD	.6184133	1.378394	37.16306	108.8036	13.87062	1.513194	19.68340
#1	37.25419	.0611913	-.001124	.0064931	-.001909	1.008700	.0341701
#2	37.48078	.0612779	-.000780	.0005719	-.002510	1.026013	.0316070
#3	37.02006	.0627063	-.000525	.0016377	-.002138	.995538	.0230421

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05DUPDLX5 Acquired: 5/13/2025 15:49:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.789799	.0057464	.2006964
Stddev	.024199	.0010528	.0003284
%RSD	.6385356	18.32152	.1636174
#1	3.773403	.0046109	.2003176
#2	3.817593	.0066902	.2008999
#3	3.778402	.0059381	.2008717

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2114.309	49315.40	12012.02	1372.397	2790.152
Stddev	54.407	158.85	56.52	6.339	52.377
%RSD	2.573289	.3221160	.4705644	.4619251	1.877220
#1	2069.631	49157.21	12010.68	1372.133	2744.958
#2	2174.898	49314.07	12069.20	1366.193	2847.556
#3	2098.398	49474.91	11956.17	1378.864	2777.942

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05LDLX25 Acquired: 5/13/2025 15:53:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002604	-.000389	.0019947	.0061063	.0030190	.1985084	-.000304
Stddev	.001415	.001712	.0006749	.0036589	.0022159	.0040912	.000877
%RSD	54.33627	440.6873	33.83402	59.92067	73.39891	2.060992	288.3454
#1	-.002800	.000411	.0021493	.0029748	.0005804	.1987558	.000074
#2	-.003910	.000778	.0012559	.0052159	.0035675	.1942991	-.001306
#3	-.001101	-.002354	.0025789	.0101283	.0049093	.2024703	.000320

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000082	.0002224	14.43502	.0011394	.0056492	.6491700	.0815388
Stddev	.000023	.0000621	.07010	.0001178	.0000740	.0051970	.0046292
%RSD	28.18867	27.90963	.4856066	10.34110	1.309376	.8005649	5.677254
#1	-.000109	.0002934	14.42623	.0010234	.0056982	.6513826	.0778615
#2	-.000071	.0001784	14.50910	.0012590	.0055641	.6528945	.0867371
#3	-.000066	.0001954	14.36973	.0011359	.0056853	.6432328	.0800178

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0767467	3.948765	.2989881	.0005015	1137.026	-.001090	1.724390
Stddev	.0003349	.027101	.0013707	.0001734	14.815	.000832	.006334
%RSD	.4363191	.6863092	.4584465	34.58112	1.302979	76.32616	.3673285
#1	.0768663	3.919996	.2999768	.0003013	1152.957	-.001011	1.727472
#2	.0770053	3.952488	.2995641	.0006008	1134.458	-.000300	1.728594
#3	.0763684	3.973812	.2974234	.0006025	1123.662	-.001957	1.717105

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.925486	.0083843	-.000149	.0040720	.0001775	.2281034	.0032164
Stddev	.053904	.0003407	.000221	.0013108	.0001765	.0090071	.0022691
%RSD	.7783387	4.063447	148.6766	32.19037	99.43714	3.948709	70.54689
#1	6.980352	.0083410	-.000212	.0045731	.0002581	.2385012	.0030290
#2	6.923508	.0087446	.000097	.0025846	-.000025	.2226981	.0055734
#3	6.872599	.0080674	-.000332	.0050583	.000299	.2231108	.0010469

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05LDLX25 Acquired: 5/13/2025 15:53:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7338411	.0031640	.0426286
Stddev	.0061070	.0005789	.0002266
%RSD	.8321969	18.29577	.5314746
#1	.7349328	.0031162	.0427543
#2	.7393286	.0037653	.0427645
#3	.7272618	.0026105	.0423671

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2453.241	58481.92	12056.57	1620.834	3444.063
Stddev	11.787	160.34	26.89	10.299	12.633
%RSD	.4804592	.2741682	.2229935	.6354062	.3667957
#1	2450.253	58379.97	12032.04	1619.556	3442.370
#2	2443.236	58399.06	12052.35	1611.234	3432.362
#3	2466.235	58666.74	12085.31	1631.712	3457.457

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05MSDLX5 Acquired: 5/13/2025 15:57:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1653723	.3441406	.1947450	.4400686	.1705449	1.361762	.0571856
Stddev	.0019046	.0060095	.0037746	.0072589	.0064837	.003041	.0005536
%RSD	1.151725	1.746220	1.938230	1.649493	3.801762	.2232824	.9680793
#1	.1675663	.3378982	.1938159	.4476946	.1777263	1.361425	.0576762
#2	.1641435	.3498863	.1988974	.4392679	.1651214	1.364957	.0565854
#3	.1644070	.3446373	.1915216	.4332432	.1687870	1.358904	.0572951

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0356099	.0398399	66.40542	.0758452	.0630532	2.928748	1.048796
Stddev	.0001919	.0012262	.27625	.0003074	.0009965	.032115	.007875
%RSD	.5390183	3.077889	.4160101	.4052769	1.580461	1.096541	.7508786
#1	.0357376	.0393261	66.46713	.0761963	.0629346	2.965631	1.056648
#2	.0357030	.0412394	66.64559	.0756245	.0641038	2.913641	1.048841
#3	.0353892	.0389541	66.10352	.0757148	.0621213	2.906973	1.040898

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3817913	18.08227	1.507335	.0205199	^ *****	.0517589	8.742788
Stddev	.0009072	.05437	.033377	.0000183	-----	.0018935	.044628
%RSD	.2376249	.3006702	2.214328	.0889777	-----	3.658302	.5104511
#1	.3815934	18.12771	1.501217	.0205395	^ -----	.0531595	8.779525
#2	.3827811	18.09705	1.543348	.0205170	^ -----	.0525127	8.755716
#3	.3809993	18.02204	1.477440	.0205033	^ -----	.0496047	8.693124

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.88726	.1132446	.0728080	.1387900	.0340410	.8515888	1.513982
Stddev	.31958	.0005781	.0007415	.0053254	.0005131	.0123856	.030352
%RSD	.7816147	.5104601	1.018468	3.836989	1.507248	1.454412	2.004752
#1	40.52846	.1134671	.0736640	.1365875	.0334583	.8658546	1.517298
#2	41.14137	.1136783	.0723979	.1448633	.0342399	.8453330	1.542539
#3	40.99194	.1125883	.0723622	.1349192	.0344249	.8435788	1.482108

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05MSDLX5 Acquired: 5/13/2025 15:57:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.924266	.0508659	.2472248
Stddev	.062924	.0011914	.0014993
%RSD	1.603455	2.342233	.6064374
#1	3.940441	.0517875	.2474633
#2	3.977524	.0512897	.2485905
#3	3.854834	.0495206	.2456205

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2090.915	48846.70	11978.06	1331.171	2765.671
Stddev	110.978	117.07	41.59	4.433	109.612
%RSD	5.307644	.2396622	.3472276	.3329854	3.963317
#1	2012.919	48805.14	11930.18	1326.662	2686.607
#2	2217.968	48978.87	11998.79	1335.523	2890.798
#3	2041.858	48756.08	12005.22	1331.327	2719.607

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV03 Acquired: 5/13/2025 16:12:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.952734	4.954217	4.732021	5.058651	5.044686	9.774105	9.459191
Stddev	.015287	.009842	.004959	.006678	.013807	.025240	.022689
%RSD	.3086675	.1986494	.1048004	.1320058	.2736891	.2582353	.2398633
#1	4.949044	4.964249	4.732349	5.052760	5.044335	9.781119	9.441543
#2	4.939629	4.953826	4.736808	5.057286	5.031059	9.746100	9.451245
#3	4.969529	4.944577	4.726906	5.065905	5.058666	9.795097	9.484784

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2437320	2.336387	23.03134	.9555554	2.363816	1.242954	4.699058
Stddev	.0010419	.001214	.05935	.0020505	.000484	.003885	.019317
%RSD	.4274735	.0519473	.2576914	.2145902	.0204716	.3125846	.4110871
#1	.2433892	2.335327	22.97214	.9553138	2.363433	1.242169	4.689207
#2	.2429047	2.336124	23.03103	.9577161	2.364360	1.239521	4.721314
#3	.2449021	2.337711	23.09084	.9536364	2.363656	1.247172	4.686651

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.338340	22.92330	2.364989	1.234905	24.42919	2.363493	2.475756
Stddev	.005606	.09310	.000174	.001914	.19304	.001001	.010084
%RSD	.2397364	.4061261	.0073517	.1549550	.7902172	.0423329	.4073244
#1	2.331915	22.83333	2.365188	1.233738	24.49853	2.364315	2.465059
#2	2.342237	22.91732	2.364867	1.237113	24.57798	2.362379	2.485089
#3	2.340867	23.01924	2.364913	1.233863	24.21105	2.363785	2.477121

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.30215	4.927799	4.954355	4.704079	4.760878	4.996354	4.682181
Stddev	.11730	.032247	.006150	.007966	.004129	.028061	.011446
%RSD	.4826707	.6543871	.1241270	.1693455	.0867237	.5616248	.2444573
#1	24.37655	4.901032	4.955946	4.699546	4.762490	4.987342	4.693727
#2	24.36297	4.918764	4.947567	4.699413	4.763958	5.027814	4.670838
#3	24.16693	4.963599	4.959554	4.713277	4.756187	4.973907	4.681980

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV03 Acquired: 5/13/2025 16:12:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.793501	4.977643	4.836389
Stddev	.004432	.010233	.004314
%RSD	.0924516	.2055824	.0892011
#1	4.796698	4.989421	4.832054
#2	4.788442	4.972579	4.840682
#3	4.795361	4.970929	4.836432

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2732.432	66739.28	13271.69	1786.917	4220.067
Stddev	5.723	174.30	58.27	6.218	5.432
%RSD	.2094349	.2611726	.4390406	.3479551	.1287120
#1	2728.607	66793.16	13327.24	1791.667	4214.515
#2	2739.011	66544.39	13276.77	1779.880	4225.370
#3	2729.679	66880.28	13211.04	1789.205	4220.317

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB03 Acquired: 5/13/2025 16:47:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002884	-.003625	-.000299	.0007149	.0019939	.0010912	-.010687
Stddev	.003071	.002427	.001684	.0018369	.0011142	.0037611	.000531
%RSD	106.4828	66.94971	564.0246	256.9478	55.87965	344.6670	4.968108
#1	-.004763	-.001201	-.000273	.0011205	.0009100	-.003011	-.010148
#2	-.004550	-.003619	-.001996	-.001291	.0031361	.004377	-.011209
#3	.000660	-.006055	.001373	.002315	.0019356	.001908	-.010705

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000226	-.000204	-.003132	-.000912	-.000073	-.000552	-.001308
Stddev	.000099	.000038	.004104	.000206	.000203	.000140	.005739
%RSD	43.89402	18.46247	131.0176	22.54242	276.3215	25.43981	438.7627
#1	-.000254	-.000244	.000734	-.000869	.000094	-.000502	.001027
#2	-.000308	-.000201	-.007438	-.001135	-.000299	-.000710	.002896
#3	-.000116	-.000168	-.002693	-.000731	-.000015	-.000443	-.007847

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000716	-.003764	-.000450	.0001277	-.144070	-.001072	.0003608
Stddev	.000405	.011744	.000063	.0001709	.005444	.000837	.0000266
%RSD	56.55743	311.9935	14.10371	133.8403	3.778878	78.04256	7.375696
#1	-.000523	.008417	-.000512	.0003179	-.137810	-.001680	.0003316
#2	-.000443	-.004694	-.000385	-.000013	-.146708	-.001419	.0003669
#3	-.001181	-.015015	-.000453	.000078	-.147693	-.000118	.0003838

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.012376	-.010029	-.000170	-.000221	.0006651	.0006717	.0023682
Stddev	.021327	.000598	.000144	.000524	.0002205	.0024080	.0018407
%RSD	172.3275	5.960618	84.84896	237.4598	33.14704	358.5021	77.72730
#1	.002374	-.009780	-.000326	.000259	.0006599	-.002075	.0040825
#2	-.002672	-.009596	-.000143	-.000780	.0004474	.001671	.0025990
#3	-.036829	-.010711	-.000041	-.000141	.0008882	.002419	.0004229

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB03 Acquired: 5/13/2025 16:47:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001095	-.004076	-.000001
Stddev	.001213	.000586	.000052
%RSD	110.7801	14.38071	6111.642
#1	-.002311	-.003610	.000059
#2	.000115	-.003883	-.000026
#3	-.001088	-.004734	-.000035

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2887.884	71354.93	14320.44	1902.225	4680.858
Stddev	9.539	168.11	41.02	11.856	9.688
%RSD	.3303170	.2355906	.2864481	.6232898	.2069733
#1	2884.914	71160.90	14357.28	1890.389	4680.490
#2	2898.555	71447.03	14327.81	1902.184	4690.724
#3	2880.183	71456.86	14276.24	1914.101	4671.358

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05MSDDLX5 Acquired: 5/13/2025 16:51:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1671738	.3532993	.1973546	.4440932	.1737329	1.409521	.0601257
Stddev	.0007658	.0101382	.0012626	.0025397	.0035312	.004557	.0006431
%RSD	.4581185	2.869589	.6397887	.5718792	2.032544	.3232892	1.069578
#1	.1663160	.3623785	.1982619	.4470257	.1756751	1.408251	.0606050
#2	.1674164	.3551598	.1978893	.4426534	.1696569	1.405734	.0603771
#3	.1677890	.3423597	.1959126	.4426007	.1758667	1.414578	.0593948

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0373181	.0404881	69.58617	.0798187	.0658245	3.044408	1.098590
Stddev	.0002347	.0003311	.17544	.0002807	.0006514	.011626	.003578
%RSD	.6287771	.8178469	.2521131	.3517017	.9896220	.3818922	.3256619
#1	.0375609	.0407443	69.56590	.0798745	.0657135	3.052820	1.102069
#2	.0373009	.0406058	69.77086	.0800673	.0652357	3.049264	1.094921
#3	.0370926	.0401142	69.42175	.0795142	.0665243	3.031141	1.098778

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3975993	19.06798	1.578186	.0209714	^ *****	.0518000	9.202748
Stddev	.0016926	.02665	.006648	.0005967	-----	.0020101	.012450
%RSD	.4257102	.1397454	.4212233	2.845165	-----	3.880445	.1352830
#1	.3989346	19.05901	1.584869	.0203090	^ -----	.0521609	9.188469
#2	.3981676	19.09795	1.578114	.0214668	^ -----	.0536052	9.208441
#3	.3956956	19.04697	1.571575	.0211382	^ -----	.0496339	9.211333

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.61978	.1212559	.0739848	.1423277	.0338757	.8882409	1.549502
Stddev	.38426	.0005333	.0007880	.0008183	.0003976	.0067823	.015143
%RSD	.9698703	.4398469	1.065139	.5749109	1.173860	.7635636	.9772781
#1	39.32466	.1217104	.0748504	.1427313	.0337295	.8808302	1.549335
#2	39.48041	.1206687	.0737947	.1428658	.0335718	.8897529	1.564729
#3	40.05428	.1213885	.0733091	.1413861	.0343257	.8941396	1.534444

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05MSDDLX5 Acquired: 5/13/2025 16:51:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.040702	.0513509	.2540024
Stddev	.018107	.0003725	.0005986
%RSD	.4481180	.7253763	.2356515
#1	4.052022	.0515484	.2534805
#2	4.050266	.0509213	.2546558
#3	4.019818	.0515831	.2538708

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2042.895	47549.13	11529.23	1319.794	2691.789
Stddev	14.019	48.31	39.15	1.416	13.292
%RSD	.6862123	.1016080	.3395599	.1072955	.4937887
#1	2040.421	47591.11	11528.99	1320.959	2685.568
#2	2030.278	47559.96	11490.20	1320.205	2682.749
#3	2057.986	47496.32	11568.49	1318.218	2707.051

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05ADLX5 Acquired: 5/13/2025 16:56:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1623185	.3469388	.1950316	.4434681	.1761616	1.349900	.0572853
Stddev	.0002538	.0039946	.0032925	.0042293	.0022640	.002878	.0019693
%RSD	.1563837	1.151395	1.688210	.9536908	1.285181	.2131947	3.437788
#1	.1625626	.3515469	.1986086	.4416041	.1783769	1.352736	.0551136
#2	.1620559	.3444595	.1943587	.4404909	.1762562	1.346982	.0577869
#3	.1623371	.3448098	.1921275	.4483092	.1738518	1.349981	.0589552

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0361448	.0396160	66.55027	.0772003	.0635357	2.957554	1.050138
Stddev	.0005788	.0001380	.69790	.0005359	.0005071	.010842	.007484
%RSD	1.601379	.3484388	1.048675	.6941463	.7980796	.3665910	.7126876
#1	.0355769	.0397443	65.83693	.0771248	.0641158	2.965605	1.044788
#2	.0361237	.0396338	66.58228	.0767062	.0633149	2.961830	1.058691
#3	.0367339	.0394700	67.23162	.0777699	.0631766	2.945225	1.046936

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3891651	18.20618	1.517664	.0208311	^ *****	.0523889	8.844606
Stddev	.0027388	.26080	.009703	.0006548	-----	.0020451	.013617
%RSD	.7037616	1.432475	.6393534	3.143557	-----	3.903746	.1539616
#1	.3866329	17.93991	1.525945	.0215765	^ -----	.0509945	8.830855
#2	.3887903	18.21750	1.520061	.0205686	^ -----	.0514354	8.858086
#3	.3920719	18.46114	1.506987	.0203482	^ -----	.0547366	8.844876

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.23776	.1159867	.0735697	.1372999	.0346137	1.153943	1.539864
Stddev	.22506	.0015066	.0008115	.0010144	.0001073	.012010	.009587
%RSD	.5735835	1.298910	1.103060	.7388132	.3099437	1.040777	.6226028
#1	39.49368	.1144381	.0744547	.1365694	.0345450	1.153590	1.550627
#2	39.14894	.1160747	.0728605	.1384581	.0345589	1.142113	1.536727
#3	39.07066	.1174474	.0733939	.1368722	.0347373	1.166125	1.532239

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1967-05ADLX5 Acquired: 5/13/2025 16:56:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.920043	.0512320	.2448693
Stddev	.007240	.0014463	.0002236
%RSD	.1846829	2.823057	.0913052
#1	3.928402	.0510982	.2446925
#2	3.915913	.0527405	.2447948
#3	3.915813	.0498572	.2451206

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2043.742	48268.56	11693.50	1326.989	2708.553
Stddev	7.874	29.69	162.31	4.529	15.612
%RSD	.3852759	.0615049	1.388033	.3412701	.5763948
#1	2038.470	48251.57	11868.15	1326.821	2696.869
#2	2039.963	48302.84	11665.07	1322.548	2702.506
#3	2052.793	48251.27	11547.28	1331.600	2726.284

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167917TB Acquired: 5/13/2025 17:09:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005040	-.005412	-.001667	.0050096	.0011511	.0072098	-.013948
Stddev	.002014	.001782	.002453	.0006221	.0004753	.0018045	.000279
%RSD	39.95882	32.92177	147.1419	12.41838	41.28682	25.02874	2.003299
#1	-.002844	-.003430	.001157	.0043170	.0014557	.0077879	-.014255
#2	-.006800	-.006880	-.003265	.0055209	.0013942	.0051871	-.013880
#3	-.005477	-.005927	-.002893	.0051909	.0006035	.0086544	-.013708

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000261	-.000211	.0172175	-.000102	.0001125	.0000630	.0095021
Stddev	.000047	.000055	.0067379	.000234	.0001380	.0002112	.0021358
%RSD	18.01696	26.17554	39.13373	229.8483	122.7045	335.2717	22.47698
#1	-.000283	-.000275	.0233562	-.000261	.0002550	.0000594	.0083704
#2	-.000292	-.000182	.0182879	-.000211	.0001031	.0002760	.0119656
#3	-.000207	-.000177	.0100086	.000167	-.000021	-.000146	.0081703

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015936	.0040305	.0007065	.0001268	392.3196	-.000688	.0032512
Stddev	.0001898	.0081381	.0003060	.0003071	4.9961	.000925	.0004154
%RSD	11.90884	201.9098	43.31396	242.2074	1.273471	134.4482	12.77527
#1	.0014830	-.004825	.0009534	-.000030	386.8739	-.000661	.0033268
#2	.0018127	.011181	.0008018	-.000070	393.3936	.000223	.0036236
#3	.0014850	.005736	.0003641	.000481	396.6913	-.001625	.0028033

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1764412	-.009648	.0000064	.0014275	.0010739	.0169851	.0068671
Stddev	.0342895	.000640	.0001533	.0006657	.0001313	.0066001	.0015090
%RSD	19.43398	6.632302	2404.588	46.63464	12.22226	38.85799	21.97403
#1	.1379796	-.010234	-.000121	.0021465	.0009385	.0245853	.0084810
#2	.2038147	-.008965	.000177	.0008324	.0010827	.0136726	.0054914
#3	.1875292	-.009744	-.000037	.0013037	.0012006	.0126973	.0066290

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167917TB Acquired: 5/13/2025 17:09:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0312467	-.002347	.0000200
Stddev	.0042655	.001230	.0000233
%RSD	13.65114	52.40063	116.1998
#1	.0360204	-.003751	.0000083
#2	.0278092	-.001827	.0000468
#3	.0299106	-.001462	.0000050

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2616.158	66004.21	13721.64	1730.664	4026.624
Stddev	8.417	142.80	27.15	12.739	7.249
%RSD	.3217357	.2163564	.1978266	.7360867	.1800249
#1	2606.539	66084.03	13701.26	1732.236	4023.389
#2	2622.172	66089.26	13711.19	1742.544	4034.927
#3	2619.764	65839.34	13752.45	1717.212	4021.556

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-06 Acquired: 5/13/2025 17:14:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002348	-.003790	.0015547	.0039314	.0007146	.0919282	.0511413
Stddev	.003205	.000915	.0006138	.0023007	.0026255	.0027875	.0002244
%RSD	136.4871	24.15097	39.48358	58.52006	367.3881	3.032246	.4388345
#1	-.004595	-.004072	.0021958	.0049402	-.001200	.0947299	.0513011
#2	-.003771	-.004532	.0009724	.0055554	.003708	.0918996	.0508847
#3	.001322	-.002767	.0014957	.0012987	-.000364	.0891552	.0512381

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000214	-.000125	3.384902	.0074300	.0000379	.0032314	.0911755
Stddev	.000067	.000090	.014855	.0001704	.0002295	.0000250	.0028731
%RSD	31.39992	72.44577	.4388519	2.293352	605.8576	.7721818	3.151146
#1	-.000182	-.000199	3.394598	.0073460	.0000757	.0032108	.0941394
#2	-.000291	-.000024	3.392309	.0076260	-.000208	.0032592	.0909841
#3	-.000169	-.000150	3.367800	.0073178	.000246	.0032242	.0884028

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0373565	.3787151	.0083518	.0001772	242.7585	-.001252	.0215083
Stddev	.0003337	.0015529	.0003933	.0001139	.3960	.000744	.0004010
%RSD	.8933935	.4100388	4.708983	64.28075	.1631337	59.43537	1.864517
#1	.0372579	.3805034	.0086109	.0001817	242.6668	-.001291	.0217229
#2	.0370831	.3777073	.0078993	.0002888	243.1924	-.001976	.0217563
#3	.0377284	.3779345	.0085453	.0000611	242.4165	-.000489	.0210456

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5664269	-.001274	.0002367	-.000418	.0018623	.3259806	.0243283
Stddev	.0105730	.000440	.0004193	.000937	.0003520	.0018588	.0008350
%RSD	1.866606	34.53835	177.1820	224.2724	18.90127	.5702091	3.432098
#1	.5634377	-.000930	.0000313	.000664	.0022687	.3275617	.0251598
#2	.5781726	-.001770	-.000040	-.000946	.0016584	.3239330	.0234899
#3	.5576703	-.001122	.000719	-.000973	.0016596	.3264471	.0243351

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-06 Acquired: 5/13/2025 17:14:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2570486	-.003166	.0171568
Stddev	.0058081	.001032	.0001366
%RSD	2.259551	32.60110	.7960078
#1	.2570558	-.002515	.0173033
#2	.2512369	-.004356	.0171341
#3	.2628532	-.002626	.0170330

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2664.770	66763.08	13902.50	1762.091	4136.423
Stddev	10.038	284.77	32.57	8.540	7.328
%RSD	.3767078	.4265455	.2342815	.4846292	.1771611
#1	2655.417	66813.44	13874.49	1761.455	4129.214
#2	2675.376	66456.48	13894.78	1753.887	4143.865
#3	2663.517	67019.31	13938.24	1770.931	4136.190

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-12 Acquired: 5/13/2025 17:18:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004403	-.005743	.0013132	.0041992	.0013059	.0945092	.1963011
Stddev	.003056	.000699	.0006302	.0023428	.0011414	.0028626	.0010117
%RSD	69.40098	12.17570	47.99192	55.79188	87.40025	3.028911	.5153882
#1	-.003830	-.006545	.0011224	.0056122	.0001448	.0914925	.1972831
#2	-.001675	-.005265	.0020168	.0054905	.0024264	.0971876	.1952621
#3	-.007706	-.005417	.0008004	.0014949	.0013464	.0948475	.1963582

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000277	.0000817	3.731905	-.000207	-.000090	.0114133	.1292335
Stddev	.000043	.0001277	.006013	.000147	.000517	.0002152	.0111929
%RSD	15.70493	156.3374	.1611161	71.09723	575.9882	1.885407	8.660952
#1	-.000234	.0000186	3.731284	-.000204	.000132	.0116615	.1420651
#2	-.000276	.0002286	3.738204	-.000061	.000279	.0112995	.1241565
#3	-.000321	-.000002	3.726227	-.000355	-.000681	.0112790	.1214789

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0235199	.4146130	.0007474	-.000125	328.8345	-.000626	.0734324
Stddev	.0002121	.0019761	.0001183	.000146	1.5188	.001155	.0003630
%RSD	.9019257	.4766186	15.83457	116.5867	.4618596	184.3357	.4943300
#1	.0232794	.4168344	.0007422	-.000110	329.0657	-.000143	.0730192
#2	.0236804	.4130506	.0008682	.000013	327.2133	-.001944	.0735781
#3	.0235998	.4139541	.0006317	-.000277	330.2243	.000208	.0737000

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3759332	.0132709	-.000015	.0001607	.0029012	.3099239	.0222252
Stddev	.0220469	.0001416	.000253	.0009513	.0005443	.0123983	.0012291
%RSD	5.864564	1.067023	1719.738	592.1264	18.76212	4.000445	5.530290
#1	.3811431	.0134298	.000189	-.000393	.0023603	.3058482	.0215275
#2	.3949085	.0131578	-.000299	.001259	.0028943	.3000765	.0236444
#3	.3517480	.0132252	.000066	-.000384	.0034489	.3238471	.0215037

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-12 Acquired: 5/13/2025 17:18:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3922442	-.004044	.0281363
Stddev	.0028554	.000986	.0001677
%RSD	.7279749	24.38413	.5961285
#1	.3932781	-.003370	.0281581
#2	.3890159	-.003586	.0282921
#3	.3944387	-.005176	.0279587

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2639.012	65717.58	13974.20	1744.048	4078.258
Stddev	11.782	324.91	26.24	10.256	18.688
%RSD	.4464529	.4944002	.1878103	.5880466	.4582286
#1	2626.086	65889.18	13944.83	1744.815	4059.989
#2	2649.150	65920.70	13982.37	1753.898	4097.338
#3	2641.800	65342.85	13995.38	1733.430	4077.446

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-18 Acquired: 5/13/2025 17:23:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004768	-.005662	.0044767	.0031336	.0002659	.1606060	.0909566
Stddev	.000337	.001530	.0010564	.0033714	.0001554	.0021314	.0011813
%RSD	7.077472	27.01935	23.59719	107.5908	58.43256	1.327091	1.298775
#1	-.004465	-.007297	.0053450	.0070266	.0003385	.1586971	.0899313
#2	-.005132	-.005426	.0047844	.0011902	.0003716	.1629058	.0906902
#3	-.004707	-.004264	.0033006	.0011839	.0000875	.1602152	.0922484

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000202	.0001664	3.229847	-.000028	.0011842	.0128221	.0781898
Stddev	.000063	.0000973	.015324	.000269	.0001990	.0003015	.0024818
%RSD	30.94580	58.47020	.4744475	942.7614	16.80321	2.351119	3.174017
#1	-.000155	.0000552	3.217755	.000120	.0011952	.0124871	.0759204
#2	-.000179	.0002357	3.224705	-.000339	.0013774	.0129080	.0808399
#3	-.000273	.0002084	3.247080	.000133	.0009799	.0130714	.0778090

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0845419	.5610496	.0025665	.0000370	350.8923	.0002503	.0566613
Stddev	.0005561	.0031675	.0001634	.0002392	2.6957	.0013526	.0004941
%RSD	.6578235	.5645590	6.365336	646.6531	.7682397	540.3717	.8721182
#1	.0847993	.5639895	.0025809	-.000097	351.7491	-.000192	.0561552
#2	.0839037	.5576954	.0023964	.000313	353.0554	-.000826	.0566860
#3	.0849227	.5614639	.0027222	-.000105	347.8723	.001769	.0571426

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4878821	.0032348	.0000805	.0009641	.0025164	.4831543	.0326733
Stddev	.0291432	.0013891	.0002832	.0009875	.0002103	.0036707	.0018270
%RSD	5.973412	42.94130	351.6982	102.4243	8.358722	.7597430	5.591629
#1	.4558297	.0040156	-.000082	.0004201	.0025314	.4812470	.0331634
#2	.5127858	.0040577	-.000084	.0021039	.0022989	.4808298	.0342052
#3	.4950307	.0016310	.000408	.0003682	.0027188	.4873860	.0306512

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-18 Acquired: 5/13/2025 17:23:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3466939	-.003731	.0167257
Stddev	.0039581	.000657	.0000381
%RSD	1.141659	17.61844	.2278129
#1	.3457817	-.003037	.0167258
#2	.3432716	-.003812	.0166876
#3	.3510284	-.004344	.0167638

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2650.981	65692.77	13432.41	1732.200	4072.753
Stddev	2.159	139.55	47.22	7.909	2.732
%RSD	.0814400	.2124269	.3515169	.4565635	.0670708
#1	2653.065	65600.37	13484.57	1740.551	4074.513
#2	2648.754	65624.64	13420.06	1731.228	4069.606
#3	2651.123	65853.30	13392.59	1724.824	4074.139

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-24 Acquired: 5/13/2025 17:27:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003356	-.003428	.0029705	.0048105	.0023553	.1601669	.0682514
Stddev	.001916	.002026	.0012144	.0023525	.0020882	.0053446	.0008488
%RSD	57.09386	59.11717	40.87993	48.90293	88.65989	3.336895	1.243559
#1	-.001229	-.002253	.0020475	.0057514	.0047457	.1642478	.0689450
#2	-.003894	-.005768	.0025180	.0065468	.0014344	.1621358	.0685043
#3	-.004946	-.002263	.0043462	.0021332	.0008858	.1541172	.0673050

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000212	-.000164	3.590136	.0007911	-.000102	.0092181	.0979625
Stddev	.000023	.000180	.018569	.0000956	.000039	.0000909	.0012874
%RSD	10.76532	109.7119	.5172317	12.08828	38.19779	.9865616	1.314147
#1	-.000239	.000044	3.575489	.0008892	-.000068	.0093107	.0986856
#2	-.000198	-.000274	3.611021	.0007860	-.000145	.0092148	.0964762
#3	-.000200	-.000261	3.583898	.0006982	-.000095	.0091289	.0987259

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0224241	.5289612	.0005692	-.000061	322.7355	-.000809	.0357354
Stddev	.0004231	.0142663	.0001399	.000358	.7970	.000716	.0006040
%RSD	1.886995	2.697042	24.57847	585.7614	.2469516	88.48381	1.690205
#1	.0220066	.5427668	.0007202	.000300	323.5896	.000016	.0361233
#2	.0228527	.5142749	.0005437	-.000067	322.0117	-.001269	.0360434
#3	.0224130	.5298419	.0004439	-.000417	322.6051	-.001174	.0350395

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2553203	.0007065	.0003592	.0007908	.0036153	.3071380	.0224236
Stddev	.0168704	.0005621	.0001812	.0003139	.0003719	.0054261	.0022306
%RSD	6.607558	79.56725	50.43296	39.69280	10.28634	1.766660	9.947802
#1	.2632240	.0013527	.0003225	.0011447	.0036495	.3012351	.0240156
#2	.2667880	.0004364	.0005559	.0006820	.0039690	.3119085	.0198740
#3	.2359490	.0003304	.0001992	.0005458	.0032276	.3082703	.0233811

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-24 Acquired: 5/13/2025 17:27:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2738242	-.002703	.0255171
Stddev	.0084729	.000402	.0000021
%RSD	3.094279	14.88520	.0083322
#1	.2791843	-.002273	.0255149
#2	.2640560	-.002766	.0255171
#3	.2782322	-.003070	.0255192

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2621.809	66341.49	13105.46	1741.247	4017.535
Stddev	5.421	257.95	43.45	3.331	5.407
%RSD	.2067539	.3888157	.3315273	.1912792	.1345956
#1	2620.722	66189.88	13085.10	1743.236	4023.577
#2	2617.014	66195.25	13075.93	1743.103	4013.151
#3	2627.691	66639.32	13155.35	1737.402	4015.877

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-30 Acquired: 5/13/2025 17:32:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004292	-.004734	.0003956	.0026799	-.000354	.0734409	.0801765
Stddev	.001861	.001613	.0006500	.0046538	.000817	.0035519	.0003916
%RSD	43.35198	34.07937	164.3219	173.6552	230.9979	4.836445	.4884112
#1	-.004846	-.004773	-.000242	.0036422	-.000134	.0693620	.0805973
#2	-.002218	-.006328	.000371	.0067774	.000331	.0751084	.0798229
#3	-.005814	-.003102	.001057	-.002380	-.001258	.0758522	.0801092

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000262	-.000085	4.246106	-.000512	-.000220	.0100917	.0388920
Stddev	.000026	.000108	.023388	.000279	.000281	.0003555	.0015921
%RSD	9.781944	126.6678	.5508096	54.53192	127.5744	3.523008	4.093725
#1	-.000281	.000025	4.220905	-.000223	.000059	.0098025	.0397909
#2	-.000233	-.000089	4.250299	-.000532	-.000503	.0099840	.0398315
#3	-.000272	-.000191	4.267113	-.000781	-.000216	.0104886	.0370538

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0328239	.3926058	.0003064	-.000157	299.0076	-.000795	.0397730
Stddev	.0002277	.0045530	.0001768	.000330	3.2107	.000537	.0002017
%RSD	.6936003	1.159681	57.68030	209.9939	1.073773	67.48993	.5071255
#1	.0326880	.3915218	.0001267	-.000416	299.9878	-.001408	.0398397
#2	.0330867	.3886926	.0004801	-.000271	301.6139	-.000409	.0395464
#3	.0326969	.3976029	.0003125	.000215	295.4211	-.000569	.0399328

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4373873	.0011698	.0003791	-.000128	.0014414	.2152959	.0176316
Stddev	.0234100	.0004924	.0002426	.000319	.0003054	.0107314	.0013997
%RSD	5.352231	42.09732	64.00739	250.1459	21.18958	4.984485	7.938580
#1	.4602416	.0012862	.0005682	-.000070	.0017659	.2071201	.0179959
#2	.4134586	.0015936	.0004635	.000159	.0013987	.2113197	.0160858
#3	.4384618	.0006296	.0001055	-.000471	.0011595	.2274479	.0188131

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-30 Acquired: 5/13/2025 17:32:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2564451	-.003872	.0265286
Stddev	.0000221	.000620	.0000823
%RSD	.0086038	16.02219	.3104053
#1	.2564213	-.004192	.0265517
#2	.2564649	-.004268	.0265970
#3	.2564491	-.003157	.0264372

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2665.167	66693.85	13516.83	1750.722	4105.061
Stddev	10.724	80.49	32.41	5.746	7.064
%RSD	.4023827	.1206933	.2397540	.3281894	.1720821
#1	2671.435	66614.46	13547.53	1748.151	4109.984
#2	2671.281	66775.40	13520.00	1757.304	4108.232
#3	2652.784	66691.68	13482.95	1746.711	4096.967

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-36 Acquired: 5/13/2025 17:36:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004885	-.003456	.0010433	.0052396	.0032726	.1145302	.1112049
Stddev	.001359	.000405	.0013882	.0017274	.0007246	.0012560	.0008402
%RSD	27.81893	11.71261	133.0599	32.96917	22.14001	1.096620	.7555366
#1	-.004316	-.003888	.0025042	.0063681	.0038746	.1138589	.1106927
#2	-.006437	-.003085	.0008839	.0060997	.0024684	.1137525	.1107475
#3	-.003904	-.003396	-.000258	.0032509	.0034747	.1159791	.1121745

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000236	-.000117	3.119999	.0027208	.0005392	.0130872	.0762336
Stddev	.000042	.000041	.007929	.0002851	.0003086	.0000855	.0023114
%RSD	17.56306	34.88036	.2541347	10.47915	57.23824	.6536559	3.031959
#1	-.000193	-.000101	3.111751	.0024550	.0005309	.0129951	.0743332
#2	-.000276	-.000163	3.120680	.0030219	.0002349	.0131021	.0788067
#3	-.000239	-.000086	3.127566	.0026853	.0008520	.0131642	.0755609

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0575685	.3078056	.0018247	.0001477	378.5386	-.002335	.0549446
Stddev	.0006465	.0091851	.0001897	.0000342	3.9271	.000580	.0004158
%RSD	1.122984	2.984051	10.39697	23.12650	1.037437	24.85538	.7567504
#1	.0570736	.2992411	.0018690	.0001833	376.5252	-.002366	.0546895
#2	.0573319	.3175057	.0016168	.0001445	376.0265	-.002899	.0554244
#3	.0583000	.3066702	.0019884	.0001152	383.0641	-.001739	.0547200

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.203249	.0068980	-.000037	.0002928	.0026486	.4923558	.0358486
Stddev	.009627	.0009576	.000423	.0007389	.0001792	.0008427	.0024228
%RSD	.8001017	13.88186	1140.183	252.3711	6.765711	.1711597	6.758306
#1	1.204684	.0066409	.000277	.0004596	.0025454	.4931462	.0386045
#2	1.192985	.0060952	-.000518	.0009340	.0028555	.4924521	.0340540
#3	1.212078	.0079579	.000130	-.000515	.0025448	.4914691	.0348874

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-36 Acquired: 5/13/2025 17:36:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4120830	-.003499	.0239010
Stddev	.0063223	.000826	.0001369
%RSD	1.534227	23.59397	.5725944
#1	.4189665	-.003073	.0237758
#2	.4065354	-.002974	.0238801
#3	.4107472	-.004451	.0240471

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2639.646	66189.34	13744.91	1751.382	4034.344
Stddev	4.131	221.59	54.93	4.224	9.152
%RSD	.1564951	.3347880	.3996050	.2411998	.2268567
#1	2642.327	66332.69	13757.06	1751.227	4043.004
#2	2641.721	65934.11	13792.75	1747.237	4035.259
#3	2634.889	66301.21	13684.93	1755.682	4024.769

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV04 Acquired: 5/13/2025 17:40:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.929020	4.997655	4.724921	5.024594	5.015221	9.671124	9.539250
Stddev	.009038	.026283	.010231	.028308	.024794	.024274	.053104
%RSD	.1833695	.5259066	.2165241	.5633790	.4943756	.2509962	.5566875
#1	4.932033	4.980552	4.718417	5.005538	4.997964	9.643475	9.533533
#2	4.936168	4.984495	4.719634	5.011122	5.004065	9.688932	9.489237
#3	4.918861	5.027919	4.736714	5.057121	5.043633	9.680967	9.594982

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2387774	2.333320	23.04914	.9607607	2.360347	1.234505	4.851196
Stddev	.0005682	.002177	.09499	.0004918	.003541	.003728	.019538
%RSD	.2379801	.0933208	.4121258	.0511870	.1500181	.3020154	.4027413
#1	.2393309	2.330919	23.05736	.9605023	2.357445	1.232544	4.832640
#2	.2381955	2.333875	22.95030	.9613278	2.359302	1.232166	4.849362
#3	.2388058	2.335166	23.13975	.9604521	2.364292	1.238805	4.871586

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.338860	22.83867	2.360689	1.239007	24.93095	2.369953	2.486631
Stddev	.004512	.05296	.002068	.001798	.09091	.005333	.001239
%RSD	.1929228	.2318758	.0876016	.1451305	.3646655	.2250364	.0498178
#1	2.339385	22.79711	2.358822	1.238319	24.85083	2.372479	2.487338
#2	2.334109	22.82060	2.360335	1.237655	24.91226	2.363826	2.485201
#3	2.343087	22.89830	2.362912	1.241048	25.02976	2.373554	2.487355

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.77980	4.803041	4.944028	4.710367	4.769842	4.885108	4.701167
Stddev	.02197	.013370	.016332	.009102	.010094	.017088	.011154
%RSD	.0886768	.2783581	.3303435	.1932394	.2116123	.3497900	.2372610
#1	24.77693	4.805188	4.931779	4.700205	4.766176	4.865774	4.689816
#2	24.80306	4.788728	4.937734	4.713121	4.762094	4.891363	4.712113
#3	24.75939	4.815207	4.962571	4.717774	4.781257	4.898187	4.701570

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV04 Acquired: 5/13/2025 17:40:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.774095	4.893603	4.832224
Stddev	.012439	.009500	.045065
%RSD	.2605432	.1941233	.9325879
#1	4.765609	4.883299	4.880631
#2	4.768303	4.902013	4.791486
#3	4.788374	4.895495	4.824554

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2741.610	66334.94	13553.21	1783.521	4230.131
Stddev	9.168	44.98	15.98	4.522	7.011
%RSD	.3343896	.0678092	.1179252	.2535534	.1657412
#1	2750.946	66386.44	13548.90	1787.639	4238.179
#2	2741.265	66303.34	13570.90	1778.681	4226.861
#3	2732.620	66315.05	13539.82	1784.244	4225.352

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB04 Acquired: 5/13/2025 17:46:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009122	-.000258	-.000541	.0024123	-.000071	.0113444	-.011574
Stddev	.0020040	.000133	.001159	.0029865	.002513	.0028562	.000899
%RSD	219.6793	51.59312	214.2397	123.8047	3564.608	25.17700	7.763283
#1	-.000200	-.000284	-.001449	.0031839	.002555	.0091772	-.012184
#2	.003226	-.000113	-.000938	.0049372	-.002453	.0102751	-.011996
#3	-.000289	-.000375	.000764	-.000884	-.000314	.0145809	-.010543

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000099	.0000350	.0080887	-.000325	.0001935	.0000053	.0034618
Stddev	.000064	.0000731	.0015589	.000716	.0003097	.0001565	.0001913
%RSD	64.81747	208.7082	19.27200	220.2048	160.1055	2948.178	5.524920
#1	-.000139	.0000929	.0075917	.000322	-.000135	-.000173	.0033236
#2	-.000025	-.000047	.0098355	-.001094	.000480	.000070	.0033819
#3	-.000132	.000059	.0068390	-.000204	.000236	.000119	.0036801

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003872	.0055843	.0001021	.0002744	.9560118	-.002268	.0043242
Stddev	.0003722	.0139598	.0003567	.0001058	.0131143	.000508	.0002697
%RSD	96.14060	249.9830	349.4242	38.55854	1.371770	22.41262	6.236896
#1	.0000922	.0020119	-.000236	.0001988	.9608813	-.001687	.0040906
#2	.0002640	.0209831	.000068	.0003953	.9411593	-.002487	.0046193
#3	.0008054	-.006242	.000475	.0002290	.9659948	-.002629	.0042625

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2044329	-.004725	.0001847	-.000762	.0007099	.0113490	.0036567
Stddev	.0192407	.000365	.0003564	.000860	.0009761	.0087149	.0020148
%RSD	9.411739	7.733375	192.9161	112.7938	137.4988	76.79035	55.09951
#1	.1850027	-.004394	-.000218	-.000311	.0018059	.0054642	.0014714
#2	.2048175	-.004663	.000459	-.001754	.0003897	.0072219	.0040582
#3	.2234783	-.005117	.000313	-.000222	-.000066	.0213608	.0054406

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB04 Acquired: 5/13/2025 17:46:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000405	-.000982	.0000157
Stddev	.004971	.000461	.0000303
%RSD	1226.694	46.98102	193.7045
#1	.001754	-.001211	-.000011
#2	-.006090	-.000451	.000009
#3	.003121	-.001283	.000049

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2831.001	69418.05	14437.67	1854.551	4537.809
Stddev	11.063	171.30	124.04	10.462	14.006
%RSD	.3907731	.2467672	.8591338	.5641042	.3086401
#1	2825.080	69614.82	14580.79	1865.677	4527.697
#2	2824.159	69302.17	14361.39	1844.913	4531.936
#3	2843.764	69337.16	14370.82	1853.064	4553.795

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-42 Acquired: 5/13/2025 17:50:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003515	-.004748	-.000390	.0061741	.0010836	.1179601	.0513541
Stddev	.000536	.000609	.001432	.0045059	.0006340	.0017542	.0008091
%RSD	15.25096	12.82885	367.5440	72.98032	58.50910	1.487075	1.575607
#1	-.003792	-.005442	-.000287	.0021601	.0017932	.1159346	.0511027
#2	-.003856	-.004306	.000989	.0053143	.0005729	.1189817	.0507005
#3	-.002897	-.004494	-.001871	.0110480	.0008847	.1189641	.0522591

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000179	.0000089	2.843861	-.000322	.0001647	.0054881	.0627459
Stddev	.000066	.0000981	.019417	.000372	.0001886	.0004585	.0047902
%RSD	36.88395	1108.574	.6827572	115.2055	114.4556	8.354074	7.634311
#1	-.000254	-.000071	2.832652	-.000231	.0000301	.0059013	.0624901
#2	-.000156	-.000021	2.866282	-.000005	.0000839	.0055681	.0676590
#3	-.000128	.000118	2.832650	-.000731	.0003802	.0049949	.0580888

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1255358	.2910963	.0020918	-.000202	343.8239	-.001223	.0285288
Stddev	.0005022	.0016300	.0002793	.000178	.6278	.000750	.0001871
%RSD	.4000551	.5599453	13.35035	87.83659	.1826068	61.35790	.6558921
#1	.1254516	.2908955	.0020459	-.000254	343.9547	-.000357	.0283361
#2	.1260748	.2928173	.0023912	-.000348	343.1409	-.001641	.0287098
#3	.1250810	.2895760	.0018384	-.000004	344.3760	-.001671	.0285404

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6997555	.0009140	.0002319	.0000964	.0029968	.3895665	.0196499
Stddev	.0142947	.0004094	.0003985	.0011763	.0002945	.0056799	.0041690
%RSD	2.042818	44.78900	171.8598	1220.252	9.828261	1.457996	21.21637
#1	.6832831	.0008993	.0000475	.0012338	.0029347	.3961033	.0232484
#2	.7070789	.0005122	.0006891	.0001707	.0033175	.3858360	.0150814
#3	.7089046	.0013305	-.000041	-.001115	.0027383	.3867602	.0206200

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-42 Acquired: 5/13/2025 17:50:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2907168	-.002495	.0214775
Stddev	.0058059	.000588	.0000387
%RSD	1.997109	23.55129	.1801163
#1	.2887201	-.001839	.0214614
#2	.2861728	-.002676	.0215216
#3	.2972576	-.002972	.0214494

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2636.200	65652.91	13324.37	1717.192	4061.516
Stddev	8.952	145.09	53.11	.355	12.418
%RSD	.3395860	.2210028	.3985809	.0206939	.3057550
#1	2640.235	65505.66	13293.39	1717.342	4064.704
#2	2642.425	65795.75	13294.03	1716.786	4072.029
#3	2625.941	65657.33	13385.70	1717.447	4047.814

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-48 Acquired: 5/13/2025 17:55:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004510	-.004270	.0019752	.0064479	.0014164	.2076891	.1003106
Stddev	.004607	.001856	.0004329	.0046644	.0016620	.0062386	.0010936
%RSD	102.1607	43.46346	21.91847	72.33972	117.3392	3.003816	1.090216
#1	-.004619	-.006411	.0015327	.0032916	.0026875	.2048104	.0997193
#2	.000151	-.003110	.0019951	.0042465	-.000464	.2034098	.1015725
#3	-.009062	-.003290	.0023979	.0118055	.002026	.2148473	.0996399

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000227	.0001326	2.287943	.0013203	.0001478	.0090318	.0552631
Stddev	.000027	.0000152	.008998	.0005059	.0001232	.0002381	.0084104
%RSD	11.96043	11.45394	.3932771	38.31847	83.40552	2.636533	15.21878
#1	-.000206	.0001195	2.290920	.0018961	.0000675	.0090042	.0578351
#2	-.000218	.0001290	2.295075	.0011182	.0000861	.0088087	.0458670
#3	-.000258	.0001492	2.277833	.0009467	.0002896	.0092826	.0620871

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0938244	.3003064	.0024846	-.000177	352.0931	-.001360	.0338209
Stddev	.0002385	.0015741	.0003850	.000065	1.4521	.000607	.0002636
%RSD	.2542182	.5241760	15.49355	36.36607	.4124146	44.63524	.7795552
#1	.0940161	.2989775	.0021324	-.000149	351.8497	-.001178	.0339613
#2	.0935573	.3020448	.0028955	-.000251	350.7782	-.000866	.0339845
#3	.0938999	.2998969	.0024259	-.000132	353.6516	-.002038	.0335167

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4222219	.0006228	.0001426	.0015812	.0022728	.3733815	.0188243
Stddev	.0182579	.0002340	.0001091	.0009433	.0011006	.0079316	.0018819
%RSD	4.324255	37.56639	76.53179	59.65798	48.42641	2.124256	9.997023
#1	.4013182	.0004416	.0002392	.0015388	.0035388	.3647714	.0180983
#2	.4303013	.0005398	.0000242	.0025450	.0017358	.3749830	.0209611
#3	.4350462	.0008869	.0001643	.0006598	.0015437	.3803902	.0174136

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-48 Acquired: 5/13/2025 17:55:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3046358	-.002990	.0188832
Stddev	.0072947	.000415	.0000167
%RSD	2.394573	13.89450	.0884852
#1	.3115603	-.003312	.0188999
#2	.2970200	-.003137	.0188665
#3	.3053270	-.002521	.0188831

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2647.952	66169.51	13505.49	1732.620	4063.964
Stddev	8.742	170.99	53.70	3.240	6.347
%RSD	.3301385	.2584137	.3975903	.1869767	.1561898
#1	2657.605	66018.09	13508.32	1729.121	4070.242
#2	2645.682	66135.49	13450.43	1735.515	4064.099
#3	2640.569	66354.96	13557.72	1733.225	4057.549

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-54 Acquired: 5/13/2025 17:59:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004133	-.004238	.0022296	.0057797	.0012033	.0888656	.0873923
Stddev	.003426	.001122	.0010241	.0014741	.0014600	.0029570	.0014370
%RSD	82.89689	26.46928	45.93326	25.50461	121.3320	3.327453	1.644325
#1	-.000191	-.003312	.0032581	.0045291	.0016841	.0869030	.0869349
#2	-.006398	-.003917	.0012099	.0054051	.0023622	.0922666	.0890024
#3	-.005809	-.005486	.0022207	.0074050	-.000436	.0874273	.0862397

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000191	-.000032	5.735802	-.000339	-.000354	.0069127	.0579373
Stddev	.000052	.000081	.017930	.000135	.000451	.0001192	.0037669
%RSD	27.15364	251.4289	.3125953	39.86398	127.3702	1.724917	6.501657
#1	-.000228	.000030	5.734098	-.000488	-.000181	.0070019	.0606800
#2	-.000212	-.000124	5.754523	-.000307	-.000016	.0067772	.0536423
#3	-.000132	-.000003	5.718785	-.000223	-.000866	.0069589	.0594897

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0644362	.9710082	.0002034	-.000119	320.9361	-.000762	.0286617
Stddev	.0001582	.0082894	.0003233	.000151	2.1200	.000532	.0006616
%RSD	.2455547	.8536873	158.9949	126.9584	.6605676	69.79222	2.308261
#1	.0642770	.9623214	.0002595	-.000074	318.5390	-.000992	.0281845
#2	.0644382	.9718703	.0004949	.000005	322.5647	-.000154	.0283838
#3	.0645935	.9788328	-.000144	-.000287	321.7045	-.001139	.0294170

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2809360	.0005932	.0001293	-.000028	.0018957	.4206422	.0162778
Stddev	.0039005	.0001941	.0001241	.000308	.0006941	.0061937	.0026980
%RSD	1.388397	32.71221	95.97925	1088.097	36.61441	1.472444	16.57500
#1	.2771262	.0005729	.0002331	.000241	.0024807	.4135411	.0171852
#2	.2849213	.0007966	.0001628	-.000364	.0011288	.4249299	.0132430
#3	.2807605	.0004101	-.000008	.000038	.0020776	.4234554	.0184051

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-54 Acquired: 5/13/2025 17:59:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4225515	-.003455	.0343140
Stddev	.0020752	.000351	.0001432
%RSD	.4911023	10.15111	.4173726
#1	.4202270	-.003125	.0344690
#2	.4242176	-.003417	.0341865
#3	.4232098	-.003823	.0342864

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2645.161	65680.72	12970.32	1724.954	4071.539
Stddev	4.172	69.43	41.94	3.274	10.825
%RSD	.1577061	.1057086	.3233898	.1898047	.2658621
#1	2640.786	65620.37	13003.03	1721.176	4060.262
#2	2649.094	65756.60	12984.90	1726.728	4081.846
#3	2645.604	65665.18	12923.03	1726.958	4072.509

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-02 Acquired: 5/13/2025 18:04:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005793	-.006547	-.000272	.0072532	.0021012	.1896764	.1228988
Stddev	.001179	.001637	.000690	.0017791	.0005907	.0044669	.0006140
%RSD	20.34608	25.01051	253.7625	24.52897	28.11118	2.355024	.4995658
#1	-.005330	-.005280	.000520	.0073144	.0024624	.1878559	.1234077
#2	-.007133	-.005966	-.000594	.0090009	.0024216	.1864072	.1230719
#3	-.004917	-.008396	-.000741	.0054442	.0014195	.1947661	.1222169

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000147	.0000346	14.94509	-.000272	.0013059	.0079394	.2081285
Stddev	.000040	.0000435	.02615	.000146	.0003686	.0001843	.0059033
%RSD	26.95533	125.7369	.1749519	53.71352	28.22600	2.321217	2.836361
#1	-.000124	.0000839	14.95151	-.000394	.0016552	.0080561	.2023487
#2	-.000124	.0000013	14.96743	-.000312	.0009207	.0080353	.2078890
#3	-.000192	.0000187	14.91633	-.000110	.0013417	.0077270	.2141479

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3617323	2.639339	.0033243	-.000187	372.8154	.0000526	.1095333
Stddev	.0011001	.011942	.0001643	.000276	2.6064	.0007640	.0007024
%RSD	.3041119	.4524791	4.941021	147.4501	.6991244	1451.902	.6412671
#1	.3630014	2.628701	.0032731	-.000475	371.2630	.0006300	.1090750
#2	.3611450	2.652257	.0035080	.000074	371.3587	.0003415	.1103419
#3	.3610506	2.637060	.0031917	-.000160	375.8246	-.000814	.1091829

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.026499	.0015302	.0003500	.0003332	.0061192	1.250887	.0153610
Stddev	.009941	.0007076	.0000801	.0006899	.0003203	.003878	.0046140
%RSD	.9684588	46.24188	22.89071	207.0724	5.234150	.3100107	30.03672
#1	1.036597	.0010146	.0002641	.0011192	.0060749	1.247555	.0112269
#2	1.016722	.0012391	.0004227	-.000172	.0058233	1.255143	.0145178
#3	1.026178	.0023370	.0003633	.000053	.0064593	1.249961	.0203385

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-02 Acquired: 5/13/2025 18:04:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4516958	-.004307	.0537126
Stddev	.0034995	.000525	.0001558
%RSD	.7747422	12.18142	.2901425
#1	.4540979	-.004913	.0537949
#2	.4476807	-.004021	.0538101
#3	.4533088	-.003988	.0535329

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2637.684	65563.71	13983.37	1719.275	4044.380
Stddev	6.495	154.57	20.65	3.215	6.490
%RSD	.2462472	.2357603	.1476962	.1869811	.1604630
#1	2644.543	65620.76	14007.01	1717.413	4048.299
#2	2636.883	65681.65	13968.80	1722.987	4047.952
#3	2631.627	65388.72	13974.31	1717.426	4036.889

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-04 Acquired: 5/13/2025 18:08:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004008	-.007485	-.001085	.0043834	.0007363	.0812256	.1261172
Stddev	.000158	.001155	.000962	.0070329	.0027100	.0033311	.0008016
%RSD	3.932800	15.42608	88.66513	160.4456	368.0801	4.101007	.6356317
#1	-.004179	-.006454	-.000225	.0118109	-.001312	.0840082	.1269972
#2	-.003869	-.008733	-.000906	.0035134	.003809	.0821342	.1254285
#3	-.003976	-.007268	-.002123	-.002174	-.000288	.0775346	.1259258

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000183	.0001191	13.51371	.0000693	.0021863	.0065483	.0661799
Stddev	.000025	.0000463	.03171	.0001272	.0000778	.0002896	.0020632
%RSD	13.69947	38.87149	.2346417	183.4564	3.557405	4.423005	3.117630
#1	-.000165	.0001114	13.53205	.0001784	.0021819	.0063497	.0673404
#2	-.000212	.0001689	13.47710	.0001000	.0022662	.0064146	.0674014
#3	-.000173	.0000772	13.53199	-.000070	.0021109	.0068807	.0637977

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5000922	2.359892	.0027601	-.000210	304.2487	.0000681	.1719141
Stddev	.0016107	.013117	.0002649	.000330	2.7118	.0020961	.0012154
%RSD	.3220776	.5558338	9.598980	157.3122	.8912944	3079.261	.7070053
#1	.4994838	2.345770	.0026991	-.000284	305.8353	-.001390	.1709661
#2	.4988744	2.362210	.0025310	-.000496	305.7932	.002470	.1732844
#3	.5019185	2.371695	.0030502	.000151	301.1175	-.000877	.1714918

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7660728	-.000524	.0001832	-.001228	.0018154	.8993824	.0137991
Stddev	.0201562	.000580	.0002714	.000400	.0002383	.0126433	.0022225
%RSD	2.631112	110.7110	148.1795	32.57681	13.12685	1.405772	16.10607
#1	.7453110	-.001177	.0002331	-.000828	.0020888	.8918526	.0158799
#2	.7855633	-.000071	.0004261	-.001227	.0017064	.9139791	.0114578
#3	.7673442	-.000322	-.000110	-.001628	.0016511	.8923154	.0140596

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-04 Acquired: 5/13/2025 18:08:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3438763	-.004139	.0476304
Stddev	.0012219	.000603	.0001869
%RSD	.3553275	14.57286	.3925061
#1	.3435914	-.003763	.0474162
#2	.3428220	-.003819	.0477145
#3	.3452154	-.004834	.0477606

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2660.162	66383.82	13613.11	1735.868	4094.823
Stddev	12.125	77.10	31.83	13.920	19.312
%RSD	.4558124	.1161375	.2338544	.8018976	.4716149
#1	2669.944	66390.63	13609.50	1744.406	4112.380
#2	2646.596	66303.54	13646.59	1719.806	4074.138
#3	2663.946	66457.29	13583.23	1743.394	4097.951

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-06 Acquired: 5/13/2025 18:12:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004155	-.006134	-.001568	.0031346	.0036501	.1372979	.0911868
Stddev	.002565	.001872	.001026	.0009018	.0026717	.0011604	.0014330
%RSD	61.72775	30.51859	65.39436	28.76920	73.19566	.8451940	1.571541
#1	-.005936	-.005575	-.002610	.0028929	.0017604	.1365058	.0927972
#2	-.005314	-.008222	-.001534	.0023783	.0067068	.1367580	.0900523
#3	-.001215	-.004605	-.000560	.0041326	.0024831	.1386299	.0907108

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000267	.0000503	12.92398	-.000194	.0099269	.0102328	.1150616
Stddev	.000056	.0000937	.06686	.000170	.0001854	.0001388	.0037930
%RSD	20.95040	186.1211	.5173063	87.46385	1.867232	1.356355	3.296509
#1	-.000206	-.000054	12.95428	-.000185	.0097246	.0100996	.1186072
#2	-.000315	.000080	12.84734	-.000369	.0100884	.0103766	.1110620
#3	-.000280	.000126	12.97032	-.000029	.0099678	.0102221	.1155156

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9780186	1.555913	.0038267	.0002616	351.9225	-.000792	.0464168
Stddev	.0025569	.015567	.0001895	.0001611	1.5295	.000418	.0004507
%RSD	.2614332	1.000484	4.952371	61.59878	.4345986	52.74534	.9708999
#1	.9790901	1.542607	.0037971	.0003721	351.9694	-.001271	.0469149
#2	.9751003	1.573032	.0040293	.0003359	350.3702	-.000593	.0462984
#3	.9798653	1.552101	.0036537	.0000767	353.4280	-.000510	.0460372

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.018725	-.001029	.0002117	.0000671	.0050442	1.270723	.0155351
Stddev	.026790	.000604	.0004320	.0010515	.0002522	.006727	.0029478
%RSD	2.629751	58.69123	204.0433	1567.178	4.999708	.5294001	18.97505
#1	1.005415	-.001682	-.000090	.0011600	.0053236	1.277626	.0150832
#2	1.001196	-.000913	.000707	-.000021	.0049756	1.264187	.0186828
#3	1.049563	-.000491	.000018	-.000937	.0048334	1.270356	.0128394

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-06 Acquired: 5/13/2025 18:12:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4124066	-.004686	.0622629
Stddev	.0059141	.000570	.0004670
%RSD	1.434036	12.16585	.7500665
#1	.4191862	-.005175	.0627920
#2	.4083065	-.004823	.0619081
#3	.4097272	-.004059	.0620885

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2637.080	65879.01	14086.90	1722.696	4036.826
Stddev	6.788	162.87	63.46	4.849	9.451
%RSD	.2574242	.2472259	.4504610	.2814653	.2341109
#1	2640.852	65868.46	14079.84	1720.289	4046.576
#2	2641.145	65721.68	14153.59	1719.522	4036.196
#3	2629.243	66046.90	14027.27	1728.277	4027.706

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-08 Acquired: 5/13/2025 18:17:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005767	-.005664	-.001901	.0028280	.0002931	.1107117	.1164744
Stddev	.001811	.002179	.000423	.0044989	.0017567	.0021808	.0003197
%RSD	31.40184	38.46453	22.26009	159.0855	599.3975	1.969768	.2745125
#1	-.007858	-.005624	-.001412	.0078904	-.000689	.1082714	.1161162
#2	-.004696	-.003506	-.002138	.0013065	-.000753	.1124698	.1167308
#3	-.004747	-.007863	-.002152	-.000713	.002321	.1113939	.1165763

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000218	.0000191	13.68040	-.000445	.0040227	.0098745	.0546678
Stddev	.000025	.0000274	.09305	.000328	.0003625	.0001707	.0040273
%RSD	11.33807	143.2480	.6801896	73.70109	9.011581	1.728657	7.366881
#1	-.000247	.0000452	13.76649	-.000379	.0042087	.0097018	.0510187
#2	-.000204	-.000009	13.58168	-.000800	.0036050	.0098786	.0539959
#3	-.000204	.000021	13.69304	-.000155	.0042545	.0100431	.0589888

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6530400	2.148080	.0025099	.0000876	358.5076	-.000265	.0389164
Stddev	.0022590	.002756	.0005522	.0003826	2.5529	.000943	.0002244
%RSD	.3459127	.1282885	22.00223	436.6933	.7120938	355.7300	.5764868
#1	.6548932	2.151196	.0031450	-.000347	356.7377	-.000341	.0386725
#2	.6505237	2.145961	.0022426	.000239	357.3509	.000713	.0391139
#3	.6537032	2.147084	.0021422	.000372	361.4341	-.001167	.0389630

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.415441	.0010066	.0001689	-.000095	.0024486	1.155993	.0203974
Stddev	.016815	.0001195	.0001364	.000063	.0012229	.010120	.0030470
%RSD	1.187963	11.87297	80.73110	65.86557	49.94525	.8754180	14.93811
#1	1.403810	.0009801	.0000169	-.000165	.0012611	1.153776	.0198624
#2	1.407793	.0009025	.0002093	-.000043	.0023805	1.147165	.0236764
#3	1.434721	.0011371	.0002806	-.000077	.0037041	1.167037	.0176533

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-08 Acquired: 5/13/2025 18:17:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3086074	-.003157	.0625179
Stddev	.0043683	.000971	.0000577
%RSD	1.415495	30.77315	.0922383
#1	.3134057	-.002972	.0624936
#2	.3075551	-.002291	.0625837
#3	.3048613	-.004207	.0624763

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2674.995	67733.71	12812.51	1751.426	4094.787
Stddev	3.086	749.32	56.52	21.737	2.178
%RSD	.1153508	1.106267	.4411246	1.241119	.0531791
#1	2678.557	67917.91	12747.25	1754.845	4096.753
#2	2673.153	68373.75	12845.17	1771.251	4092.446
#3	2673.275	66909.47	12845.12	1728.182	4095.161

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10 Acquired: 5/13/2025 18:21:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003547	-.005488	.0013216	.0038968	-.000703	.1163158	.0983605
Stddev	.003037	.001424	.0014586	.0020432	.001094	.0047668	.0008292
%RSD	85.61263	25.95068	110.3654	52.43334	155.6013	4.098143	.8430468
#1	-.003284	-.006920	-.000202	.0041276	-.001331	.1213495	.0992801
#2	-.000651	-.005473	.001461	.0058147	.000560	.1118707	.0981319
#3	-.006708	-.004071	.002705	.0017480	-.001337	.1157271	.0976696

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000144	-.000133	14.53394	.0002442	.0005252	.0096132	.0926103
Stddev	.000023	.000118	.02551	.0001981	.0002874	.0003451	.0013250
%RSD	16.10727	88.62682	.1755340	81.14159	54.71430	3.589928	1.430732
#1	-.000133	-.000029	14.55808	.0000395	.0003370	.0099115	.0940948
#2	-.000129	-.000110	14.50724	.0004351	.0003827	.0096929	.0921886
#3	-.000171	-.000262	14.53648	.0002579	.0008560	.0092352	.0915475

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1774644	1.617977	.0024532	-.000304	359.2965	-.000732	.0341958
Stddev	.0011407	.004020	.0000638	.000214	2.4096	.000904	.0001688
%RSD	.6427580	.2484292	2.600835	70.37153	.6706506	123.4933	.4935973
#1	.1784397	1.618453	.0025266	-.000524	356.6939	-.001075	.0342489
#2	.1777434	1.613741	.0024106	-.000096	361.4499	-.001415	.0340068
#3	.1762101	1.621737	.0024225	-.000292	359.7457	.000293	.0343316

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.196665	-.001195	.0003875	-.001270	.0032588	1.570639	.0165101
Stddev	.013682	.000067	.0000392	.000218	.0005968	.008149	.0035993
%RSD	1.143319	5.602092	10.11254	17.18991	18.31388	.5188171	21.80081
#1	1.212314	-.001135	.0003447	-.001145	.0029168	1.561708	.0167258
#2	1.190710	-.001267	.0004217	-.001142	.0039479	1.572541	.0199967
#3	1.186969	-.001185	.0003960	-.001522	.0029117	1.577669	.0128077

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10 Acquired: 5/13/2025 18:21:50 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3357190	-.005223	.0736173
Stddev	.0032189	.000541	.0002991
%RSD	.9587986	10.36211	.4063467
#1	.3387768	-.005542	.0739450
#2	.3360202	-.005530	.0735483
#3	.3323602	-.004598	.0733588

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2629.097	65996.58	14181.04	1735.063	4031.288
Stddev	7.190	197.85	33.98	7.577	4.795
%RSD	.2734734	.2997935	.2395811	.4367027	.1189466
#1	2629.177	65915.82	14152.54	1743.726	4035.908
#2	2636.247	65851.89	14218.64	1731.792	4031.622
#3	2621.868	66222.04	14171.94	1729.670	4026.335

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10DUP Acquired: 5/13/2025 18:26:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006854	-.003843	-.001140	.0032839	.0013557	.1117515	.0936820
Stddev	.004737	.000237	.001034	.0013583	.0008835	.0028614	.0005333
%RSD	69.11253	6.159450	90.68977	41.36163	65.16696	2.560518	.5692201
#1	-.008010	-.003724	-.000054	.0042071	.0019762	.1150541	.0932335
#2	-.001646	-.004116	-.002112	.0039202	.0017468	.1100140	.0935408
#3	-.010907	-.003690	-.001255	.0017243	.0003442	.1101865	.0942716

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000156	-.000009	13.96515	-.000522	.0004612	.0088167	.0746317
Stddev	.000039	.000030	.01026	.000488	.0002886	.0002742	.0076317
%RSD	25.25860	336.9601	.0734732	93.44260	62.57442	3.109506	10.22583
#1	-.000120	-.000038	13.96279	-.000716	.0001787	.0085325	.0797834
#2	-.000197	-.000012	13.97639	.000033	.0007556	.0088378	.0782477
#3	-.000149	.000023	13.95628	-.000883	.0004493	.0090796	.0658641

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1653639	1.564801	.0017687	-.000155	342.5524	-.000796	.0315206
Stddev	.0007333	.017013	.0001280	.000258	.7922	.001494	.0007372
%RSD	.4434553	1.087216	7.239191	166.2372	.2312765	187.7648	2.338942
#1	.1662106	1.553092	.0017399	-.000434	341.6496	-.001936	.0307256
#2	.1649373	1.584316	.0019087	.000075	342.8761	.000895	.0321818
#3	.1649437	1.556994	.0016576	-.000106	343.1316	-.001346	.0316543

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.131435	-.000567	.0002862	-.000495	.0038722	1.482154	.0147862
Stddev	.024393	.000585	.0002522	.001060	.0003413	.021294	.0022480
%RSD	2.155936	103.1341	88.11515	214.2506	8.814213	1.436717	15.20317
#1	1.103299	.000072	.0000303	-.001413	.0035170	1.494315	.0130117
#2	1.144367	-.000698	.0002938	.000665	.0039017	1.457566	.0140327
#3	1.146639	-.001075	.0005344	-.000736	.0041977	1.494582	.0173141

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10DUP Acquired: 5/13/2025 18:26:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3030833	-.004760	.0702756
Stddev	.0059534	.000322	.0000234
%RSD	1.964266	6.767829	.0332733
#1	.3088676	-.004465	.0702999
#2	.3034081	-.004711	.0702735
#3	.2969742	-.005104	.0702533

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2665.323	65928.82	14037.42	1738.298	4091.804
Stddev	8.462	256.25	44.60	8.485	10.469
%RSD	.3175010	.3886823	.3177123	.4881033	.2558418
#1	2663.129	66087.46	14034.29	1738.613	4090.436
#2	2674.666	66065.81	13994.46	1729.660	4102.889
#3	2658.173	65633.19	14083.50	1746.621	4082.086

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10LX5 Acquired: 5/13/2025 18:30:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001802	-.000874	.0003002	.0021046	.0006233	.0247533	.0100161
Stddev	.002288	.001419	.0010784	.0014146	.0007456	.0034375	.0003695
%RSD	126.9181	162.4406	359.2299	67.21569	119.6254	13.88710	3.688591
#1	-.004436	-.002513	.0015365	.0028831	-.000062	.0283400	.0096459
#2	-.000666	-.000076	-.000447	.0004717	.001417	.0244326	.0103848
#3	-.000305	-.000033	-.000189	.0029590	.000515	.0214874	.0100176

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000119	-.000001	2.883764	-.000443	.0004133	.0018475	.0191184
Stddev	.000044	.000119	.013753	.000184	.0002444	.0001690	.0014042
%RSD	37.20800	22269.05	.4768995	41.52844	59.13035	9.147906	7.344555
#1	-.000070	.000075	2.885308	-.000632	.0001469	.0019082	.0190153
#2	-.000128	.000061	2.869305	-.000433	.0004658	.0019777	.0205713
#3	-.000157	-.000138	2.896680	-.000265	.0006271	.0016565	.0177686

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0353932	.3339744	.0004424	-.000106	63.34749	-.001887	.0068316
Stddev	.0002912	.0063049	.0004268	.000218	.54938	.000662	.0001916
%RSD	.8226912	1.887849	96.47921	205.2114	.8672427	35.10856	2.804202
#1	.0351928	.3355188	.0002877	-.000357	63.42417	-.002072	.0068524
#2	.0357272	.3393637	.0001145	-.000007	63.85450	-.001151	.0066304
#3	.0352597	.3270408	.0009250	.000045	62.76381	-.002437	.0070119

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3291740	-.008210	-.000143	.0007355	.0016360	.2952064	.0080973
Stddev	.0134395	.000393	.000076	.0013811	.0002304	.0037553	.0017094
%RSD	4.082802	4.791760	52.77696	187.7755	14.08394	1.272092	21.11116
#1	.3136909	-.008209	-.000063	.0022371	.0015022	.2958039	.0071234
#2	.3378238	-.007816	-.000213	-.000480	.0019021	.2911881	.0070974
#3	.3360074	-.008603	-.000154	.000450	.0015037	.2986271	.0100711

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10LX5 Acquired: 5/13/2025 18:30:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0645970	-.001262	.0143058
Stddev	.0014677	.000742	.0000753
%RSD	2.272006	58.80030	.5265583
#1	.0649944	-.001842	.0142755
#2	.0629716	-.000426	.0143916
#3	.0658251	-.001519	.0142504

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2785.358	69619.94	13867.21	1830.635	4381.157
Stddev	7.347	292.99	51.99	1.950	11.507
%RSD	.2637620	.4208354	.3748983	.1065477	.2626481
#1	2788.322	69661.51	13876.22	1830.104	4379.739
#2	2790.759	69308.39	13914.11	1829.005	4393.307
#3	2776.992	69889.92	13811.31	1832.796	4370.425

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV05 Acquired: 5/13/2025 18:35:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.978990	5.001375	4.751117	5.092309	5.068465	9.751646	9.455537
Stddev	.016216	.026221	.020434	.008355	.013253	.023673	.051224
%RSD	.3256951	.5242736	.4300811	.1640764	.2614785	.2427571	.5417394
#1	4.978516	5.008959	4.737554	5.086336	5.062121	9.732190	9.474603
#2	4.963016	5.022969	4.741179	5.088733	5.059576	9.744746	9.494495
#3	4.995438	4.972199	4.774619	5.101857	5.083697	9.778002	9.397514

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2449566	2.343901	22.90740	.9586957	2.368993	1.244931	4.693140
Stddev	.0016987	.009335	.07605	.0010555	.008151	.004813	.034528
%RSD	.6934747	.3982766	.3319711	.1100966	.3440905	.3866252	.7357189
#1	.2429960	2.338464	22.83513	.9599138	2.364984	1.243292	4.730641
#2	.2458855	2.338559	22.90032	.9581215	2.363622	1.241151	4.662665
#3	.2459883	2.354680	22.98673	.9580517	2.378372	1.250349	4.686115

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.317139	22.90639	2.369804	1.237116	23.99673	2.361797	2.484240
Stddev	.011474	.09817	.010102	.001090	.22912	.005330	.005814
%RSD	.4951611	.4285493	.4262964	.0880831	.9547843	.2256840	.2340338
#1	2.309911	22.79492	2.365493	1.237986	24.22921	2.360267	2.487965
#2	2.311137	22.94432	2.362573	1.235894	23.98985	2.367725	2.477540
#3	2.330369	22.97993	2.381347	1.237468	23.77113	2.357399	2.487214

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.98705	4.941745	4.954087	4.724162	4.739159	4.740164	4.779094
Stddev	.22364	.032704	.010532	.015943	.004742	.032689	.013910
%RSD	.9323322	.6617905	.2125934	.3374884	.1000688	.6896267	.2910680
#1	24.23880	4.904339	4.947900	4.714305	4.734791	4.773785	4.781166
#2	23.91096	4.955960	4.948113	4.715625	4.738482	4.708493	4.764264
#3	23.81138	4.964937	4.966248	4.742556	4.744203	4.738215	4.791852

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV05 Acquired: 5/13/2025 18:35:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.852584	4.961182	4.778922
Stddev	.014690	.010771	.048411
%RSD	.3027165	.2171111	1.013003
#1	4.842220	4.969371	4.756302
#2	4.846138	4.965195	4.834502
#3	4.869395	4.948980	4.745962

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2718.381	66753.59	13212.39	1781.736	4187.849
Stddev	8.761	176.97	79.02	4.813	15.147
%RSD	.3223024	.2651150	.5980902	.2701339	.3616876
#1	2723.212	66579.63	13300.80	1777.521	4193.846
#2	2723.663	66933.43	13187.72	1786.980	4199.079
#3	2708.267	66747.72	13148.64	1780.705	4170.622

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB05 Acquired: 5/13/2025 18:39:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000106	.0011369	.0000461	.0027893	.0007942	.0146869	-.010597
Stddev	.003081	.0025183	.0013215	.0020593	.0042422	.0017524	.000539
%RSD	2903.484	221.5075	2864.869	73.82885	534.1616	11.93138	5.085294
#1	.002987	.0001684	.0010943	.0021773	-.003166	.0134622	-.009983
#2	-.003175	.0039956	-.001438	.0050852	.000277	.0139044	-.010811
#3	-.000130	-.000753	.000483	.0011054	.005271	.0166942	-.010995

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000099	.0001847	.0084034	-.000187	.0004208	.0000201	.0152443
Stddev	.000088	.0000692	.0062927	.000129	.0001162	.0000700	.0034669
%RSD	89.07476	37.45742	74.88241	68.75739	27.60262	348.4549	22.74203
#1	-.000192	.0002575	.0046892	-.000239	.0003013	.0000734	.0183845
#2	-.000086	.0001769	.0156689	-.000041	.0004278	.0000461	.0115240
#3	-.000017	.0001198	.0048520	-.000282	.0005333	-.000059	.0158245

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027331	.0039520	.0001680	.0000220	.8054769	-.001642	.0017356
Stddev	.0002645	.0068269	.0001517	.0003243	.0132959	.001539	.0005654
%RSD	9.676347	172.7453	90.31127	1476.911	1.650686	93.70497	32.57277
#1	.0024280	.0068706	.0000233	.0001969	.7916342	-.003381	.0012920
#2	.0028967	-.003849	.0003258	-.000352	.8181485	-.000452	.0015428
#3	.0028748	.008834	.0001548	.000221	.8066481	-.001095	.0023722

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1394440	.0002977	.0009394	.0009638	.0009575	.0224686	.0018827
Stddev	.0132174	.0003099	.0002866	.0009454	.0001495	.0066419	.0029095
%RSD	9.478642	104.1074	30.51274	98.09589	15.61827	29.56101	154.5410
#1	.1520226	.0006541	.0008098	-.000115	.0010450	.0289308	.0043941
#2	.1406402	.0001473	.0012679	.001358	.0010426	.0156604	.0025597
#3	.1256691	.0000917	.0007404	.001649	.0007848	.0228144	-.001306

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB05 Acquired: 5/13/2025 18:39:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002558	-.000656	.0003272
Stddev	.002989	.001081	.0000983
%RSD	116.8615	164.8188	30.04020
#1	-.003998	-.001900	.0003040
#2	.000879	.000050	.0004350
#3	-.004555	-.000118	.0002426

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2850.369	69173.44	13461.05	1858.783	4567.393
Stddev	7.407	83.24	60.25	7.996	12.856
%RSD	.2598623	.1203313	.4475652	.4301943	.2814706
#1	2843.453	69120.67	13392.29	1857.593	4553.503
#2	2858.185	69269.40	13486.28	1867.308	4578.874
#3	2849.469	69130.26	13504.59	1851.448	4569.802

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10MS Acquired: 5/13/2025 18:43:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8257515	1.898366	.9227363	2.070975	.8493276	2.047567	.2782202
Stddev	.0027104	.006345	.0017115	.007741	.0026635	.019118	.0022526
%RSD	.3282382	.3342350	.1854797	.3737971	.3136029	.9336701	.8096560
#1	.8262662	1.903961	.9207876	2.071982	.8492061	2.062005	.2807687
#2	.8228207	1.891472	.9239956	2.062780	.8467270	2.025887	.2764950
#3	.8281678	1.899665	.9234258	2.078164	.8520498	2.054810	.2773969

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1893771	.1923469	15.32658	.3835807	.1914109	.2989884	2.892443
Stddev	.0009133	.0005091	.02014	.0024487	.0016363	.0009003	.009856
%RSD	.4822667	.2646740	.1314183	.6383904	.8548421	.3011288	.3407435
#1	.1891247	.1917811	15.34862	.3812546	.1897354	.2982454	2.881709
#2	.1886166	.1924915	15.32197	.3833515	.1914925	.2987302	2.894536
#3	.1903901	.1927680	15.30914	.3861359	.1930048	.2999896	2.901085

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3587149	3.371197	.4744099	.0742338	336.7509	.2825548	.2367305
Stddev	.0012759	.014735	.0014052	.0003176	1.3937	.0029414	.0014561
%RSD	.3556768	.4370782	.2961905	.4278040	.4138688	1.041004	.6150800
#1	.3590957	3.382171	.4727890	.0739446	338.0021	.2859463	.2351259
#2	.3572920	3.354450	.4751554	.0745736	337.0017	.2807009	.2379675
#3	.3597570	3.376971	.4752851	.0741831	335.2487	.2810172	.2370982

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.16496	.2816058	.4338968	.6872519	.1999785	2.332324	5.981705
Stddev	.03845	.0003775	.0001724	.0035264	.0011377	.015655	.014274
%RSD	.3443791	.1340426	.0397353	.5131153	.5688946	.6712401	.2386291
#1	11.20846	.2814342	.4337053	.6840724	.2012552	2.317351	5.970263
#2	11.13550	.2813446	.4339455	.6866385	.1990722	2.331037	5.977151
#3	11.15093	.2820386	.4340397	.6910447	.1996080	2.348583	5.997700

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10MS Acquired: 5/13/2025 18:43:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3279444	.2088417	.2615456
Stddev	.0034093	.0031293	.0014570
%RSD	1.039591	1.498418	.5570858
#1	.3302160	.2124185	.2632269
#2	.3295931	.2066087	.2606527
#3	.3240242	.2074979	.2607571

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2622.298	65506.94	13207.99	1720.969	4011.563
Stddev	3.201	198.67	29.72	2.420	10.130
%RSD	.1220790	.3032834	.2249965	.1405918	.2525137
#1	2625.207	65673.33	13198.97	1723.108	4023.225
#2	2622.820	65560.52	13241.17	1721.456	4006.512
#3	2618.868	65286.97	13183.83	1718.343	4004.952

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10MSD Acquired: 5/13/2025 18:47:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9189957	2.160921	1.034295	2.300957	.8500324	2.208738	.2758729
Stddev	.0041482	.009369	.000369	.004516	.0009426	.008249	.0008241
%RSD	.4513825	.4335586	.0356569	.1962453	.1108915	.3734784	.2987328
#1	.9237834	2.165133	1.034384	2.304687	.8493297	2.199728	.2756595
#2	.9167287	2.150186	1.034611	2.295937	.8496639	2.210564	.2767827
#3	.9164751	2.167445	1.033890	2.302246	.8511036	2.215921	.2751765

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2000305	.2145804	12.37488	.4293071	.2128869	.3324234	3.283264
Stddev	.0003467	.0003593	.01281	.0014078	.0001712	.0004167	.010751
%RSD	.1732979	.1674339	.1035461	.3279327	.0804206	.1253648	.3274616
#1	.1997316	.2142380	12.37065	.4301407	.2127779	.3322265	3.291869
#2	.2004105	.2145489	12.36472	.4276816	.2130842	.3321416	3.271212
#3	.1999493	.2149544	12.38927	.4300989	.2127986	.3329022	3.286712

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3384151	3.186560	.5318365	.0810057	271.5494	.3140113	.2482235
Stddev	.0012289	.028154	.0004919	.0002566	.6655	.0009345	.0005020
%RSD	.3631334	.8835137	.0924963	.3168313	.2450766	.2976131	.2022260
#1	.3379493	3.165716	.5317328	.0807809	272.2757	.3132919	.2476469
#2	.3398088	3.175376	.5314046	.0809509	271.4039	.3150675	.2484608
#3	.3374872	3.218587	.5323720	.0812854	270.9688	.3136743	.2485629

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.12148	.2949277	.4301167	.6920391	.1987456	2.060796	6.720472
Stddev	.02641	.0014302	.0009870	.0007324	.0015283	.003942	.018834
%RSD	.2178879	.4849184	.2294664	.1058365	.7689912	.1912855	.2802541
#1	12.14940	.2932859	.4306093	.6912259	.1994187	2.056401	6.722749
#2	12.09689	.2959024	.4289804	.6922446	.1969963	2.064018	6.700603
#3	12.11816	.2955948	.4307604	.6926469	.1998219	2.061971	6.738065

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10MSD Acquired: 5/13/2025 18:47:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2431709	.2255613	.2674616
Stddev	.0137457	.0019834	.0012315
%RSD	5.652698	.8793004	.4604337
#1	.2564920	.2232714	.2662650
#2	.2290367	.2266773	.2687252
#3	.2439839	.2267352	.2673945

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2608.909	66458.47	13849.92	1753.915	3994.552
Stddev	9.153	282.37	14.60	5.690	11.623
%RSD	.3508274	.4248813	.1054509	.3244238	.2909804
#1	2608.561	66235.49	13845.59	1747.349	3995.322
#2	2618.231	66775.98	13866.20	1756.998	4005.771
#3	2599.936	66363.96	13837.97	1757.399	3982.563

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10A Acquired: 5/13/2025 18:51:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7727098	1.790546	.8640283	1.940815	.7738331	1.893773	.2729754
Stddev	.0040458	.009877	.0043769	.004656	.0037787	.002556	.0008381
%RSD	.5235881	.5516238	.5065732	.2398937	.4883066	.1349544	.3070127
#1	.7681629	1.779655	.8637305	1.935444	.7697908	1.891497	.2720130
#2	.7740544	1.793061	.8598078	1.943718	.7744318	1.893284	.2733689
#3	.7759121	1.798923	.8685465	1.943282	.7772767	1.896538	.2735442

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1650466	.1801968	15.12141	.3582725	.1792570	.2802569	2.842523
Stddev	.0002841	.0008333	.02426	.0009915	.0011711	.0009429	.015181
%RSD	.1721465	.4624535	.1604123	.2767303	.6532861	.3364505	.5340643
#1	.1653280	.1798104	15.09609	.3587166	.1793867	.2795949	2.828493
#2	.1650520	.1796268	15.14443	.3589643	.1780265	.2798393	2.840436
#3	.1647598	.1811532	15.12371	.3571366	.1803578	.2813365	2.858639

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3448310	3.197458	.4452101	.0685374	345.6538	.2660692	.2201851
Stddev	.0005395	.013178	.0025739	.0006615	1.2896	.0011713	.0005899
%RSD	.1564560	.4121457	.5781217	.9651496	.3730788	.4402070	.2679101
#1	.3443133	3.209880	.4447102	.0684845	346.8879	.2648346	.2206730
#2	.3453899	3.183635	.4429229	.0692238	344.3151	.2662085	.2195295
#3	.3447899	3.198859	.4479972	.0679040	345.7583	.2671646	.2203527

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.01612	.2429686	.3971847	.6275962	.1845363	2.329682	5.624412
Stddev	.03370	.0004903	.0020756	.0029477	.0011784	.011782	.007303
%RSD	.3059463	.2018145	.5225740	.4696822	.6385438	.5057276	.1298418
#1	10.99737	.2428245	.3962440	.6274906	.1839332	2.322073	5.615981
#2	10.99595	.2425664	.3957461	.6247027	.1837817	2.343253	5.628510
#3	11.05503	.2435149	.3995641	.6305953	.1858942	2.323721	5.628746

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-10A Acquired: 5/13/2025 18:51:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2996915	.1910918	.2532750
Stddev	.0035947	.0007713	.0003061
%RSD	1.199479	.4036296	.1208721
#1	.3035993	.1919315	.2534774
#2	.2965255	.1904149	.2529228
#3	.2989498	.1909290	.2534248

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2651.526	67173.79	14238.26	1752.622	4055.622
Stddev	7.001	157.02	27.22	4.029	14.407
%RSD	.2640267	.2337531	.1912008	.2298935	.3552335
#1	2654.743	67297.85	14235.22	1757.272	4054.176
#2	2656.341	66997.25	14212.68	1750.164	4070.697
#3	2643.495	67226.27	14266.87	1750.430	4041.992

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-01 Acquired: 5/13/2025 18:56:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0396412	.0107893	.1461937	-.022065	-.004938	118.1705	.4850085
Stddev	.0027275	.0032612	.0011420	.001948	.004343	1.2466	.0057752
%RSD	6.880372	30.22580	.7811777	8.827090	87.93751	1.054919	1.190739
#1	.0427838	.0103961	.1456364	-.021919	-.001723	119.5996	.4914906
#2	.0378910	.0077425	.1454374	-.024081	-.009878	117.3067	.4831239
#3	.0382487	.0142292	.1475074	-.020194	-.003214	117.6053	.4804110

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069074	-.004137	6.480839	.1377226	.0799317	.1177524	193.6098
Stddev	.0001004	.000595	.079227	.0012466	.0001258	.0005077	1.7807
%RSD	1.454096	14.37877	1.222481	.9051781	.1573496	.4311941	.9197604
#1	.0069967	-.004628	6.567415	.1391248	.0797889	.1171941	195.3072
#2	.0067986	-.004308	6.463150	.1373031	.0799803	.1178763	193.7660
#3	.0069267	-.003475	6.411952	.1367398	.0800260	.1181867	191.7561

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.906384	22.63116	.1423747	.0024998	1.578692	.2097856	.4702330
Stddev	.025237	.22686	.0001882	.0003827	.022431	.0018642	.0008810
%RSD	1.323805	1.002401	.1321707	15.30892	1.420865	.8886357	.1873439
#1	1.935422	22.89151	.1425717	.0026962	1.598206	.2119379	.4711289
#2	1.893989	22.47596	.1421968	.0027445	1.583685	.2086776	.4702021
#3	1.889742	22.52601	.1423558	.0020588	1.554185	.2087412	.4693678

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.130037	.0239635	.0036339	.0040423	1.703877	7.370775	6.528952
Stddev	.018195	.0014649	.0002266	.0008145	.019889	.060361	.039938
%RSD	.4405440	6.112951	6.236422	20.14898	1.167287	.8189197	.6117130
#1	4.148960	.0245037	.0033752	.0049825	1.726843	7.430346	6.525586
#2	4.128481	.0250816	.0037970	.0035536	1.692417	7.372326	6.490803
#3	4.112671	.0223053	.0037297	.0035908	1.692370	7.309654	6.570467

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-01 Acquired: 5/13/2025 18:56:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3954154	.1924207	-.140855
Stddev	.0029750	.0024198	.001185
%RSD	.7523830	1.257583	.8412403
#1	.3983718	.1949502	-.141826
#2	.3924221	.1921842	-.141206
#3	.3954522	.1901278	-.139535

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3140.154	78114.88	15994.98	2062.773	4289.635
Stddev	2.646	354.79	155.80	5.221	5.779
%RSD	.0842490	.4541927	.9740676	.2530823	.1347090
#1	3138.533	77726.04	15824.59	2056.994	4283.232
#2	3143.206	78197.58	16130.17	2064.178	4294.462
#3	3138.721	78421.02	16030.18	2067.148	4291.212

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-07 Acquired: 5/13/2025 19:00:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0293849	.0019439	.3532855	-.012659	-.000326	52.17024	.4497912
Stddev	.0018885	.0022054	.0006450	.004244	.002034	.05075	.0005761
%RSD	6.426602	113.4500	.1825569	33.52588	624.6184	.0972731	.1280853
#1	.0276182	.0043267	.3526541	-.011243	-.001911	52.17073	.4502510
#2	.0291613	.0015305	.3539432	-.017430	-.001034	52.22074	.4499776
#3	.0313752	-.000026	.3532591	-.009303	.001968	52.11924	.4491449

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031566	-.003685	9.785002	.0986690	.0377873	.0928510	110.7269
Stddev	.0000319	.000282	.044879	.0006481	.0001782	.0005119	.9202
%RSD	1.011685	7.664976	.4586489	.6568358	.4716312	.5513116	.8310234
#1	.0031198	-.003804	9.765929	.0986426	.0379920	.0924745	110.6956
#2	.0031744	-.003363	9.752811	.0980345	.0377036	.0934339	109.8228
#3	.0031757	-.003889	9.836268	.0993299	.0376664	.0926447	111.6623

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.664849	14.93238	.0763121	.0021129	1.948697	.1666166	.4649946
Stddev	.003570	.06422	.0003083	.0002446	.014040	.0011072	.0010790
%RSD	.2144544	.4301035	.4039678	11.57634	.7204904	.6645291	.2320547
#1	1.663252	14.93648	.0762816	.0019407	1.954280	.1668146	.4654728
#2	1.662355	14.86621	.0760203	.0020052	1.932724	.1676115	.4637591
#3	1.668939	14.99446	.0766346	.0023929	1.959086	.1654238	.4657519

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.972041	.0169258	.0035173	.0210676	1.363239	9.155282	4.167058
Stddev	.066448	.0023992	.0002557	.0007841	.001660	.049624	.021184
%RSD	2.235767	14.17497	7.270532	3.721637	.1217585	.5420245	.5083739
#1	2.915764	.0186096	.0032565	.0205001	1.365154	9.181100	4.159255
#2	2.955014	.0141787	.0037677	.0207404	1.362329	9.098072	4.191037
#3	3.045346	.0179892	.0035276	.0219623	1.362232	9.186674	4.150883

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-07 Acquired: 5/13/2025 19:00:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7495891	.1159863	-.054184
Stddev	.0033964	.0006011	.000801
%RSD	.4531001	.5182156	1.477739
#1	.7499081	.1154846	-.054153
#2	.7460445	.1158217	-.053399
#3	.7528148	.1166525	-.055000

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2945.859	72860.23	15418.80	1921.049	4381.651
Stddev	5.575	294.25	46.72	9.578	8.271
%RSD	.1892621	.4038556	.3030077	.4985693	.1887726
#1	2946.241	72702.22	15381.63	1910.368	4380.590
#2	2940.102	73199.73	15403.53	1928.873	4373.962
#3	2951.233	72678.73	15471.25	1923.906	4390.403

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-13 Acquired: 5/13/2025 19:04:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0311844	.0040895	.1254978	-.023033	-.003368	81.36382	.1697410
Stddev	.0032406	.0008676	.0006505	.001371	.002216	.07805	.0010426
%RSD	10.39159	21.21649	.5183289	5.953207	65.81297	.0959224	.6142080
#1	.0321964	.0048888	.1255610	-.023408	-.005525	81.27816	.1700463
#2	.0275586	.0031667	.1248180	-.021513	-.001097	81.38242	.1685798
#3	.0337982	.0042131	.1261144	-.024177	-.003482	81.43089	.1705967

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059445	-.002886	7.467904	.1133852	.0793631	.2179731	155.7085
Stddev	.0000585	.000094	.017023	.0002265	.0002658	.0003745	.1951
%RSD	.9838881	3.249142	.2279537	.1997170	.3349310	.1717981	.1253273
#1	.0059157	-.002967	7.486264	.1134605	.0794324	.2178604	155.8953
#2	.0059060	-.002783	7.452643	.1131307	.0795875	.2183910	155.5060
#3	.0060118	-.002907	7.464806	.1135645	.0790696	.2176680	155.7240

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.361738	30.32633	.1525700	.0015673	1.669244	.1683201	.4571948
Stddev	.002917	.02609	.0005927	.0003209	.004018	.0012715	.0021579
%RSD	.2141898	.0860228	.3884992	20.47322	.2406897	.7554185	.4719865
#1	1.363341	30.29791	.1532483	.0012509	1.664605	.1668550	.4563783
#2	1.358371	30.33187	.1521518	.0015586	1.671622	.1691355	.4555644
#3	1.363501	30.34920	.1523100	.0018925	1.671504	.1689697	.4596419

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.178303	.0132805	.0013948	.0034320	2.217860	3.464348	4.790852
Stddev	.022265	.0003105	.0003433	.0002095	.004877	.005159	.008248
%RSD	.5328629	2.338233	24.61417	6.103277	.2198955	.1489091	.1721657
#1	4.163322	.0133466	.0016337	.0036598	2.216260	3.463170	4.800291
#2	4.167700	.0129422	.0010014	.0032476	2.213984	3.469993	4.787230
#3	4.203887	.0135526	.0015495	.0033887	2.223336	3.459879	4.785034

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-13 Acquired: 5/13/2025 19:04:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6467926	.1871668	-.119366
Stddev	.0082535	.0007669	.000079
%RSD	1.276061	.4097260	.0665129
#1	.6561880	.1874053	-.119408
#2	.6407111	.1877861	-.119274
#3	.6434788	.1863090	-.119416

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3014.664	74611.73	15065.57	1988.525	4259.063
Stddev	6.769	144.44	30.11	6.762	7.551
%RSD	.2245244	.1935843	.1998730	.3400525	.1772923
#1	3022.351	74533.78	15076.67	1989.099	4267.663
#2	3012.046	74778.40	15088.55	1994.981	4253.521
#3	3009.597	74523.02	15031.48	1981.494	4256.004

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-19 Acquired: 5/13/2025 19:08:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0374773	.0045158	.1967585	-.026652	-.004121	111.9285	.2273952
Stddev	.0016319	.0026797	.0006336	.009653	.000890	.2565	.0012983
%RSD	4.354347	59.33997	.3220342	36.21624	21.59795	.2291681	.5709379
#1	.0383925	.0028589	.1970997	-.026666	-.004815	112.1404	.2287166
#2	.0355932	.0076074	.1971484	-.036298	-.004429	111.6433	.2273476
#3	.0384462	.0030811	.1960274	-.016993	-.003118	112.0018	.2261214

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054706	-.006333	6.639108	.1616146	.0710434	.1941055	175.0241
Stddev	.0000753	.000099	.039899	.0006242	.0006249	.0009997	.8934
%RSD	1.375622	1.566352	.6009722	.3862158	.8796230	.5150541	.5104472
#1	.0055394	-.006440	6.684540	.1623336	.0717525	.1930970	175.7607
#2	.0054821	-.006315	6.609766	.1612119	.0708043	.1941233	175.2815
#3	.0053902	-.006244	6.623017	.1612983	.0705733	.1950962	174.0303

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.996271	28.24451	.1596232	.0028518	2.174747	.2273549	.5177378
Stddev	.008042	.08215	.0001077	.0002413	.003874	.0010552	.0017721
%RSD	.4028361	.2908514	.0674461	8.461364	.1781453	.4641241	.3422785
#1	2.005536	28.30610	.1597272	.0026699	2.173660	.2285690	.5169348
#2	1.992164	28.15124	.1596302	.0031255	2.179049	.2266592	.5197692
#3	1.991111	28.27620	.1595122	.0027599	2.171532	.2268364	.5165094

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.569795	.0307634	.0012660	.0036103	2.604541	4.703141	4.605162
Stddev	.013656	.0011341	.0003915	.0015692	.007266	.026497	.010443
%RSD	.2988306	3.686516	30.92217	43.46471	.2789733	.5633932	.2267750
#1	4.579595	.0319371	.0017032	.0019628	2.612667	4.728103	4.609700
#2	4.554196	.0306795	.0011469	.0037808	2.602288	4.705981	4.612569
#3	4.575593	.0296736	.0009479	.0050874	2.598669	4.675338	4.593218

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-19 Acquired: 5/13/2025 19:08:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3695439	.2086803	-.121374
Stddev	.0086187	.0013779	.000687
%RSD	2.332259	.6602811	.5663228
#1	.3596135	.2101625	-.121828
#2	.3739414	.2084401	-.121711
#3	.3750768	.2074383	-.120583

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2898.606	72004.82	15243.39	1920.439	4226.796
Stddev	8.046	119.76	41.24	7.271	8.029
%RSD	.2775840	.1663201	.2705598	.3786185	.1899557
#1	2906.214	71866.89	15228.18	1918.964	4235.683
#2	2899.419	72065.15	15290.08	1914.019	4224.637
#3	2890.184	72082.41	15211.92	1928.335	4220.066

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-25 Acquired: 5/13/2025 19:12:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0626137	.0121674	.1891183	-.021725	-.002936	159.6870	.4291806
Stddev	.0046119	.0018026	.0007828	.003215	.001551	.0606	.0022942
%RSD	7.365616	14.81533	.4139040	14.80057	52.84470	.0379538	.5345604
#1	.0595779	.0127364	.1882148	-.018069	-.004265	159.6226	.4316299
#2	.0679208	.0101489	.1895913	-.024113	-.003312	159.6956	.4288302
#3	.0603425	.0136169	.1895490	-.022994	-.001231	159.7429	.4270818

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082173	-.004825	7.146145	.1799190	.1047392	.2215688	227.6464
Stddev	.0000459	.000335	.036785	.0008080	.0007268	.0007551	1.2708
%RSD	.5591621	6.946106	.5147538	.4491026	.6938985	.3407966	.5582157
#1	.0081731	-.005193	7.179280	.1790709	.1055778	.2221803	229.0040
#2	.0082648	-.004537	7.152592	.1806798	.1043475	.2218013	227.4496
#3	.0082140	-.004745	7.106563	.1800064	.1042922	.2207248	226.4855

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.418026	28.00895	.1708883	.0029298	6.977253	.2562835	.6059037
Stddev	.010786	.04820	.0002386	.0004717	.035703	.0014617	.0032334
%RSD	.3155523	.1720833	.1396080	16.09903	.5117106	.5703480	.5336556
#1	3.430438	27.95371	.1706202	.0033597	7.009030	.2554167	.6045974
#2	3.412704	28.04250	.1710771	.0030045	6.984110	.2554627	.6035278
#3	3.410935	28.03062	.1709677	.0024252	6.938618	.2579711	.6095860

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.334095	.0325324	.0038714	.0071099	1.414669	5.738300	6.427378
Stddev	.035381	.0021630	.0003577	.0001165	.003602	.009328	.038081
%RSD	.8163458	6.648743	9.239988	1.638684	.2546278	.1625560	.5924837
#1	4.321545	.0344472	.0040681	.0072420	1.417748	5.744270	6.457919
#2	4.306700	.0329639	.0034585	.0070221	1.415552	5.743078	6.439505
#3	4.374041	.0301862	.0040877	.0070655	1.410708	5.727551	6.384710

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-25 Acquired: 5/13/2025 19:12:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.135582	.2561085	-.168161
Stddev	.004466	.0017558	.000896
%RSD	.3933178	.6855815	.5328557
#1	1.140404	.2579323	-.169150
#2	1.134756	.2559635	-.167928
#3	1.131586	.2544296	-.167403

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3023.015	74075.25	15456.26	2013.852	4085.190
Stddev	7.085	239.47	102.06	8.375	3.857
%RSD	.2343850	.3232812	.6603206	.4158539	.0944042
#1	3030.986	74273.13	15531.95	2016.320	4089.517
#2	3020.626	74143.59	15496.66	2020.715	4083.939
#3	3017.433	73809.04	15340.19	2004.521	4082.114

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-31 Acquired: 5/13/2025 19:16:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0886530	.0103176	.1697465	-.038510	-.002464	180.1050	.2809143
Stddev	.0049400	.0023939	.0019912	.003879	.003961	.2620	.0006566
%RSD	5.572233	23.20189	1.173038	10.07211	160.7845	.1454555	.2337481
#1	.0851456	.0091931	.1680991	-.039469	.001881	179.9103	.2816449
#2	.0865110	.0086931	.1719593	-.041818	-.003398	180.4029	.2807248
#3	.0943024	.0130667	.1691813	-.034241	-.005874	180.0018	.2803733

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0100466	-.001306	6.267798	.1962982	.1165464	.2879183	258.1230
Stddev	.0000446	.000232	.025714	.0008568	.0002316	.0005670	1.5584
%RSD	.4439851	17.76982	.4102575	.4364722	.1987486	.1969385	.6037383
#1	.0100494	-.001573	6.241168	.1957589	.1167064	.2882985	259.7779
#2	.0100006	-.001151	6.292486	.1958495	.1166520	.2872665	256.6835
#3	.0100897	-.001194	6.269740	.1972861	.1162807	.2881898	257.9077

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.823352	31.12953	.2025814	.0008204	5.879180	.3034306	.6102279
Stddev	.015897	.09753	.0006050	.0001623	.034999	.0014319	.0039721
%RSD	.5630432	.3133152	.2986686	19.78791	.5953002	.4719102	.6509291
#1	2.828944	31.14017	.2031915	.0009715	5.875563	.3023803	.6068402
#2	2.835697	31.22130	.2019815	.0006488	5.846131	.3050616	.6092440
#3	2.805415	31.02711	.2025713	.0008410	5.915847	.3028498	.6145995

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.155286	.0118012	.0036465	.0078883	1.745056	7.991144	8.606320
Stddev	.022948	.0023537	.0005283	.0003937	.004234	.045905	.038167
%RSD	.4451404	19.94467	14.48861	4.991417	.2426087	.5744480	.4434713
#1	5.177286	.0143128	.0042015	.0075082	1.746623	8.010569	8.649915
#2	5.131495	.0096460	.0031496	.0082944	1.748283	7.938720	8.578927
#3	5.157078	.0114449	.0035885	.0078623	1.740263	8.024142	8.590118

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-31 Acquired: 5/13/2025 19:16:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7163752	.2817374	-.205203
Stddev	.0035919	.0005826	.001698
%RSD	.5013985	.2067753	.8275940
#1	.7181843	.2819956	-.206926
#2	.7187028	.2810703	-.203530
#3	.7122385	.2821462	-.205153

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3069.377	76364.26	15055.81	2070.632	4057.329
Stddev	6.691	137.91	94.74	5.633	10.417
%RSD	.2180009	.1805997	.6292665	.2720348	.2567556
#1	3066.956	76335.41	15118.36	2075.626	4051.742
#2	3076.942	76514.31	14946.81	2071.745	4069.348
#3	3064.233	76243.04	15102.26	2064.526	4050.897

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV06 Acquired: 5/13/2025 19:20:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.853297	5.007817	4.689801	4.919117	4.928018	9.522270	9.639083
Stddev	.006467	.049578	.009164	.012654	.012687	.023224	.153716
%RSD	.1332431	.9900218	.1954130	.2572367	.2574497	.2438964	1.594719
#1	4.860690	5.004999	4.697508	4.905183	4.921993	9.503292	9.726225
#2	4.850513	4.959707	4.679668	4.922277	4.919465	9.548168	9.729428
#3	4.848689	5.058744	4.692228	4.929892	4.942595	9.515351	9.461597

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2305175	2.316837	22.98933	.9549786	2.341508	1.215562	4.919035
Stddev	.0006092	.002574	.02246	.0017174	.002482	.001854	.021392
%RSD	.2642724	.1111195	.0977139	.1798372	.1059904	.1524878	.4348870
#1	.2298260	2.319004	23.00434	.9553225	2.343731	1.214617	4.939564
#2	.2307513	2.313991	23.00015	.9531152	2.338830	1.214371	4.896873
#3	.2309751	2.317515	22.96351	.9564980	2.341963	1.217698	4.920667

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.321463	22.77416	2.336174	1.219772	24.50428	2.364804	2.435628
Stddev	.005371	.04569	.002189	.000970	.10792	.001608	.002251
%RSD	.2313719	.2006396	.0936976	.0795247	.4404275	.0680014	.0924184
#1	2.321504	22.72185	2.336485	1.219942	24.61761	2.365285	2.437147
#2	2.326813	22.79437	2.333847	1.218728	24.49252	2.363010	2.433042
#3	2.316071	22.80627	2.338191	1.220645	24.40273	2.366116	2.436696

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.82917	4.621230	4.898164	4.674331	4.730153	4.901560	4.690533
Stddev	.12139	.016396	.008311	.005140	.017193	.001630	.019824
%RSD	.4888884	.3548056	.1696823	.1099564	.3634812	.0332446	.4226400
#1	24.95417	4.602342	4.896005	4.677489	4.736201	4.903427	4.675406
#2	24.82159	4.629540	4.891146	4.668400	4.743505	4.900823	4.683218
#3	24.71175	4.631807	4.907342	4.677103	4.710753	4.900428	4.712975

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV06 Acquired: 5/13/2025 19:20:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.703364	4.784779	4.834134
Stddev	.027352	.020905	.035097
%RSD	.5815480	.4369018	.7260329
#1	4.697302	4.796533	4.808798
#2	4.679551	4.797161	4.874195
#3	4.733238	4.760643	4.819408

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2776.795	67269.20	13967.27	1812.854	4264.922
Stddev	4.826	131.40	24.38	5.353	8.763
%RSD	.1737965	.1953407	.1745277	.2952799	.2054644
#1	2771.851	67119.28	13995.28	1806.997	4255.452
#2	2777.040	67364.42	13950.90	1817.492	4266.571
#3	2781.494	67323.90	13955.61	1814.074	4272.744

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB06 Acquired: 5/13/2025 19:25:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008621	.0016993	-.000484	.0036334	-.000148	.0033136	-.009630
Stddev	.0009487	.0000273	.000131	.0031424	.000955	.0094348	.001559
%RSD	110.0484	1.605183	26.98521	86.48592	643.7681	284.7300	16.18465
#1	.0019498	.0017252	-.000341	.0069079	.000052	-.002527	-.011402
#2	.0004309	.0017019	-.000514	.0006423	-.001188	.014198	-.009014
#3	.0002056	.0016709	-.000597	.0033501	.000691	-.001731	-.008473

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000020	.0001188	.0003413	-.000286	.0002886	-.000164	.0044178
Stddev	.000045	.0000450	.0115292	.000255	.0000629	.000148	.0023207
%RSD	225.6835	37.91683	3377.993	89.27076	21.80957	90.60388	52.53031
#1	.000013	.0000674	-.005588	-.000120	.0003139	-.000287	.0070276
#2	-.000071	.0001375	.013629	-.000158	.0003351	-.000205	.0025866
#3	-.000002	.0001515	-.007016	-.000580	.0002170	.000001	.0036390

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002003	.0094324	-.000055	-.000143	.1907674	-.001514	.0005430
Stddev	.0001313	.0023488	.000104	.000419	.0114328	.001923	.0001618
%RSD	65.56810	24.90130	189.7203	292.2283	5.993059	126.9886	29.80315
#1	.0000983	.0119189	-.000153	.000242	.1839851	-.001156	.0004319
#2	.0003484	.0072511	-.000068	-.000083	.2039671	.000204	.0004685
#3	.0001541	.0091272	.000055	-.000590	.1843499	-.003592	.0007287

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0974554	.0006784	.0007129	.0000566	.0009999	.0150479	.0025191
Stddev	.0053379	.0003441	.0000665	.0006395	.0000665	.0054556	.0013901
%RSD	5.477263	50.73165	9.331001	1129.843	6.653828	36.25506	55.17989
#1	.0915576	.0008412	.0006826	-.000187	.0010096	.0117463	.0035145
#2	.0988537	.0002830	.0007891	-.000426	.0009291	.0120524	.0031119
#3	.1019550	.0009109	.0006668	.000782	.0010611	.0213450	.0009310

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB06 Acquired: 5/13/2025 19:25:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004770	-.000768	.0001023
Stddev	.002488	.000292	.0000351
%RSD	52.15063	37.96196	34.28374
#1	-.002329	-.000478	.0000637
#2	-.004681	-.001062	.0001321
#3	-.007302	-.000765	.0001112

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2821.488	69734.63	13758.08	1876.677	4474.475
Stddev	2.335	224.62	28.93	16.505	6.070
%RSD	.0827543	.3221125	.2102775	.8794949	.1356678
#1	2822.097	69880.36	13726.88	1889.951	4474.755
#2	2818.909	69475.95	13784.01	1858.196	4468.269
#3	2823.458	69847.59	13763.36	1881.884	4480.400

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-37 Acquired: 5/13/2025 19:29:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0652840	.0102506	.1280261	-.030886	-.006065	167.7503	.3317978
Stddev	.0032187	.0017864	.0024819	.000970	.000877	.1647	.0004740
%RSD	4.930257	17.42681	1.938562	3.141496	14.46537	.0981661	.1428680
#1	.0671476	.0082152	.1253555	-.031463	-.005072	167.5743	.3323452
#2	.0671371	.0115578	.1302617	-.031428	-.006736	167.9006	.3315306
#3	.0615675	.0109789	.1284609	-.029765	-.006388	167.7761	.3315177

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0084885	-.001388	5.583540	.1755990	.1289346	.2521534	246.7480
Stddev	.0000156	.000394	.010777	.0006499	.0000470	.0007994	1.1113
%RSD	.1835159	28.41316	.1930104	.3700934	.0364843	.3170196	.4503778
#1	.0084733	-.001434	5.571139	.1760139	.1289147	.2513029	246.2100
#2	.0085044	-.000973	5.588837	.1748501	.1289007	.2522680	246.0081
#3	.0084878	-.001758	5.590643	.1759331	.1289883	.2528892	248.0260

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.832416	35.33865	.2281904	.0021492	10.95710	.2522161	.5570276
Stddev	.001877	.02260	.0010930	.0000550	.04508	.0029263	.0015145
%RSD	.0662708	.0639545	.4790027	2.559828	.4114306	1.160235	.2718859
#1	2.830255	35.31326	.2269843	.0021435	10.92443	.2499113	.5557572
#2	2.833645	35.35658	.2291155	.0020973	10.93833	.2512287	.5566220
#3	2.833349	35.34610	.2284713	.0022069	11.00853	.2555084	.5587036

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.400652	.0385989	.0016410	.0034032	1.811809	7.896972	6.152976
Stddev	.028357	.0012215	.0002652	.0012399	.002158	.028042	.019028
%RSD	.6443877	3.164549	16.16242	36.43348	.1190978	.3550986	.3092500
#1	4.385004	.0383307	.0014225	.0027439	1.809647	7.870025	6.131273
#2	4.383567	.0375338	.0015644	.0026323	1.813963	7.894898	6.166796
#3	4.433386	.0399322	.0019361	.0048335	1.811818	7.925994	6.160857

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-37 Acquired: 5/13/2025 19:29:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5584558	.2945284	-.196091
Stddev	.0041057	.0007949	.001060
%RSD	.7351957	.2698744	.5405122
#1	.5564070	.2939726	-.195673
#2	.5557776	.2941738	-.195303
#3	.5631827	.2954388	-.197296

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3249.339	80189.36	16793.22	2172.847	4056.687
Stddev	8.079	228.63	46.03	5.965	6.462
%RSD	.2486396	.2851166	.2740927	.2745210	.1592988
#1	3258.592	80133.70	16743.99	2171.829	4063.203
#2	3245.743	80440.68	16800.49	2179.256	4056.578
#3	3243.682	79993.69	16835.18	2167.457	4050.280

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-43 Acquired: 5/13/2025 19:33:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0514770	.0119079	.1530254	-.032636	-.004335	146.4933	.3201504
Stddev	.0046500	.0010764	.0007720	.007729	.002559	.0913	.0005441
%RSD	9.033112	9.039442	.5045010	23.68248	59.01503	.0623360	.1699682
#1	.0481607	.0108835	.1530566	-.025014	-.007017	146.5593	.3201028
#2	.0494782	.0130297	.1537814	-.040468	-.001921	146.5315	.3207168
#3	.0567922	.0118105	.1522383	-.032427	-.004067	146.3891	.3196316

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0081554	-.004586	5.243690	.1604025	.1107036	.2296708	234.9010
Stddev	.0000853	.000085	.025097	.0013593	.0005122	.0009235	.9068
%RSD	1.046161	1.857597	.4786227	.8474503	.4626830	.4020969	.3860249
#1	.0080585	-.004660	5.216381	.1597096	.1111457	.2304541	235.2294
#2	.0081887	-.004605	5.265744	.1595292	.1101423	.2299058	233.8758
#3	.0082191	-.004493	5.248945	.1619686	.1108229	.2286525	235.5979

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.391166	34.68758	.1954266	.0020396	2.390331	.2332421	.5391283
Stddev	.005466	.12358	.0007883	.0005219	.002952	.0009916	.0061191
%RSD	.1244671	.3562614	.4033918	25.58874	.1234798	.4251402	1.134993
#1	4.395157	34.78361	.1953573	.0022211	2.387713	.2340228	.5342589
#2	4.393404	34.54816	.1946751	.0024465	2.389751	.2321264	.5371290
#3	4.384937	34.73097	.1962472	.0014512	2.393530	.2335772	.5459969

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.428621	.0324552	.0015910	.0036534	1.815315	8.684179	5.129645
Stddev	.017438	.0020888	.0004827	.0014371	.004917	.040640	.020418
%RSD	.3937618	6.435840	30.33657	39.33695	.2708380	.4679718	.3980371
#1	4.412580	.0341214	.0018939	.0037691	1.820939	8.655140	5.149037
#2	4.426101	.0301119	.0010344	.0050292	1.811833	8.666775	5.108337
#3	4.447183	.0331323	.0018448	.0021619	1.813172	8.730622	5.131560

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-43 Acquired: 5/13/2025 19:33:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5178368	.2691142	-.189294
Stddev	.0068648	.0005370	.000931
%RSD	1.325674	.1995312	.4918690
#1	.5099112	.2687971	-.189555
#2	.5216794	.2688114	-.188260
#3	.5219198	.2697342	-.190067

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3117.985	74542.12	15474.52	2006.907	4229.597
Stddev	5.557	397.02	43.41	10.050	5.972
%RSD	.1782378	.5326143	.2805313	.5007739	.1411951
#1	3124.398	74470.23	15454.82	2009.164	4235.642
#2	3114.578	74970.18	15524.28	2015.636	4229.446
#3	3114.979	74185.96	15444.45	1995.920	4223.701

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49 Acquired: 5/13/2025 19:37:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0570161	.0142642	.1520176	-.036740	-.001249	158.2789	.4413372
Stddev	.0021669	.0013164	.0021962	.002488	.000653	.1326	.0003093
%RSD	3.800514	9.228623	1.444697	6.772495	52.27048	.0837645	.0700801
#1	.0580615	.0151597	.1545212	-.034554	-.001706	158.2466	.4416927
#2	.0545247	.0127528	.1504161	-.039448	-.000501	158.4247	.4411886
#3	.0584622	.0148802	.1511155	-.036217	-.001541	158.1655	.4411302

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0093931	-.004981	10.30178	.1821214	.1028073	.2093020	265.8035
Stddev	.0000784	.000247	.03236	.0006428	.0002230	.0004937	.7792
%RSD	.8342750	4.962326	.3141451	.3529646	.2169390	.2358741	.2931412
#1	.0093374	-.005256	10.28389	.1826334	.1030334	.2088075	265.9684
#2	.0094827	-.004778	10.33913	.1823308	.1025875	.2097949	264.9551
#3	.0093592	-.004909	10.28230	.1814000	.1028010	.2093036	266.4870

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.075299	32.42118	.1937833	.0035963	2.188931	.2810541	.4912965
Stddev	.005206	.03595	.0005463	.0002435	.019736	.0017115	.0014727
%RSD	.1277340	.1108875	.2819053	6.771104	.9016210	.6089563	.2997598
#1	4.079087	32.43304	.1943952	.0038519	2.175835	.2793800	.4897715
#2	4.077446	32.44970	.1933448	.0035700	2.179327	.2809815	.4927106
#3	4.069363	32.38080	.1936099	.0033671	2.211631	.2828007	.4914072

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.320081	.0327668	.0018580	.0059363	1.866639	8.616297	6.254383
Stddev	.012451	.0028389	.0000958	.0003965	.000639	.017196	.040547
%RSD	.2882212	8.663915	5.155382	6.678741	.0342193	.1995730	.6482955
#1	4.332100	.0347718	.0018079	.0063226	1.866390	8.602352	6.298847
#2	4.320905	.0295183	.0017977	.0059558	1.867364	8.611028	6.244852
#3	4.307239	.0340102	.0019684	.0055304	1.866162	8.635511	6.219451

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49 Acquired: 5/13/2025 19:37:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6167772	.2706418	-.190641
Stddev	.0020695	.0011387	.000892
%RSD	.3355350	.4207460	.4679367
#1	.6144705	.2718027	-.190777
#2	.6184711	.2695267	-.189688
#3	.6173901	.2705961	-.191457

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2996.248	75967.96	15859.19	2026.376	4057.389
Stddev	5.165	223.10	53.80	6.662	10.397
%RSD	.1723804	.2936744	.3392595	.3287773	.2562485
#1	2993.718	76210.01	15895.01	2031.707	4057.371
#2	3002.190	75923.28	15797.32	2028.513	4067.796
#3	2992.837	75770.58	15885.23	2018.907	4047.002

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49DUP Acquired: 5/13/2025 19:41:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0583936	.0120865	.1398362	-.038703	-.004128	156.0696	.3961160
Stddev	.0018091	.0007811	.0011411	.000441	.002460	.2130	.0005395
%RSD	3.098052	6.462870	.8160363	1.138665	59.59520	.1364840	.1362005
#1	.0567334	.0129215	.1385466	-.038771	-.001854	155.9764	.3959045
#2	.0581256	.0119643	.1402471	-.039105	-.003789	156.3133	.3967292
#3	.0603217	.0113736	.1407150	-.038232	-.006739	155.9191	.3957143

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0099047	-.003835	9.525688	.1798867	.1037870	.1957782	264.6296
Stddev	.0001330	.000164	.022579	.0004715	.0003250	.0011935	.6675
%RSD	1.342446	4.267196	.2370360	.2621324	.3130977	.6096174	.2522338
#1	.0100378	-.004021	9.531330	.1793614	.1034200	.1944604	265.3829
#2	.0097718	-.003770	9.544911	.1802733	.1040382	.1967863	264.1116
#3	.0099045	-.003713	9.500822	.1800255	.1039028	.1960880	264.3945

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.102169	32.60229	.1899038	.0021762	1.940095	.2974719	.4743087
Stddev	.007522	.04452	.0009443	.0003098	.008515	.0020789	.0029701
%RSD	.1833674	.1365551	.4972405	14.23704	.4388908	.6988424	.6261991
#1	4.101280	32.55270	.1888826	.0024387	1.949726	.2975919	.4776813
#2	4.110096	32.61536	.1900834	.0018345	1.933565	.2994882	.4731614
#3	4.095131	32.63882	.1907454	.0022555	1.936995	.2953356	.4720833

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.996987	.0143421	.0017387	.0060308	2.100386	7.608263	5.757556
Stddev	.040361	.0013999	.0003733	.0011320	.006053	.034574	.005817
%RSD	1.009780	9.761042	21.46977	18.77044	.2881646	.4544233	.1010243
#1	4.032256	.0155554	.0020797	.0063674	2.099307	7.622610	5.750902
#2	4.005736	.0128104	.0013399	.0069563	2.106906	7.633354	5.760093
#3	3.952970	.0146607	.0017966	.0047687	2.094946	7.568826	5.761674

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49DUP Acquired: 5/13/2025 19:41:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5256510	.2716456	-.193316
Stddev	.0006712	.0010650	.000572
%RSD	.1276815	.3920603	.2961320
#1	.5262525	.2717427	-.193885
#2	.5249270	.2726588	-.192740
#3	.5257736	.2705354	-.193323

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3025.819	75706.94	15079.73	2014.494	4108.801
Stddev	7.003	44.12	53.34	11.047	8.129
%RSD	.2314300	.0582780	.3537120	.5483807	.1978423
#1	3023.054	75668.94	15126.80	2003.783	4109.076
#2	3033.782	75696.54	15021.80	2025.849	4116.788
#3	3020.621	75755.33	15090.60	2013.851	4100.537

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49LX5 Acquired: 5/13/2025 19:45:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0129577	.0045609	.0294511	-.003236	-.001461	33.68713	.0875915
Stddev	.0025639	.0007377	.0025004	.003213	.000880	.11698	.0016548
%RSD	19.78669	16.17353	8.490167	99.26685	60.21287	.3472442	1.889188
#1	.0134890	.0053953	.0282603	.000377	-.001132	33.55731	.0860804
#2	.0101698	.0042921	.0277686	-.004317	-.002458	33.78435	.0893598
#3	.0152144	.0039954	.0323243	-.005769	-.000793	33.71973	.0873342

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019664	-.002333	2.214597	.0390833	.0201832	.0481238	56.55681
Stddev	.0000308	.000214	.020914	.0001721	.0007319	.0009738	.16757
%RSD	1.566048	9.190432	.9443902	.4403371	3.626332	2.023431	.2962851
#1	.0019398	-.002464	2.207528	.0390685	.0194081	.0470069	56.68761
#2	.0019591	-.002449	2.238130	.0389191	.0202791	.0485707	56.61490
#3	.0020001	-.002085	2.198133	.0392623	.0208625	.0487940	56.36793

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8987934	6.997405	.0381157	.0004693	.4686828	.0592915	.1065618
Stddev	.0018793	.030115	.0006149	.0001719	.0093437	.0008750	.0004180
%RSD	.2090878	.4303803	1.613147	36.63247	1.993615	1.475812	.3922465
#1	.8982104	6.969196	.0374117	.0003299	.4728133	.0596788	.1066194
#2	.9008951	6.993899	.0383881	.0006614	.4579857	.0582897	.1069480
#3	.8972747	7.029120	.0385472	.0004167	.4752495	.0599060	.1061180

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9374689	-.001779	.0004894	-.001415	.4082647	1.878403	1.243415
Stddev	.0138195	.000290	.0002854	.000314	.0025251	.008529	.012721
%RSD	1.474127	16.29192	58.31732	22.19372	.6184960	.4540792	1.023102
#1	.9517734	-.002090	.0008162	-.001777	.4063040	1.879931	1.232467
#2	.9241918	-.001731	.0002890	-.001248	.4111140	1.886065	1.240407
#3	.9364414	-.001516	.0003631	-.001220	.4073762	1.869213	1.257371

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49LX5 Acquired: 5/13/2025 19:45:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1179147	.0561980	-.040231
Stddev	.0019589	.0006599	.000222
%RSD	1.661306	1.174205	.5518611
#1	.1158181	.0561207	-.040479
#2	.1196983	.0555802	-.040163
#3	.1182276	.0568932	-.040051

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2827.010	73298.45	14796.39	1933.847	4311.477
Stddev	13.943	134.58	69.06	4.446	28.641
%RSD	.4932188	.1836095	.4667651	.2299065	.6642879
#1	2836.126	73409.28	14872.98	1938.497	4333.366
#2	2833.945	73148.69	14738.84	1929.638	4322.001
#3	2810.959	73337.37	14777.35	1933.407	4279.063

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49MS Acquired: 5/13/2025 19:50:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7255855	1.905603	1.008229	1.605269	.2379266	168.9307	.5465100
Stddev	.0018834	.029011	.004854	.003462	.0022806	.0912	.0028151
%RSD	.2595690	1.522402	.4814414	.2156440	.9585257	.0539959	.5151009
#1	.7275403	1.876159	1.003349	1.608989	.2363956	169.0210	.5489016
#2	.7237827	1.934161	1.008281	1.602142	.2405477	168.8386	.5434077
#3	.7254336	1.906490	1.013057	1.604675	.2368366	168.9325	.5472207

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1631490	.1754772	9.624097	.5144485	.2873618	.4488390	286.5683
Stddev	.0002876	.0003675	.020188	.0007783	.0005500	.0004378	.5990
%RSD	.1762654	.2094380	.2097621	.1512795	.1914068	.0975341	.2090244
#1	.1628199	.1750584	9.602696	.5144408	.2872019	.4483893	287.2534
#2	.1633520	.1757461	9.626794	.5136741	.2869094	.4488639	286.1435
#3	.1632750	.1756270	9.642800	.5152306	.2879740	.4492638	286.3079

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.996231	36.86696	.6560561	.0681699	4.810528	.5542037	.6204990
Stddev	.010281	.07790	.0006381	.0001628	.008576	.0013889	.0012548
%RSD	.2572701	.2112889	.0972659	.2388394	.1782748	.2506173	.2022264
#1	4.007389	36.81984	.6554114	.0680956	4.807962	.5551935	.6204672
#2	3.987140	36.82416	.6566874	.0680575	4.820093	.5526159	.6217694
#3	3.994166	36.95687	.6560694	.0683566	4.803527	.5548017	.6192603

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.80579	.2419671	.3493287	.6159681	2.697413	8.356026	10.38329
Stddev	.03307	.0013809	.0004573	.0021061	.005166	.012744	.06098
%RSD	.2582186	.5707006	.1308992	.3419229	.1915044	.1525105	.5872774
#1	12.82787	.2430760	.3488072	.6135610	2.703136	8.370467	10.31600
#2	12.76778	.2424049	.3495181	.6168712	2.693096	8.351251	10.43489
#3	12.82173	.2404203	.3496609	.6174720	2.696008	8.346358	10.39897

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49MS Acquired: 5/13/2025 19:50:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5301387	.4898888	-.040606
Stddev	.0083550	.0010064	.000404
%RSD	1.576011	.2054418	.9941439
#1	.5277007	.4910332	-.040199
#2	.5232738	.4894916	-.041006
#3	.5394415	.4891415	-.040611

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3040.846	76549.38	15884.61	2031.839	4132.845
Stddev	2.403	106.72	19.07	6.692	3.184
%RSD	.0790153	.1394089	.1200590	.3293457	.0770347
#1	3038.074	76616.33	15903.18	2030.755	4129.219
#2	3042.150	76426.31	15885.56	2025.755	4134.134
#3	3042.315	76605.50	15865.08	2039.006	4135.182

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49MSD Acquired: 5/13/2025 19:54:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7146866	1.858927	1.026595	1.542365	.2384100	187.0868	.6235587
Stddev	.0035766	.016845	.002696	.004605	.0029226	.4024	.0023168
%RSD	.5004495	.9061424	.2626468	.2985556	1.225882	.2151006	.3715436
#1	.7107836	1.843590	1.023486	1.538256	.2361667	187.3962	.6261554
#2	.7154688	1.856236	1.028001	1.541497	.2373481	187.2323	.6217031
#3	.7178074	1.876955	1.028298	1.547342	.2417151	186.6319	.6228176

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1575517	.1722460	11.19885	.5379892	.3006591	.4583308	322.6694
Stddev	.0007135	.0013206	.02478	.0031783	.0014162	.0021648	.2855
%RSD	.4528427	.7667165	.2212827	.5907722	.4710267	.4723278	.0884764
#1	.1583618	.1715117	11.22690	.5345238	.2998606	.4571948	322.3918
#2	.1570166	.1714557	11.18969	.5407682	.2998224	.4569704	322.9622
#3	.1572768	.1737706	11.17995	.5386756	.3022942	.4608271	322.6543

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.371541	39.70862	.6744672	.0692841	5.902580	.5718649	.7024227
Stddev	.016603	.11654	.0045118	.0003619	.022550	.0004972	.0009054
%RSD	.3797869	.2934949	.6689412	.5223990	.3820282	.0869511	.1288956
#1	4.389571	39.84290	.6716433	.0692997	5.877947	.5723666	.7017942
#2	4.356883	39.63378	.6720875	.0689146	5.922203	.5718557	.7020133
#3	4.368170	39.64919	.6796706	.0696380	5.907589	.5713723	.7034604

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.43974	.2508435	.3500975	.6287869	2.713784	7.716226	11.27679
Stddev	.03822	.0014348	.0009541	.0027251	.013725	.020333	.06875
%RSD	.2646868	.5719773	.2725270	.4333965	.5057674	.2635037	.6096296
#1	14.39573	.2493341	.3502259	.6283239	2.729362	7.703354	11.23243
#2	14.46462	.2521896	.3490857	.6263230	2.708526	7.739666	11.24197
#3	14.45886	.2510068	.3509809	.6317139	2.703466	7.705658	11.35598

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49MSD Acquired: 5/13/2025 19:54:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.178285	.5140929	-.066077
Stddev	.010969	.0003293	.000998
%RSD	.9309358	.0640450	1.510482
#1	1.169030	.5137143	-.064957
#2	1.175424	.5142524	-.066872
#3	1.190401	.5143121	-.066401

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3108.951	75540.25	16637.28	2043.116	4107.235
Stddev	12.875	292.86	54.46	5.579	18.285
%RSD	.4141422	.3876825	.3273141	.2730416	.4451808
#1	3103.285	75785.41	16589.77	2045.305	4103.042
#2	3123.687	75215.96	16625.36	2036.775	4127.252
#3	3099.880	75619.37	16696.71	2047.268	4091.412

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49A Acquired: 5/13/2025 19:58:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7125653	1.844599	1.014241	1.578839	.6733820	156.3341	.5667764
Stddev	.0075052	.010693	.002478	.004924	.0023169	.2153	.0012208
%RSD	1.053268	.5796724	.2443276	.3118637	.3440747	.1377033	.2153841
#1	.7181566	1.853082	1.017099	1.576656	.6738481	156.5821	.5673903
#2	.7040355	1.848127	1.012694	1.575385	.6708675	156.2244	.5653705
#3	.7155039	1.832588	1.012930	1.584477	.6754305	156.1958	.5675683

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1720006	.1737470	10.42203	.4990945	.2777522	.4349181	261.1643
Stddev	.0008575	.0005561	.01139	.0008159	.0006360	.0008381	1.6592
%RSD	.4985524	.3200751	.1093061	.1634681	.2289981	.1927089	.6352943
#1	.1723669	.1731262	10.41719	.5000213	.2770807	.4347491	261.6741
#2	.1726141	.1741996	10.41386	.4984846	.2778304	.4341773	259.3101
#3	.1710208	.1739152	10.43504	.4987777	.2783455	.4358278	262.5088

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.196704	33.88167	.6263049	.0648293	4.449338	.5156948	.6387763
Stddev	.003937	.04892	.0015110	.0001422	.036948	.0016698	.0013327
%RSD	.0938162	.1443880	.2412508	.2194021	.8304102	.3237988	.2086307
#1	4.200383	33.89168	.6250471	.0648443	4.469362	.5176214	.6400977
#2	4.197178	33.92480	.6258867	.0649634	4.406700	.5147985	.6387987
#3	4.192552	33.82851	.6279809	.0646801	4.471950	.5146645	.6374326

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.20264	.2631154	.3481282	.6418373	2.120488	9.131222	11.11219
Stddev	.08493	.0009420	.0004169	.0032340	.005658	.028031	.02715
%RSD	.6960076	.3580306	.1197532	.5038638	.2668239	.3069763	.2443201
#1	12.23603	.2627320	.3478817	.6385555	2.127021	9.129657	11.08574
#2	12.10609	.2624256	.3478933	.6419352	2.117255	9.104006	11.11082
#3	12.26581	.2641887	.3486095	.6450213	2.117187	9.160002	11.13999

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1983-49A Acquired: 5/13/2025 19:58:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5203228	.4436410	-.028584
Stddev	.0057279	.0009686	.001326
%RSD	1.100840	.2183298	4.639409
#1	.5268179	.4440383	-.028926
#2	.5181567	.4425369	-.027120
#3	.5159939	.4443478	-.029705

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3092.351	74919.12	15018.15	2028.202	4174.829
Stddev	1.202	239.67	38.61	7.547	1.863
%RSD	.0388658	.3199090	.2570911	.3721016	.0446167
#1	3092.118	74894.96	15013.48	2029.546	4175.047
#2	3093.652	75169.96	14982.09	2034.987	4176.573
#3	3091.283	74692.45	15058.89	2020.074	4172.867

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-01 Acquired: 5/13/2025 20:02:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0383553	-.002858	.0649183	-.038058	-.006000	129.3794	.5697802
Stddev	.0039966	.001227	.0024185	.004623	.003836	.0154	.0018569
%RSD	10.41984	42.93712	3.725391	12.14737	63.92806	.0119194	.3258904
#1	.0381000	-.003969	.0656388	-.041769	-.008398	129.3732	.5692927
#2	.0424733	-.003063	.0622215	-.032879	-.001576	129.3969	.5718321
#3	.0344924	-.001541	.0668947	-.039525	-.008027	129.3680	.5682156

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0080287	-.002695	41.56207	.3005549	.1418235	.3559790	268.1827
Stddev	.0000737	.000139	.07584	.0006652	.0001883	.0006224	.2226
%RSD	.9181908	5.166182	.1824653	.2213268	.1327990	.1748545	.0830118
#1	.0080416	-.002587	41.53771	.2999722	.1419433	.3554352	268.4179
#2	.0080951	-.002852	41.64709	.3004129	.1416064	.3566579	268.1549
#3	.0079494	-.002647	41.50140	.3012797	.1419208	.3558439	267.9752

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.069651	61.15161	.2517833	.0028216	1.472875	.4905520	.7239463
Stddev	.013742	.12745	.0004910	.0003438	.005757	.0030739	.0008523
%RSD	.2710651	.2084115	.1949922	12.18642	.3908419	.6266298	.1177246
#1	5.057130	61.02359	.2512588	.0030639	1.479516	.4896754	.7232951
#2	5.084353	61.27848	.2522318	.0029729	1.469802	.4939690	.7236328
#3	5.067470	61.15276	.2518592	.0024281	1.469307	.4880116	.7249109

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.495891	.0324383	.0023784	-.000261	6.612294	2.803373	7.225304
Stddev	.037791	.0017010	.0008198	.001448	.007622	.009811	.033067
%RSD	.3979685	5.243734	34.46785	555.6417	.1152720	.3499721	.4576490
#1	9.539483	.0333834	.0028439	.001155	6.606122	2.814187	7.189529
#2	9.472386	.0304747	.0014318	-.001739	6.620813	2.795042	7.254746
#3	9.475804	.0334569	.0028593	-.000197	6.609945	2.800891	7.231637

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-01 Acquired: 5/13/2025 20:02:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.220499	.2548916	-.146984
Stddev	.013034	.0010223	.000262
%RSD	1.067886	.4010788	.1780349
#1	1.217354	.2547752	-.147272
#2	1.234818	.2559672	-.146761
#3	1.209326	.2539325	-.146920

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3099.990	75971.12	15201.44	2046.571	4129.822
Stddev	3.630	101.75	66.31	6.178	2.120
%RSD	.1170856	.1339359	.4362405	.3018649	.0513385
#1	3101.517	76046.88	15268.74	2052.448	4131.903
#2	3095.847	75855.46	15136.16	2040.131	4127.664
#3	3102.607	76011.01	15199.42	2047.134	4129.898

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV07 Acquired: 5/13/2025 20:06:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.853141	5.004596	4.684099	4.917917	4.912678	9.611061	9.253003
Stddev	.011586	.011426	.006881	.022603	.025698	.030893	.131319
%RSD	.2387351	.2283136	.1469091	.4596074	.5231010	.3214308	1.419207
#1	4.843465	5.017547	4.677989	4.896852	4.889267	9.596274	9.397160
#2	4.849979	5.000300	4.682753	4.915102	4.908593	9.646568	9.140195
#3	4.865980	4.995940	4.691554	4.941795	4.940175	9.590341	9.221653

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2466749	2.319122	22.86114	.9521317	2.342409	1.217124	4.587797
Stddev	.0010499	.006500	.06022	.0029441	.008056	.005588	.036610
%RSD	.4256198	.2802838	.2633974	.3092066	.3439382	.4591360	.7979783
#1	.2456779	2.315173	22.92889	.9509757	2.338524	1.213732	4.629782
#2	.2477707	2.315568	22.84078	.9554783	2.337031	1.214066	4.562537
#3	.2465760	2.326624	22.81374	.9499411	2.351672	1.223573	4.571073

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.306670	22.92459	2.338808	1.220294	23.12597	2.336469	2.443615
Stddev	.006441	.01275	.008178	.001587	.10644	.005212	.005641
%RSD	.2792408	.0556362	.3496553	.1300432	.4602755	.2230634	.2308289
#1	2.313090	22.93924	2.331940	1.219299	23.24017	2.332210	2.445942
#2	2.306711	22.91594	2.336630	1.222124	23.10823	2.342281	2.447720
#3	2.300208	22.91860	2.347854	1.219458	23.02952	2.334918	2.437184

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.28153	4.948909	4.878498	4.680366	4.676834	4.602586	4.734633
Stddev	.10984	.027922	.015394	.010713	.012475	.012594	.005032
%RSD	.4718075	.5642120	.3155439	.2288859	.2667398	.2736312	.1062872
#1	23.40329	4.920057	4.868419	4.673357	4.684245	4.615437	4.728967
#2	23.25143	4.975799	4.870858	4.675044	4.683827	4.602054	4.738581
#3	23.18988	4.950871	4.896218	4.692698	4.662432	4.590266	4.736352

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV07 Acquired: 5/13/2025 20:06:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.743934	4.835902	4.686713
Stddev	.022994	.014454	.018214
%RSD	.4847090	.2988825	.3886330
#1	4.727070	4.844189	4.695882
#2	4.734605	4.844304	4.665737
#3	4.770126	4.819212	4.698521

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2769.132	66817.50	13002.91	1810.331	4243.284
Stddev	12.320	177.11	50.09	11.769	16.626
%RSD	.4448908	.2650636	.3851995	.6501168	.3918282
#1	2778.565	66673.79	13014.23	1802.164	4256.463
#2	2773.636	66763.34	12948.14	1805.007	4248.786
#3	2755.194	67015.36	13046.37	1823.821	4224.604

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB07 Acquired: 5/13/2025 20:10:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000412	.0002240	-.000020	.0015565	-.000887	.0082024	-.010870
Stddev	.002102	.0010066	.001339	.0007854	.002298	.0021100	.001730
%RSD	510.7427	449.4531	6720.713	50.45846	259.2280	25.72392	15.91649
#1	-.002268	-.000917	-.000285	.0007398	-.003107	.0104807	-.012482
#2	-.000837	.000987	.001432	.0016233	.001482	.0078110	-.009042
#3	.001871	.000601	-.001207	.0023063	-.001034	.0063155	-.011086

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000083	.0000806	.0056684	-.000393	.0002401	-.000132	.0034467
Stddev	.000056	.0000873	.0068240	.000234	.0003300	.000494	.0026375
%RSD	67.61326	108.3071	120.3869	59.49718	137.4425	373.8900	76.52227
#1	-.000045	-.000016	.0125190	-.000610	-.000120	.000148	.0008657
#2	-.000056	.000104	.0056150	-.000423	.000311	-.000702	.0061374
#3	-.000147	.000154	-.001129	-.000146	.000529	.000158	.0033371

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000009	.0068570	.0000054	-.000202	-.030477	-.000826	.0000648
Stddev	.0002884	.0135923	.0003296	.000060	.006498	.000296	.0002070
%RSD	32071.52	198.2250	6102.882	29.66521	21.32063	35.81320	319.5514
#1	.0001739	.0115977	.0002585	-.000191	-.030772	-.000579	-.000173
#2	.0001609	-.008471	.0001251	-.000148	-.036823	-.000746	.000159
#3	-.000332	.017444	-.000367	-.000266	-.023837	-.001154	.000208

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0620174	-.000931	.0002515	.0000457	.0008910	.0029103	.0034049
Stddev	.0265261	.000661	.0000914	.0008899	.0003611	.0028371	.0023994
%RSD	42.77211	70.96293	36.34553	1945.874	40.52485	97.48440	70.46794
#1	.0333206	-.000750	.0001484	-.000976	.0013012	-.000111	.0011291
#2	.0856398	-.000380	.0003225	.000458	.0006212	.003324	.0031744
#3	.0670918	-.001664	.0002836	.000654	.0007507	.005518	.0059113

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB07 Acquired: 5/13/2025 20:10:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0009249	-.001989	.0000802
Stddev	.0031721	.000620	.0000272
%RSD	342.9560	31.17153	33.92040
#1	-.000048	-.002408	.0000573
#2	-.001647	-.001277	.0001103
#3	.004469	-.002282	.0000729

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2860.606	69710.09	14568.72	1890.725	4532.504
Stddev	8.327	291.18	43.05	10.871	13.447
%RSD	.2910964	.4177070	.2955236	.5749583	.2966836
#1	2869.412	70013.56	14608.93	1902.456	4535.892
#2	2859.546	69683.73	14523.30	1888.727	4543.932
#3	2852.860	69432.99	14573.94	1880.991	4517.686

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-03 Acquired: 5/13/2025 20:14:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0410649	.0022748	.0822854	-.040191	-.003620	114.5531	.7719651
Stddev	.0019571	.0021223	.0016342	.004318	.002330	.0787	.0037998
%RSD	4.765753	93.29628	1.986022	10.74421	64.35523	.0687305	.4922271
#1	.0422489	.0025758	.0810022	-.037339	-.002593	114.4626	.7746276
#2	.0388059	.0042304	.0841252	-.045159	-.001980	114.6058	.7736542
#3	.0421398	.0000180	.0817287	-.038073	-.006287	114.5909	.7676136

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0073063	-.004336	35.70230	.2466411	.1296987	.3559121	252.5068
Stddev	.0001590	.000226	.05453	.0013004	.0003465	.0011651	.5752
%RSD	2.176817	5.209299	.1527236	.5272516	.2671242	.3273454	.2277769
#1	.0071506	-.004123	35.74833	.2454731	.1295365	.3550788	252.7319
#2	.0074685	-.004573	35.71649	.2480423	.1294631	.3554141	252.9354
#3	.0072998	-.004311	35.64208	.2464078	.1300965	.3572434	251.8532

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.425224	43.66340	.2086446	.0036055	1.538968	.4492576	1.022313
Stddev	.014786	.04673	.0005060	.0000663	.014723	.0021000	.003382
%RSD	.2725433	.1070328	.2425024	1.840034	.9566645	.4674288	.3308324
#1	5.436946	43.71088	.2082831	.0036797	1.522213	.4516670	1.019147
#2	5.430113	43.61745	.2084278	.0035848	1.544857	.4482900	1.021916
#3	5.408612	43.66187	.2092228	.0035520	1.549835	.4478159	1.025876

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.374052	.0514810	.0025141	-.002751	5.429602	2.506369	6.856871
Stddev	.008303	.0007817	.0004965	.002448	.008577	.007260	.011686
%RSD	.1302612	1.518466	19.74679	88.96333	.1579660	.2896762	.1704254
#1	6.373656	.0523629	.0030682	-.003506	5.432908	2.498990	6.864006
#2	6.382546	.0512068	.0021098	-.004733	5.436034	2.513504	6.843385
#3	6.365955	.0508734	.0023644	-.000015	5.419864	2.506614	6.863221

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-03 Acquired: 5/13/2025 20:14:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8388996	.2213048	-.126298
Stddev	.0024965	.0012628	.000175
%RSD	.2975876	.5706258	.1382106
#1	.8393336	.2206046	-.126342
#2	.8362146	.2227626	-.126446
#3	.8411506	.2205473	-.126105

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3072.771	75368.92	15709.60	2030.916	4126.402
Stddev	9.429	72.44	4.23	9.420	8.503
%RSD	.3068695	.0961114	.0269203	.4638515	.2060563
#1	3080.895	75443.34	15711.83	2038.241	4131.620
#2	3074.986	75298.65	15712.25	2034.219	4130.997
#3	3062.431	75364.78	15704.72	2020.289	4116.591

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-05 Acquired: 5/13/2025 20:19:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0270175	.0024255	.0610715	-.040259	-.003238	121.2413	.4024866
Stddev	.0029216	.0012302	.0008705	.002926	.001575	.3177	.0023078
%RSD	10.81379	50.72052	1.425376	7.268364	48.64296	.2620776	.5733765
#1	.0265052	.0030014	.0610249	-.037179	-.002126	121.0167	.4037012
#2	.0243859	.0010129	.0619644	-.040595	-.002547	121.1022	.3998252
#3	.0301614	.0032621	.0602252	-.043002	-.005040	121.6048	.4039333

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070558	-.004724	35.72577	.2177304	.1404946	.3495587	257.0177
Stddev	.0000395	.000140	.11629	.0009048	.0004725	.0008640	1.4043
%RSD	.5594493	2.961434	.3255094	.4155637	.3363145	.2471541	.5463754
#1	.0070683	-.004883	35.64799	.2181034	.1401176	.3485931	257.1233
#2	.0070116	-.004670	35.66987	.2166987	.1403415	.3502583	255.5636
#3	.0070875	-.004619	35.85946	.2183890	.1410246	.3498249	258.3662

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.774289	45.63484	.2168459	.0037967	1.816346	.4572292	.5291446
Stddev	.009057	.16069	.0007431	.0003099	.024105	.0019291	.0030593
%RSD	.2399556	.3521180	.3427056	8.161782	1.327113	.4219190	.5781591
#1	3.769553	45.50146	.2164576	.0037661	1.806865	.4555581	.5283239
#2	3.768583	45.58983	.2163773	.0035032	1.798422	.4567891	.5325306
#3	3.784732	45.81323	.2177027	.0041207	1.843750	.4593404	.5265794

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.276731	.0449492	.0002983	-.002363	5.832774	2.746513	6.475702
Stddev	.016604	.0012035	.0004286	.000518	.020413	.022638	.005571
%RSD	.3146604	2.677377	143.7110	21.93101	.3499755	.8242529	.0860285
#1	5.291570	.0443838	.0005994	-.002953	5.825544	2.746273	6.475822
#2	5.258798	.0441325	.0004878	-.001981	5.816960	2.723996	6.470072
#3	5.279826	.0463312	-.000192	-.002155	5.855818	2.769270	6.481212

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-05 Acquired: 5/13/2025 20:19:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2415787	.2256629	-.125513
Stddev	.0116926	.0016666	.000802
%RSD	4.840071	.7385387	.6392828
#1	.2347943	.2259541	-.125617
#2	.2348617	.2238699	-.124664
#3	.2550801	.2271647	-.126259

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3008.735	74278.09	15410.72	1987.535	4098.864
Stddev	4.825	69.13	53.44	15.727	10.999
%RSD	.1603639	.0930648	.3467947	.7912592	.2683445
#1	3011.492	74273.69	15462.66	2000.924	4095.960
#2	3011.549	74349.31	15355.89	1970.216	4111.023
#3	3003.164	74211.26	15413.61	1991.465	4089.607

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-07 Acquired: 5/13/2025 20:23:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0275421	-.001354	.0588746	-.038117	-.004768	127.5613	.4371415
Stddev	.0073224	.002891	.0002348	.004784	.001179	.1155	.0015988
%RSD	26.58626	213.5570	.3988234	12.55039	24.73795	.0905794	.3657333
#1	.0356970	-.000014	.0586967	-.033744	-.003722	127.6931	.4382618
#2	.0215306	.000625	.0587864	-.037381	-.004535	127.4774	.4378520
#3	.0253987	-.004672	.0591407	-.043227	-.006046	127.5135	.4353106

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072026	-.003073	34.44090	.2604026	.1429618	.3765808	264.4399
Stddev	.0001295	.000176	.07678	.0006437	.0007340	.0012796	1.0593
%RSD	1.798443	5.733366	.2229331	.2471909	.5134264	.3397898	.4005984
#1	.0070864	-.002964	34.45092	.2598926	.1421694	.3762183	263.4086
#2	.0073422	-.003276	34.51218	.2601893	.1430976	.3755215	265.5252
#3	.0071792	-.002979	34.35960	.2611258	.1436185	.3780025	264.3859

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.265270	50.91041	.2351268	.0042201	1.818111	.4978178	.4516662
Stddev	.009669	.00947	.0015772	.0002805	.002080	.0027107	.0012260
%RSD	.2267006	.0186094	.6708035	6.646357	.1144020	.5445158	.2714362
#1	4.267233	50.89950	.2334029	.0039038	1.816265	.5009478	.4528183
#2	4.273808	50.91522	.2354800	.0044387	1.820364	.4962373	.4503778
#3	4.254770	50.91652	.2364975	.0043178	1.817703	.4962683	.4518024

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.663887	.0323338	.0004580	.0322124	8.054180	4.569376	5.748645
Stddev	.011644	.0037363	.0002382	.0022432	.017714	.017617	.058039
%RSD	.2055909	11.55554	52.01544	6.963755	.2199305	.3855377	1.009616
#1	5.672631	.0288134	.0002194	.0303333	8.051649	4.554382	5.686686
#2	5.668361	.0362540	.0006959	.0346958	8.073023	4.588778	5.757503
#3	5.650669	.0319339	.0004587	.0316080	8.037869	4.564967	5.801746

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-07 Acquired: 5/13/2025 20:23:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2764670	.2271657	-.137301
Stddev	.0046593	.0013512	.001020
%RSD	1.685286	.5948262	.7431954
#1	.2817125	.2266070	-.136162
#2	.2748800	.2287067	-.138131
#3	.2728086	.2261835	-.137611

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3041.315	76977.40	15470.21	2031.793	4144.750
Stddev	6.484	259.17	95.16	15.026	14.999
%RSD	.2131813	.3366853	.6151028	.7395406	.3618916
#1	3046.174	76889.74	15380.39	2030.154	4158.760
#2	3043.818	77269.04	15569.93	2047.571	4146.563
#3	3033.953	76773.43	15460.32	2017.654	4128.926

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-09 Acquired: 5/13/2025 20:27:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0269879	-.000941	.0630861	-.044974	-.004849	124.4415	.4931199
Stddev	.0011347	.001696	.0026767	.005899	.003317	.2203	.0017644
%RSD	4.204551	180.0925	4.242851	13.11610	68.40102	.1770700	.3577941
#1	.0262901	.000197	.0606458	-.046690	-.005578	124.6776	.4930487
#2	.0263763	-.002890	.0659488	-.038408	-.001228	124.4054	.4949188
#3	.0282972	-.000131	.0626635	-.049825	-.007741	124.2414	.4913922

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0076523	-.001254	40.99797	.2734279	.1456362	.4053129	252.5574
Stddev	.0001290	.000191	.10147	.0005638	.0003318	.0004329	1.3639
%RSD	1.685196	15.23714	.2475024	.2061811	.2278322	.1067962	.5400382
#1	.0077168	-.001035	41.07189	.2727800	.1453728	.4057992	250.9915
#2	.0075038	-.001388	41.03973	.2736978	.1460088	.4049697	253.4861
#3	.0077362	-.001339	40.88228	.2738060	.1455270	.4051698	253.1945

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.143445	53.38293	.2307279	.0016293	2.524520	.4618080	.4621832
Stddev	.014684	.07785	.0002780	.0000651	.019309	.0013795	.0022586
%RSD	.2854873	.1458303	.1204978	3.997036	.7648706	.2987250	.4886752
#1	5.150930	53.47080	.2304529	.0016975	2.502495	.4622564	.4599612
#2	5.152877	53.35540	.2307218	.0016227	2.538540	.4629075	.4644766
#3	5.126527	53.32258	.2310089	.0015677	2.532523	.4602600	.4621119

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.802073	.0295094	.0017432	-.006000	7.540897	3.071051	6.369127
Stddev	.044654	.0017899	.0002741	.000947	.013320	.016487	.016360
%RSD	.7696249	6.065565	15.72175	15.78909	.1766304	.5368663	.2568704
#1	5.751968	.0274617	.0020554	-.005672	7.551884	3.058166	6.355365
#2	5.837665	.0307764	.0015422	-.005260	7.544723	3.089631	6.387216
#3	5.816587	.0302900	.0016319	-.007068	7.526083	3.065355	6.364799

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1986-09 Acquired: 5/13/2025 20:27:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3140225	.2193422	-.083837
Stddev	.0079584	.0001193	.001605
%RSD	2.534344	.0544090	1.914386
#1	.3077185	.2192959	-.081998
#2	.3229651	.2192530	-.084557
#3	.3113838	.2194778	-.084956

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3081.258	76562.95	14906.83	2054.483	4120.446
Stddev	3.706	275.15	79.63	10.663	7.423
%RSD	.1202621	.3593733	.5341532	.5190104	.1801603
#1	3084.665	76792.45	14837.71	2062.269	4128.611
#2	3077.313	76257.93	14888.88	2042.330	4114.103
#3	3081.797	76638.47	14993.90	2058.850	4118.624

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-01 Acquired: 5/13/2025 20:31:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0312254	.0019912	.1632285	-.022518	-.003438	99.55772	.5418285
Stddev	.0018190	.0013671	.0023023	.002002	.001028	.19847	.0004529
%RSD	5.825477	68.65923	1.410455	8.892619	29.89355	.1993524	.0835819
#1	.0328454	.0032527	.1628338	-.024827	-.003061	99.38597	.5419288
#2	.0315733	.0021824	.1657026	-.021472	-.002652	99.51221	.5413339
#3	.0292576	.0005385	.1611491	-.021255	-.004601	99.77500	.5422228

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0084020	-.002154	9.654956	.1927303	.0571963	.1427065	141.8569
Stddev	.0000938	.000188	.033097	.0005430	.0002595	.0004147	.2595
%RSD	1.116147	8.719184	.3427982	.2817310	.4536814	.2906039	.1829278
#1	.0083010	-.002340	9.622392	.1926456	.0569013	.1428756	142.1533
#2	.0084187	-.002158	9.653913	.1933106	.0572985	.1430099	141.7471
#3	.0084863	-.001965	9.688562	.1922346	.0573892	.1422339	141.6705

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5085216	15.55928	.1140015	.0013479	1.628636	.2925605	.3645089
Stddev	.0022006	.01465	.0006269	.0002250	.002717	.0013138	.0011237
%RSD	.4327485	.0941717	.5499430	16.69228	.1668366	.4490698	.3082707
#1	.5060224	15.56446	.1142971	.0014221	1.631614	.2917815	.3650719
#2	.5101688	15.54274	.1144260	.0015264	1.628003	.2918227	.3652397
#3	.5093737	15.57063	.1132814	.0010952	1.626291	.2940774	.3632150

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.126781	.0197221	.0022492	.0149945	1.811824	3.098770	1.261344
Stddev	.030884	.0017524	.0001694	.0003766	.003576	.005272	.004083
%RSD	.6024016	8.885679	7.531348	2.511544	.1973798	.1701367	.3236778
#1	5.161798	.0217379	.0021288	.0149479	1.809494	3.099102	1.263087
#2	5.115116	.0188677	.0024429	.0153922	1.810037	3.093340	1.256679
#3	5.103428	.0185607	.0021760	.0146433	1.815942	3.103868	1.264266

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-01 Acquired: 5/13/2025 20:31:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7624244	.1752143	-.011052
Stddev	.0053671	.0005821	.000475
%RSD	.7039551	.3322339	4.294364
#1	.7563481	.1756710	-.011590
#2	.7665185	.1745588	-.010875
#3	.7644066	.1754130	-.010692

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3257.439	81325.18	16455.92	2202.400	4257.056
Stddev	8.520	216.58	26.81	9.004	15.512
%RSD	.2615420	.2663103	.1629227	.4088467	.3643942
#1	3267.252	81169.44	16483.49	2192.971	4274.701
#2	3253.128	81233.60	16454.33	2203.320	4250.901
#3	3251.936	81572.51	16429.95	2210.910	4245.565

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-02 Acquired: 5/13/2025 20:35:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0652211	.0079588	.2005691	-.025479	-.004412	49.85754	.2858274
Stddev	.0018494	.0017299	.0015059	.002075	.002710	.02980	.0015295
%RSD	2.835597	21.73575	.7507920	8.145785	61.40970	.0597763	.5351212
#1	.0667709	.0067643	.1996833	-.023960	-.006785	49.89190	.2843200
#2	.0631738	.0071695	.1997162	-.024632	-.001460	49.84210	.2873782
#3	.0657185	.0099426	.2023079	-.027844	-.004992	49.83863	.2857841

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070149	-.002495	5.870695	.2380774	.0186006	.2304661	145.5554
Stddev	.0000293	.000421	.009477	.0048527	.0001561	.0010278	2.1479
%RSD	.4180875	16.86020	.1614327	2.038291	.8394405	.4459694	1.475630
#1	.0070051	-.002322	5.859865	.2350749	.0187644	.2306327	144.2611
#2	.0070479	-.002975	5.877472	.2436759	.0185839	.2293651	148.0347
#3	.0069918	-.002188	5.874748	.2354815	.0184535	.2314003	144.3703

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3955076	8.622829	.0421467	-.000964	.7607435	.2203365	.1338277
Stddev	.0008315	.015705	.0001099	.000200	.0190447	.0014414	.0029067
%RSD	.2102263	.1821300	.2607328	20.79926	2.503436	.6541650	2.171985
#1	.3957616	8.633398	.0420263	-.000758	.7528664	.2186860	.1319486
#2	.3961825	8.604783	.0422416	-.001158	.7824631	.2209759	.1371757
#3	.3945788	8.630306	.0421723	-.000974	.7469010	.2213475	.1323588

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.519353	.0274520	-.001466	.0075712	1.417041	3.783945	.3972134
Stddev	.147086	.0016299	.000107	.0002791	.004668	.043475	.0018732
%RSD	1.956093	5.937404	7.280995	3.686784	.3294385	1.148926	.4715903
#1	7.451386	.0277055	-.001460	.0078658	1.414668	3.767042	.3991354
#2	7.688131	.0289404	-.001362	.0073107	1.414037	3.833333	.3953931
#3	7.418542	.0257102	-.001575	.0075372	1.422420	3.751460	.3971118

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-02 Acquired: 5/13/2025 20:35:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4401748	.1164677	-.070542
Stddev	.0085306	.0010846	.002127
%RSD	1.938009	.9312118	3.014847
#1	.4457559	.1154274	-.069270
#2	.4303550	.1175917	-.072997
#3	.4444136	.1163839	-.069358

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3177.085	78593.44	14596.10	2130.750	4342.934
Stddev	4.985	1189.56	56.72	33.691	6.693
%RSD	.1569173	1.513561	.3885707	1.581183	.1541126
#1	3179.298	79306.55	14655.46	2150.600	4348.598
#2	3180.581	77220.20	14590.39	2091.850	4344.655
#3	3171.376	79253.59	14542.46	2149.801	4335.549

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03 Acquired: 5/13/2025 20:39:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0187348	.0029236	.0659274	-.029390	-.003184	131.3323	.6163953
Stddev	.0015361	.0020021	.0008337	.002840	.001725	.1286	.0011884
%RSD	8.199150	68.47910	1.264614	9.662779	54.15741	.0979563	.1928015
#1	.0178544	.0006119	.0649745	-.030900	-.002095	131.4607	.6172823
#2	.0178414	.0040640	.0662854	-.026115	-.005173	131.2034	.6168585
#3	.0205085	.0040950	.0665224	-.031157	-.002285	131.3328	.6150450

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0103042	.0014054	2.431043	.0951040	.0533455	.0405729	176.4687
Stddev	.0000648	.0004795	.007133	.0005565	.0003596	.0009995	1.6155
%RSD	.6291719	34.12165	.2934128	.5851011	.6741837	2.463400	.9154805
#1	.0102835	.0008844	2.434576	.0957033	.0529406	.0395633	178.3034
#2	.0102522	.0015034	2.422834	.0950048	.0534678	.0405935	175.8438
#3	.0103769	.0018284	2.435721	.0946037	.0536280	.0415620	175.2590

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2876454	3.444695	.0680155	.0009555	1.639223	.2062418	.1811618
Stddev	.0005433	.009283	.0008793	.0002853	.026210	.0006189	.0005680
%RSD	.1888937	.2694787	1.292820	29.85694	1.598929	.3001022	.3135539
#1	.2879834	3.444576	.0686838	.0012847	1.669442	.2069301	.1818177
#2	.2879341	3.435473	.0670194	.0007800	1.622669	.2057310	.1808388
#3	.2870186	3.454037	.0683434	.0008019	1.625559	.2060643	.1808289

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.312531	.0116512	-.001441	.0024152	3.006023	3.125153	2.071494
Stddev	.037249	.0020723	.000505	.0008961	.005827	.015074	.010576
%RSD	1.610756	17.78636	35.03483	37.10364	.1938441	.4823582	.5105382
#1	2.340789	.0138008	-.000902	.0022942	3.012633	3.134078	2.064551
#2	2.326485	.0114869	-.001903	.0015858	3.003808	3.133633	2.066266
#3	2.270320	.0096659	-.001516	.0033658	3.001628	3.107749	2.083666

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03 Acquired: 5/13/2025 20:39:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.622357	.0845294	-.150834
Stddev	.013794	.0010884	.001510
%RSD	.8502487	1.287584	1.000811
#1	1.625202	.0849514	-.152528
#2	1.607363	.0853435	-.150344
#3	1.634507	.0832932	-.149631

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3734.673	90750.06	18017.81	2494.348	4275.581
Stddev	14.480	524.28	24.63	14.819	15.039
%RSD	.3877228	.5777238	.1367028	.5940988	.3517506
#1	3744.996	90145.02	18039.86	2477.238	4287.274
#2	3740.902	91034.60	18022.33	2502.661	4280.853
#3	3718.120	91070.55	17991.23	2503.143	4258.615

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03DUP Acquired: 5/13/2025 20:43:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0235235	.0032434	.0758925	-.024167	-.003409	145.7978	.7522564
Stddev	.0013386	.0013014	.0014087	.003635	.002327	.1796	.0013969
%RSD	5.690351	40.12510	1.856113	15.03989	68.25191	.1232012	.1856986
#1	.0250612	.0034582	.0758681	-.028330	-.003406	145.6873	.7506435
#2	.0228900	.0044241	.0744962	-.022551	-.005738	146.0050	.7530412
#3	.0226193	.0018480	.0773132	-.021620	-.001084	145.7009	.7530844

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0106901	.0019380	2.616427	.0945664	.0584515	.0398767	193.6960
Stddev	.0000434	.0000857	.010573	.0003790	.0005031	.0003646	.6056
%RSD	.4057674	4.420025	.4040899	.4007772	.8606192	.9143204	.3126310
#1	.0107370	.0019599	2.627675	.0943011	.0584604	.0397895	193.3593
#2	.0106515	.0018435	2.614915	.0950005	.0579441	.0395636	194.3950
#3	.0106819	.0020106	2.606692	.0943976	.0589501	.0402769	193.3335

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3376070	3.973977	.0777127	.0022968	1.984385	.2351381	.1946484
Stddev	.0010997	.004217	.0007793	.0000889	.009979	.0014127	.0015351
%RSD	.3257470	.1061067	1.002831	3.872556	.5028621	.6008023	.7886304
#1	.3365973	3.976926	.0770959	.0022540	1.977874	.2336667	.1942999
#2	.3374447	3.969148	.0774536	.0022373	1.995873	.2352639	.1963278
#3	.3387788	3.975859	.0785885	.0023991	1.979407	.2364837	.1933176

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.821550	.0236925	-.001621	.0139535	3.563425	5.038861	2.321015
Stddev	.035440	.0009310	.000229	.0005565	.008355	.015492	.009729
%RSD	1.256060	3.929492	14.14278	3.988238	.2344634	.3074569	.4191678
#1	2.797377	.0247135	-.001533	.0143265	3.558743	5.052625	2.316246
#2	2.862233	.0234736	-.001449	.0133139	3.573072	5.041875	2.314591
#3	2.805040	.0228905	-.001881	.0142202	3.558462	5.022083	2.332208

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03DUP Acquired: 5/13/2025 20:43:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.024655	.0937029	-.164910
Stddev	.011333	.0006681	.000445
%RSD	.5597539	.7130436	.2700740
#1	2.026750	.0942010	-.164660
#2	2.012420	.0939640	-.165424
#3	2.034794	.0929436	-.164646

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3867.094	93875.18	19383.37	2594.300	4268.006
Stddev	10.491	219.54	29.58	10.135	11.259
%RSD	.2712896	.2338631	.1525984	.3906733	.2637994
#1	3871.659	93777.45	19349.21	2587.495	4275.369
#2	3874.529	93721.46	19400.70	2589.456	4273.604
#3	3855.094	94126.61	19400.19	2605.948	4255.046

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03LX5 Acquired: 5/13/2025 20:48:02 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044957	.0028588	.0139920	-.008181	-.001995	32.17577	.1480753
Stddev	.0015226	.0006064	.0025760	.000931	.002443	.05327	.0006301
%RSD	33.86829	21.21241	18.41048	11.37441	122.4269	.1655598	.4255282
#1	.0062494	.0022068	.0151624	-.009253	-.003973	32.20284	.1483856
#2	.0037273	.0029635	.0157750	-.007717	-.002748	32.11440	.1484901
#3	.0035104	.0034060	.0110386	-.007574	.000735	32.21006	.1473503

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024253	-.001910	.6315601	.0233504	.0102827	.0095292	44.26623
Stddev	.0000502	.000107	.0095882	.0003363	.0002531	.0003251	.07545
%RSD	2.070718	5.610770	1.518177	1.440042	2.461631	3.411747	.1704406
#1	.0024606	-.001899	.6339722	.0234906	.0101343	.0099001	44.18590
#2	.0023678	-.002022	.6397120	.0229667	.0101389	.0092932	44.33559
#3	.0024476	-.001808	.6209962	.0235938	.0105750	.0093944	44.27719

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0705534	.8444256	.0134216	.0002865	.3040498	.0498038	.0453309
Stddev	.0004125	.0033969	.0002478	.0001649	.0066521	.0004816	.0009622
%RSD	.5845865	.4022723	1.846083	57.54274	2.187848	.9670125	2.122636
#1	.0701413	.8406851	.0131726	.0003356	.2979395	.0495986	.0450983
#2	.0709662	.8452733	.0136681	.0001027	.3111360	.0494587	.0463881
#3	.0705528	.8473183	.0134242	.0004212	.3030739	.0503540	.0445064

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5822399	-.004961	-.000539	-.001956	.7508845	1.337905	.4060929
Stddev	.0085470	.000245	.000142	.000663	.0018261	.006578	.0012516
%RSD	1.467958	4.936684	26.28645	33.89195	.2431914	.4916484	.3082039
#1	.5747041	-.004679	-.000687	-.002280	.7519108	1.344000	.4047620
#2	.5915269	-.005089	-.000525	-.002396	.7487761	1.338783	.4072462
#3	.5804887	-.005116	-.000404	-.001194	.7519664	1.330932	.4062706

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03LX5 Acquired: 5/13/2025 20:48:02 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3174798	.0192104	-.037969
Stddev	.0027653	.0010309	.000104
%RSD	.8710182	5.366360	.2737323
#1	.3206099	.0182484	-.037851
#2	.3164616	.0190841	-.038046
#3	.3153680	.0202986	-.038009

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3015.520	72763.64	14771.63	1991.952	4440.157
Stddev	6.189	81.76	58.04	6.710	7.610
%RSD	.2052500	.1123580	.3929434	.3368701	.1713972
#1	3020.010	72853.42	14795.95	1994.329	4446.497
#2	3018.089	72744.02	14813.56	1984.378	4442.257
#3	3008.459	72693.48	14705.38	1997.151	4431.717

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV08 Acquired: 5/13/2025 20:52:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.906950	4.993935	4.719102	4.992924	4.936454	9.519742	9.502001
Stddev	.016705	.045008	.015817	.014622	.014489	.022673	.112431
%RSD	.3404418	.9012583	.3351782	.2928609	.2935029	.2381703	1.183239
#1	4.924699	5.028882	4.720274	5.006082	4.949876	9.520799	9.587948
#2	4.891533	4.943148	4.702731	4.977182	4.921094	9.541867	9.543294
#3	4.904618	5.009775	4.734301	4.995509	4.938392	9.496558	9.374762

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2334321	2.350336	22.86734	.9535416	2.359944	1.223451	4.887037
Stddev	.0018526	.005323	.07116	.0041511	.005695	.002258	.054419
%RSD	.7936428	.2264946	.3111705	.4353389	.2413202	.1845603	1.113533
#1	.2327839	2.349998	22.83431	.9551383	2.358745	1.225430	4.885333
#2	.2355217	2.345189	22.94901	.9488292	2.354943	1.220991	4.833490
#3	.2319907	2.355820	22.81870	.9566572	2.366142	1.223931	4.942288

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.320140	22.66199	2.361744	1.217360	24.41265	2.345854	2.435751
Stddev	.007138	.11776	.004825	.002709	.25631	.001433	.001869
%RSD	.3076404	.5196335	.2042884	.2225075	1.049893	.0611014	.0767172
#1	2.322889	22.64311	2.361054	1.217436	24.51199	2.345271	2.437907
#2	2.325495	22.78804	2.357301	1.214614	24.12154	2.344805	2.434592
#3	2.312037	22.55480	2.366876	1.220030	24.60442	2.347487	2.434755

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.71553	4.671368	4.866481	4.725973	4.718990	4.874057	4.681602
Stddev	.24756	.050423	.012332	.013852	.011678	.058102	.017247
%RSD	1.001628	1.079402	.2534035	.2931135	.2474774	1.192074	.3684089
#1	24.80485	4.656390	4.878187	4.731152	4.715271	4.895728	4.694624
#2	24.43571	4.727583	4.853607	4.710278	4.732075	4.808233	4.662041
#3	24.90604	4.630132	4.867649	4.736490	4.709624	4.918209	4.688141

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV08 Acquired: 5/13/2025 20:52:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.797236	4.805310	4.790916
Stddev	.011130	.010254	.049716
%RSD	.2320139	.2133988	1.037722
#1	4.802648	4.817114	4.734456
#2	4.784435	4.800212	4.828143
#3	4.804626	4.798603	4.810148

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2807.048	68018.54	14063.69	1846.462	4281.784
Stddev	2.009	415.39	85.75	7.411	4.458
%RSD	.0715543	.6107055	.6096940	.4013886	.1041099
#1	2807.544	67992.54	14109.62	1848.293	4286.852
#2	2804.838	68446.32	13964.76	1852.787	4280.030
#3	2808.763	67616.76	14116.69	1838.307	4278.470

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB08 Acquired: 5/13/2025 20:56:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034088	.0004450	.0010743	.0008892	-.001291	.0092260	-.009256
Stddev	.0026250	.0022466	.0022580	.0036259	.001269	.0041216	.001060
%RSD	77.00697	504.8891	210.1765	407.7663	98.34856	44.67407	11.44842
#1	.0037583	-.001200	.0030707	-.002316	-.000117	.0101968	-.008280
#2	.0058416	-.000469	.0015285	.000158	-.001116	.0047056	-.009106
#3	.0006265	.003005	-.001376	.004825	-.002638	.0127755	-.010383

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000074	.0001594	.0060653	-.000215	.0003536	-.000079	.0126545
Stddev	.000022	.0000592	.0121183	.000206	.0002967	.000333	.0043766
%RSD	29.54606	37.15705	199.7953	95.72364	83.91108	419.0782	34.58537
#1	-.000099	.0001305	.0159259	-.000401	.0004802	.000244	.0087433
#2	-.000067	.0002276	-.007463	.000006	.0005661	-.000421	.0173817
#3	-.000057	.0001202	.009733	-.000250	.0000146	-.000062	.0118385

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007076	-.006572	.0006691	.0002022	-.112266	-.000721	.0007761
Stddev	.0001956	.007519	.0003726	.0001480	.011516	.000998	.0003887
%RSD	27.64161	114.4141	55.68753	73.21066	10.25814	138.5010	50.08779
#1	.0006971	-.011380	.0002565	.0000809	-.122202	-.000439	.0012215
#2	.0005175	-.010430	.0007699	.0003671	-.114952	.000106	.0005056
#3	.0009083	.002093	.0009810	.0001586	-.099644	-.001829	.0006010

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0339214	-.000103	.0006181	.0010166	.0007838	.0023408	.0021735
Stddev	.0127315	.001502	.0002938	.0004105	.0005129	.0070585	.0039143
%RSD	37.53244	1465.420	47.52899	40.37797	65.44156	301.5443	180.0933
#1	.0415997	.001333	.0008496	.0005430	.0008558	.0065868	.0004531
#2	.0409391	.000022	.0007170	.0012384	.0012569	-.005807	-.000586
#3	.0192252	-.001663	.0002876	.0012686	.0002387	.006243	.006653

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB08 Acquired: 5/13/2025 20:56:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0007020	-.001786	.0002334
Stddev	.0030112	.001215	.0001038
%RSD	428.9235	68.03649	44.45958
#1	-.000058	-.002712	.0003532
#2	-.001856	-.000410	.0001745
#3	.004020	-.002236	.0001724

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2911.707	71366.93	14036.78	1979.852	4539.513
Stddev	5.670	167.78	18.82	6.784	8.510
%RSD	.1947424	.2350925	.1340598	.3426470	.1874617
#1	2908.974	71475.50	14023.44	1981.077	4537.280
#2	2918.227	71451.60	14028.59	1972.539	4548.917
#3	2907.922	71173.69	14058.30	1985.939	4532.343

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03MS Acquired: 5/13/2025 21:00:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5375173	1.823705	.9552907	1.230080	.2109249	148.4872	.8647423
Stddev	.0010790	.019581	.0004765	.006023	.0007558	.0793	.0007832
%RSD	.2007336	1.073700	.0498784	.4896143	.3583137	.0533838	.0905695
#1	.5383528	1.832185	.9549519	1.229243	.2112765	148.4131	.8649771
#2	.5362992	1.837617	.9550847	1.224519	.2114407	148.5708	.8653813
#3	.5379000	1.801314	.9558355	1.236477	.2100573	148.4775	.8638686

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1348346	.1839186	3.160307	.3471552	.2429816	.2329774	197.1643
Stddev	.0003871	.0004672	.020611	.0016244	.0003494	.0002607	.1523
%RSD	.2870541	.2540019	.6521832	.4679301	.1438120	.1119063	.0772415
#1	.1345004	.1836149	3.136525	.3488778	.2425897	.2328636	196.9930
#2	.1347447	.1836843	3.172995	.3456511	.2432606	.2327929	197.2154
#3	.1352587	.1844565	3.171401	.3469365	.2430945	.2332756	197.2844

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4563324	5.328577	.5296597	.0526275	3.848106	.4215518	.3175066
Stddev	.0007518	.046095	.0006062	.0002168	.004052	.0008739	.0011627
%RSD	.1647471	.8650503	.1144549	.4119382	.1053053	.2073082	.3661939
#1	.4570425	5.307460	.5292500	.0524427	3.843460	.4222176	.3178363
#2	.4564096	5.381447	.5293729	.0528662	3.849946	.4218755	.3162147
#3	.4555449	5.296824	.5303561	.0525737	3.850912	.4205622	.3184689

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.398192	.1865932	.2446829	.6288427	4.039147	6.320470	7.573847
Stddev	.044159	.0005316	.0004201	.0025263	.003696	.031590	.009694
%RSD	.4698721	.2848991	.1717080	.4017436	.0915073	.4998050	.1279960
#1	9.351133	.1867858	.2444929	.6317114	4.039142	6.296463	7.568062
#2	9.438726	.1870016	.2443914	.6269498	4.042845	6.356257	7.585039
#3	9.404715	.1859921	.2451645	.6278669	4.035453	6.308689	7.568440

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03MS Acquired: 5/13/2025 21:00:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.867900	.2344237	-.038069
Stddev	.003617	.0004396	.000146
%RSD	.1936551	.1875203	.3846372
#1	1.871331	.2343638	-.038172
#2	1.864122	.2340171	-.037902
#3	1.868246	.2348902	-.038134

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3941.581	98196.88	20096.80	2739.883	4212.628
Stddev	9.126	57.23	30.11	5.155	10.234
%RSD	.2315274	.0582851	.1498241	.1881312	.2429314
#1	3947.323	98242.69	20114.71	2738.263	4217.998
#2	3946.361	98215.22	20113.65	2735.732	4219.060
#3	3931.058	98132.72	20062.03	2745.653	4200.827

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03MSD Acquired: 5/13/2025 21:04:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5552921	1.861320	.9530117	1.265451	.2219756	149.8424	.8131692
Stddev	.0054212	.011962	.0009874	.008797	.0016636	.1262	.0023531
%RSD	.9762779	.6426732	.1036123	.6951631	.7494276	.0842371	.2893703
#1	.5607141	1.848606	.9518920	1.259193	.2238953	149.6969	.8152006
#2	.5552904	1.863004	.9533849	1.261650	.2210740	149.9091	.8105908
#3	.5498717	1.872351	.9537581	1.275509	.2209575	149.9214	.8137162

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1462792	.1846178	3.250958	.3552580	.2466396	.2444680	187.5913
Stddev	.0003243	.0004116	.028930	.0006327	.0005286	.0016748	.5328
%RSD	.2216746	.2229435	.8898998	.1780884	.2143308	.6850672	.2840114
#1	.1459911	.1846661	3.271176	.3559468	.2460303	.2428766	188.0557
#2	.1462163	.1841842	3.217819	.3551244	.2469115	.2443121	187.7084
#3	.1466303	.1850032	3.263879	.3547028	.2469768	.2462152	187.0096

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4634360	4.897379	.5273033	.0509662	3.643466	.4377622	.3239127
Stddev	.0013709	.015429	.0006264	.0006102	.015693	.0011213	.0005859
%RSD	.2958038	.3150478	.1187987	1.197205	.4307162	.2561514	.1808766
#1	.4649643	4.893978	.5272027	.0511894	3.659553	.4376318	.3244072
#2	.4623148	4.914225	.5279739	.0514335	3.642647	.4389430	.3240653
#3	.4630290	4.883935	.5267332	.0502759	3.628199	.4367117	.3232656

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.511349	.1756012	.2544218	.6238380	3.770489	5.239394	7.670742
Stddev	.037458	.0014404	.0003869	.0024886	.006200	.015584	.029723
%RSD	.4400939	.8202763	.1520856	.3989225	.1644468	.2974386	.3874857
#1	8.524671	.1741540	.2548014	.6211223	3.775250	5.247561	7.640307
#2	8.540324	.1770347	.2540279	.6260094	3.763478	5.249197	7.672220
#3	8.469050	.1756150	.2544361	.6243824	3.772740	5.221424	7.699698

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03MSD Acquired: 5/13/2025 21:04:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.824990	.2384400	-.028490
Stddev	.008441	.0005714	.000689
%RSD	.4625295	.2396584	2.418369
#1	1.816361	.2390701	-.028839
#2	1.825380	.2382949	-.028935
#3	1.833230	.2379552	-.027696

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3835.165	96351.62	18309.65	2661.679	4227.082
Stddev	12.838	224.96	31.14	4.250	6.358
%RSD	.3347572	.2334827	.1700492	.1596567	.1504176
#1	3843.693	96269.10	18341.64	2657.509	4226.907
#2	3841.403	96179.56	18307.86	2661.524	4233.525
#3	3820.400	96606.19	18279.45	2666.004	4220.813

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03A Acquired: 5/13/2025 21:08:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5465857	1.803421	.9129405	1.262652	.5442668	136.7752	.8083827
Stddev	.0013421	.010159	.0033439	.005144	.0012539	.1775	.0017005
%RSD	.2455387	.5633216	.3662751	.4074247	.2303875	.1297992	.2103547
#1	.5474446	1.814877	.9099180	1.267457	.5441485	136.5737	.8091276
#2	.5450391	1.795507	.9123710	1.257225	.5455757	136.9088	.8095835
#3	.5472733	1.799879	.9165326	1.263274	.5430763	136.8431	.8064369

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1411706	.1739407	3.076801	.3538872	.2261827	.2320411	183.0121
Stddev	.0004160	.0006830	.016599	.0006648	.0005976	.0011503	.3553
%RSD	.2946706	.3926872	.5394749	.1878646	.2642056	.4957089	.1941279
#1	.1408357	.1734202	3.061398	.3531397	.2257909	.2314926	183.4211
#2	.1416363	.1736879	3.094381	.3544122	.2258868	.2312678	182.7798
#3	.1410399	.1747142	3.074623	.3541097	.2268705	.2333630	182.8354

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4331336	4.837174	.4966045	.0521500	3.704189	.4099273	.3130855
Stddev	.0003915	.011990	.0024459	.0002367	.013405	.0026334	.0029378
%RSD	.0903761	.2478757	.4925211	.4538628	.3618973	.6424095	.9383491
#1	.4327435	4.834752	.4953131	.0523218	3.702010	.4126987	.3132817
#2	.4335264	4.850191	.4950750	.0518800	3.718551	.4074580	.3100544
#3	.4331309	4.826580	.4994254	.0522482	3.692007	.4096250	.3159203

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.040688	.2124428	.2838101	.6259330	3.365829	5.404994	7.095391
Stddev	.028075	.0021500	.0006440	.0030289	.003849	.011980	.012560
%RSD	.3105423	1.012031	.2269056	.4838931	.1143532	.2216402	.1770173
#1	9.055045	.2149245	.2832472	.6241646	3.363368	5.410921	7.087411
#2	9.008337	.2111429	.2836708	.6242040	3.370265	5.412853	7.088894
#3	9.058681	.2112611	.2845124	.6294303	3.363855	5.391206	7.109869

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-03A Acquired: 5/13/2025 21:08:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.673788	.2280665	-.025786
Stddev	.007868	.0004248	.000485
%RSD	.4700938	.1862698	1.879157
#1	1.676132	.2283394	-.026257
#2	1.665013	.2282830	-.025289
#3	1.680217	.2275770	-.025812

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3852.513	93044.06	18564.15	2570.894	4371.352
Stddev	14.195	186.62	13.51	16.268	13.955
%RSD	.3684734	.2005736	.0728006	.6327637	.3192286
#1	3866.639	92846.78	18549.00	2568.500	4384.148
#2	3852.651	93217.79	18568.49	2588.226	4373.436
#3	3838.249	93067.62	18574.97	2555.956	4356.473

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-04 Acquired: 5/13/2025 21:12:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0632779	.0149853	.2342935	-.022597	-.003799	112.7044	.4768359
Stddev	.0047195	.0015287	.0013564	.001316	.001294	.0573	.0013299
%RSD	7.458376	10.20158	.5789165	5.823910	34.06848	.0508380	.2789102
#1	.0595639	.0165369	.2341751	-.024111	-.005285	112.6431	.4769894
#2	.0685887	.0134805	.2330002	-.021727	-.002923	112.7565	.4754359
#3	.0616811	.0149384	.2357052	-.021952	-.003187	112.7137	.4780824

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078510	-.011253	12.34642	.2001736	.0597850	.1473420	241.6840
Stddev	.0000555	.000297	.00766	.0004852	.0001676	.0005299	.8914
%RSD	.7069926	2.640670	.0620417	.2424001	.2803971	.3596469	.3688393
#1	.0079119	-.010915	12.34930	.1998122	.0596175	.1478007	240.6637
#2	.0078378	-.011475	12.33773	.1999836	.0599528	.1474634	242.0764
#3	.0078032	-.011369	12.35221	.2007251	.0597848	.1467619	242.3119

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.026757	10.91751	.1152942	.0053435	1.615775	.3223272	.6058638
Stddev	.002562	.02138	.0004889	.0003433	.024010	.0006999	.0019536
%RSD	.2495082	.1958070	.4240424	6.424968	1.486000	.2171335	.3224499
#1	1.029707	10.93964	.1148630	.0052618	1.588051	.3215381	.6073969
#2	1.025091	10.91591	.1158253	.0057203	1.629806	.3228728	.6036641
#3	1.025473	10.89698	.1151941	.0050484	1.629469	.3225706	.6065304

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.092640	.0613336	.0043270	.0867437	1.446192	5.249864	3.772449
Stddev	.042208	.0011090	.0005185	.0018062	.004279	.038181	.006603
%RSD	1.031313	1.808068	11.98394	2.082193	.2958487	.7272852	.1750288
#1	4.045044	.0601419	.0046264	.0851795	1.448761	5.209413	3.777994
#2	4.125519	.0615239	.0046263	.0863312	1.448562	5.285275	3.765145
#3	4.107357	.0623351	.0037282	.0887205	1.441253	5.254904	3.774209

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-04 Acquired: 5/13/2025 21:12:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.593793	.1614049	-.182086
Stddev	.003586	.0006879	.000849
%RSD	.2250054	.4262094	.4660681
#1	1.596064	.1606356	-.181106
#2	1.589659	.1619608	-.182567
#3	1.595656	.1616185	-.182586

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3002.702	72569.96	15886.96	1963.369	4351.545
Stddev	5.945	349.16	56.22	6.082	3.205
%RSD	.1979769	.4811391	.3538784	.3097585	.0736542
#1	2997.202	72934.34	15833.89	1960.871	4348.933
#2	3009.009	72238.33	15881.10	1958.935	4355.121
#3	3001.895	72537.20	15945.88	1970.302	4350.579

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-05 Acquired: 5/13/2025 21:17:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0590106	.0221944	.1364022	-.049292	-.003552	55.54401	.2443120
Stddev	.0050195	.0026486	.0015622	.001624	.002886	.11733	.0009537
%RSD	8.506126	11.93347	1.145273	3.294103	81.24009	.2112302	.3903712
#1	.0631557	.0247661	.1359866	-.047983	-.005911	55.45044	.2437429
#2	.0534296	.0194751	.1381301	-.048785	-.004410	55.67564	.2454131
#3	.0604464	.0223421	.1350898	-.051109	-.000335	55.50595	.2437801

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0076069	-.010719	17.41487	.1550910	.0273289	.1487891	295.2429
Stddev	.0000069	.000172	.05100	.0005731	.0000894	.0013127	.3212
%RSD	.0909023	1.607166	.2928539	.3695491	.3269516	.8822591	.1087960
#1	.0076085	-.010617	17.37362	.1550340	.0273483	.1481366	295.3411
#2	.0075993	-.010918	17.47190	.1545485	.0272314	.1479304	295.5036
#3	.0076128	-.010623	17.39912	.1556905	.0274069	.1503001	294.8841

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4925492	5.089473	.0475151	.0024397	1.089594	.2882376	.2715124
Stddev	.0017180	.011793	.0002523	.0001582	.005873	.0015323	.0019644
%RSD	.3488063	.2317207	.5309010	6.484440	.5390133	.5316154	.7235098
#1	.4937715	5.094976	.0472252	.0025750	1.093354	.2868544	.2722079
#2	.4932912	5.075934	.0476358	.0024785	1.092603	.2898848	.2692948
#3	.4905848	5.097510	.0476844	.0022658	1.082827	.2879737	.2730343

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.665945	.0257334	.0019056	.0063278	1.111135	4.358688	2.211611
Stddev	.008172	.0011019	.0002407	.0005500	.003926	.025203	.008588
%RSD	.3065361	4.281948	12.62898	8.692314	.3533756	.5782201	.3883007
#1	2.665157	.0255592	.0020769	.0069215	1.107475	4.358663	2.209029
#2	2.674483	.0269121	.0016304	.0058355	1.115282	4.383903	2.221194
#3	2.658196	.0247291	.0020095	.0062264	1.110647	4.333497	2.204611

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-05 Acquired: 5/13/2025 21:17:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.673768	.1362783	-.212721
Stddev	.016579	.0004021	.000234
%RSD	.6200665	.2950548	.1102211
#1	2.684665	.1367421	-.212977
#2	2.654689	.1360649	-.212670
#3	2.681951	.1360279	-.212516

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2925.425	74815.59	14469.15	1993.865	4361.594
Stddev	9.080	34.90	20.78	6.030	12.702
%RSD	.3103970	.0466539	.1436233	.3024172	.2912310
#1	2919.146	74841.63	14491.64	1999.735	4354.443
#2	2935.837	74829.20	14465.12	1994.173	4376.260
#3	2921.294	74775.93	14450.67	1987.688	4354.079

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-06 Acquired: 5/13/2025 21:21:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0236464	.0334263	.0746655	-.055266	-.003872	20.76691	.0491310
Stddev	.0027165	.0007242	.0018008	.003398	.002263	.04128	.0004991
%RSD	11.48807	2.166491	2.411764	6.149254	58.44683	.1987871	1.015831
#1	.0267175	.0341597	.0747841	-.052978	-.004362	20.77150	.0497061
#2	.0215581	.0334073	.0764040	-.059171	-.005850	20.72352	.0488760
#3	.0226635	.0327117	.0728084	-.053649	-.001404	20.80570	.0488110

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070322	-.020910	8.242886	.0912117	.0134897	.1196106	404.4982
Stddev	.0000618	.000791	.039363	.0004564	.0004632	.0013805	2.8109
%RSD	.8788776	3.784024	.4775380	.5004201	3.433601	1.154200	.6949217
#1	.0070794	-.021817	8.229790	.0909138	.0130720	.1180205	407.7426
#2	.0069622	-.020361	8.211741	.0909842	.0139878	.1205032	402.9584
#3	.0070548	-.020551	8.287128	.0917372	.0134092	.1203082	402.7937

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.721878	1.297160	.0176136	.0057198	1.891913	.1311468	.1513044
Stddev	.013412	.001891	.0004967	.0003019	.021649	.0020684	.0007087
%RSD	.4927465	.1458177	2.819801	5.277710	1.144268	1.577130	.4684228
#1	2.725944	1.297281	.0177830	.0060553	1.908172	.1294761	.1505318
#2	2.706904	1.295211	.0180033	.0056342	1.900227	.1305042	.1519245
#3	2.732787	1.298989	.0170543	.0054700	1.867340	.1334602	.1514570

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.618407	.0803234	.0001199	.0039292	.4819556	3.471550	1.035225
Stddev	.034466	.0039792	.0001415	.0003121	.0011822	.016519	.005077
%RSD	1.316284	4.953937	118.0759	7.942512	.2452916	.4758416	.4903853
#1	2.651799	.0847878	-.000037	.0042273	.4822100	3.489780	1.034025
#2	2.582960	.0790322	.000160	.0039554	.4806670	3.467295	1.030857
#3	2.620461	.0771501	.000237	.0036048	.4829900	3.457575	1.040795

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-06 Acquired: 5/13/2025 21:21:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6791193	.1676922	-.349631
Stddev	.0062261	.0013750	.002522
%RSD	.9167829	.8199335	.7214268
#1	.6725376	.1691792	-.352537
#2	.6849150	.1664669	-.348340
#3	.6799053	.1674306	-.348014

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2928.134	71596.12	14994.35	1976.003	4334.170
Stddev	3.588	287.17	75.67	12.823	3.861
%RSD	.1225360	.4010925	.5046736	.6489499	.0890925
#1	2928.885	71270.59	15030.34	1961.197	4338.614
#2	2931.288	71704.25	15045.32	1983.514	4331.636
#3	2924.231	71813.53	14907.40	1983.299	4332.260

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-07 Acquired: 5/13/2025 21:25:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0792243	.0108145	.2699277	-.026863	-.002808	48.61051	.1517671
Stddev	.0019856	.0017385	.0020362	.004510	.001924	.06971	.0011472
%RSD	2.506239	16.07570	.7543653	16.78781	68.54437	.1433960	.7558861
#1	.0812127	.0098454	.2684331	-.026464	-.002481	48.59116	.1507550
#2	.0792184	.0128215	.2691032	-.022566	-.004875	48.68784	.1530133
#3	.0772417	.0097765	.2722469	-.031559	-.001068	48.55252	.1515331

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049562	-.008782	11.39984	.1380825	.0261591	.2010812	218.3863
Stddev	.0001114	.000061	.02604	.0000991	.0003289	.0012703	.3865
%RSD	2.247933	.6954439	.2284323	.0717513	1.257359	.6317195	.1769580
#1	.0048846	-.008712	11.42913	.1381008	.0265370	.2011137	218.1108
#2	.0048993	-.008806	11.37931	.1381712	.0260025	.1997950	218.8280
#3	.0050845	-.008827	11.39107	.1379756	.0259377	.2023349	218.2201

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3760215	9.471156	.0498858	.0030345	6.870087	.3292582	.4065387
Stddev	.0018641	.046270	.0004455	.0001314	.014413	.0012205	.0009693
%RSD	.4957318	.4885405	.8930439	4.331007	.2097988	.3706938	.2384193
#1	.3739430	9.502159	.0495720	.0031683	6.864456	.3292750	.4054698
#2	.3775452	9.493339	.0496898	.0030296	6.886465	.3304702	.4073604
#3	.3765762	9.417971	.0503957	.0029056	6.859338	.3280293	.4067859

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.572761	.0431124	.0017577	.0110093	1.203494	3.696565	2.323186
Stddev	.019879	.0006940	.0003309	.0016964	.000755	.010571	.006666
%RSD	.5564060	1.609765	18.82283	15.40900	.0627575	.2859624	.2869530
#1	3.549925	.0424229	.0014071	.0090702	1.202932	3.697892	2.320556
#2	3.586196	.0431036	.0020643	.0122193	1.204353	3.706410	2.318236
#3	3.582162	.0438108	.0018018	.0117385	1.203199	3.685394	2.330767

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-07 Acquired: 5/13/2025 21:25:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.763688	.1131117	-.137510
Stddev	.008209	.0003610	.000372
%RSD	.2970141	.3191617	.2707725
#1	2.754574	.1135270	-.137257
#2	2.770499	.1128725	-.137937
#3	2.765992	.1129357	-.137335

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2954.371	71915.78	14650.93	1984.075	4389.082
Stddev	2.857	196.28	28.38	14.106	5.867
%RSD	.0966915	.2729360	.1936902	.7109737	.1336783
#1	2955.211	71945.08	14644.20	1992.593	4388.020
#2	2956.714	71706.49	14626.52	1967.792	4395.407
#3	2951.189	72095.76	14682.07	1991.839	4383.818

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-08 Acquired: 5/13/2025 21:29:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1823611	.1274881	.0558361	-.246985	-.018460	93.24375
Stddev	.0080759	.0020718	.0025324	.002247	.000746	.06517
%RSD	4.428531	1.625100	4.535372	.9097402	4.041356	.0698952
#1	.1872336	.1291360	.0529169	-.246658	-.018464	93.16890
#2	.1868107	.1251622	.0574420	-.244919	-.019204	93.27447
#3	.1730390	.1281660	.0571495	-.249377	-.017712	93.28789

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0673175	.0220556	-.051431	7.959259	.2700475	.0297921
Stddev	.0004178	.0003481	.001696	.164157	.0004698	.0004886
%RSD	.6206178	1.578285	3.298493	2.062463	.1739738	1.640047
#1	.0670049	.0216536	-.052097	7.870579	.2705501	.0293723
#2	.0671555	.0222597	-.049503	8.148683	.2696194	.0296756
#3	.0677920	.0222534	-.052693	7.858515	.2699729	.0303284

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5589299	1414.047	.0343368	.8105675	.0180815	.0014255
Stddev	.0059427	11.153	.0011679	.0163781	.0006373	.0021968
%RSD	1.063223	.7886993	3.401242	2.020576	3.524885	154.1090
#1	.5545125	1420.740	.0332102	.7916705	.0173511	.0029222
#2	.5656861	1401.172	.0355420	.8193683	.0185246	-.001096
#3	.5565911	1420.228	.0342580	.8206638	.0183688	.002451

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7613917	.3815692	.4112946	3.061566	.1619149	-.011087
Stddev	.0063881	.0017964	.0014748	.040356	.0133447	.000714
%RSD	.8390038	.4707936	.3585828	1.318164	8.241786	6.444084
#1	.7686635	.3797946	.4128472	3.102374	.1718231	-.011081
#2	.7566843	.3815262	.4099124	3.021677	.1467406	-.010376
#3	.7588273	.3833867	.4111242	3.060646	.1671809	-.011805

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1982-08 Acquired: 5/13/2025 21:29:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0183765	.6317833	4.786887	3.014114	4.996898	.5719085
Stddev	.0022578	.0015058	.052047	.006254	.019484	.0048465
%RSD	12.28606	.2383344	1.087284	.2074858	.3899127	.8474246
#1	.0174671	.6316827	4.796733	3.011168	5.015777	.5741127
#2	.0209471	.6333369	4.730620	3.021297	4.998055	.5663517
#3	.0167152	.6303304	4.833308	3.009877	4.976862	.5752612

Elem	Sr4077
Units	ppm
Avg	F -1.33262
Stddev	.01085
%RSD	.8139855
#1	-1.33921
#2	-1.32010
#3	-1.33855

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2706.076	68450.20	14910.89	1855.958	4002.245
Stddev	2.897	337.33	44.74	11.120	1.619
%RSD	.1070615	.4928044	.3000394	.5991687	.0404529
#1	2705.429	68407.66	14961.00	1848.759	4003.160
#2	2703.556	68806.77	14874.98	1868.766	4000.375
#3	2709.241	68136.15	14896.67	1850.350	4003.199

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167894TB Acquired: 5/13/2025 21:33:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003447	-.003100	-.001367	.0026603	.0021767	.0112037	-.007815
Stddev	.000847	.001782	.001976	.0021749	.0017915	.0051109	.000942
%RSD	24.58465	57.48070	144.4910	81.75492	82.30221	45.61761	12.04842
#1	-.004412	-.002885	.000217	.0040793	.0010922	.0070168	-.008563
#2	-.002822	-.004979	-.000738	.0001563	.0011935	.0168990	-.006757
#3	-.003107	-.001435	-.003581	.0037453	.0042445	.0096954	-.008124

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000232	-.000077	.0047538	.0016845	-.000380	.0004000	.0525250
Stddev	.000035	.000104	.0013565	.0003894	.000137	.0000751	.0050399
%RSD	15.23306	134.5866	28.53524	23.11850	36.08785	18.78310	9.595150
#1	-.000197	-.000172	.0063101	.0020572	-.000517	.0004587	.0467056
#2	-.000268	.000034	.0038220	.0017160	-.000243	.0003153	.0554702
#3	-.000230	-.000094	.0041294	.0012803	-.000380	.0004259	.0553991

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020561	-.002350	.0003946	-.000326	285.3205	-.002848	.0018294
Stddev	.0001088	.007699	.0002025	.000267	1.2789	.001931	.0003804
%RSD	5.293681	327.5895	51.31513	81.77810	.4482278	67.79431	20.79156
#1	.0019355	.006344	.0006276	-.000421	284.5946	-.003778	.0020603
#2	.0021469	-.008307	.0002942	-.000533	286.7971	-.000628	.0013904
#3	.0020860	-.005088	.0002619	-.000025	284.5698	-.004137	.0020374

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.017924	-.009990	.0000154	.0002457	.0003227	.0219198	.0121929
Stddev	.015628	.000406	.0001523	.0011833	.0004626	.0097293	.0028677
%RSD	87.19117	4.063993	988.0342	481.6177	143.3362	44.38600	23.51932
#1	-.035363	-.009585	.0000569	-.000827	.0002543	.0325195	.0092282
#2	-.013219	-.009990	.0001427	.001515	.0008157	.0133958	.0149526
#3	-.005188	-.010397	-.000153	.000050	-.000102	.0198442	.0123979

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: PB167894TB Acquired: 5/13/2025 21:33:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0223117	-.003607	-.000017
Stddev	.0054115	.000200	.000042
%RSD	24.25395	5.552654	244.6958
#1	.0164872	-.003457	.000031
#2	.0232641	-.003834	-.000041
#3	.0271837	-.003529	-.000041

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2813.920	67536.07	14578.02	1829.724	4272.457
Stddev	9.071	59.34	42.71	9.758	1.690
%RSD	.3223638	.0878646	.2929849	.5332827	.0395534
#1	2822.240	67562.55	14626.43	1831.369	4274.391
#2	2815.271	67468.10	14561.97	1819.248	4271.714
#3	2804.249	67577.56	14545.65	1838.554	4271.265

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV09 Acquired: 5/13/2025 21:38:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.935056	4.930599	4.760420	4.998114	4.936214	9.435925	9.271404
Stddev	.013808	.066853	.010192	.030801	.021708	.037899	.134042
%RSD	.2797988	1.355873	.2141039	.6162508	.4397794	.4016473	1.445760
#1	4.921561	4.895007	4.756807	4.964330	4.914979	9.423924	9.170425
#2	4.934451	5.007718	4.752526	5.005382	4.935295	9.478371	9.423480
#3	4.949157	4.889073	4.771926	5.024632	4.958367	9.405479	9.220307

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2357998	2.369918	22.79767	.9577341	2.374193	1.223934	4.763685
Stddev	.0012852	.003592	.06433	.0011439	.005604	.003917	.010191
%RSD	.5450565	.1515563	.2821660	.1194382	.2360249	.3200307	.2139405
#1	.2359922	2.368365	22.81604	.9582246	2.372375	1.220835	4.753912
#2	.2369781	2.367364	22.85081	.9585509	2.369724	1.222631	4.762892
#3	.2344293	2.374025	22.72615	.9564267	2.380480	1.228337	4.774249

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.286741	22.87006	2.375662	1.205891	23.61172	2.333012	2.410329
Stddev	.007504	.08383	.005669	.002630	.03310	.006761	.002550
%RSD	.3281326	.3665276	.2386470	.2181079	.1401671	.2898130	.1058087
#1	2.284738	22.94677	2.372441	1.208608	23.62632	2.328568	2.408655
#2	2.295043	22.88282	2.372336	1.205710	23.57384	2.340793	2.413264
#3	2.280442	22.78059	2.382208	1.203357	23.63501	2.329676	2.409068

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.82719	4.700929	4.859146	4.756051	4.644394	4.732291	4.675052
Stddev	.01766	.022797	.012830	.002698	.016839	.016908	.023549
%RSD	.0741262	.4849515	.2640324	.0567243	.3625729	.3572856	.5037057
#1	23.80741	4.695513	4.845764	4.752974	4.641118	4.751797	4.648209
#2	23.83277	4.725946	4.860334	4.758007	4.662631	4.723254	4.692229
#3	23.84139	4.681327	4.871341	4.757174	4.629434	4.721822	4.684719

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV09 Acquired: 5/13/2025 21:38:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.850312	4.663700	4.701219
Stddev	.003542	.013910	.024500
%RSD	.0730296	.2982694	.5211435
#1	4.846264	4.656482	4.728959
#2	4.852842	4.679736	4.692156
#3	4.851830	4.654883	4.682541

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2778.735	68042.18	13752.06	1851.665	4213.458
Stddev	8.153	170.49	81.21	4.138	8.359
%RSD	.2933945	.2505651	.5904946	.2234902	.1983890
#1	2781.787	67859.50	13725.71	1847.155	4214.309
#2	2784.921	68069.97	13687.30	1852.554	4221.359
#3	2769.497	68197.06	13843.17	1855.287	4204.706

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB09 Acquired: 5/13/2025 21:42:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001042	.0000048	.0004417	.0030968	.0016611	.0130807	-.008064
Stddev	.000737	.0011058	.0005140	.0026677	.0030299	.0036027	.000145
%RSD	70.74628	23242.59	116.3672	86.14262	182.3993	27.54184	1.800432
#1	-.001451	.0011685	.0009812	.0023308	.0034815	.0170886	-.007982
#2	-.001485	-.001032	.0003864	.0060637	-.001837	.0120422	-.007979
#3	-.000191	-.000122	-.000042	.0008959	.003338	.0101113	-.008232

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000074	.0000436	-.002308	-.000418	.0003864	-.000114	.0047520
Stddev	.000035	.0000303	.007729	.000177	.0002443	.000037	.0046870
%RSD	46.72337	69.52913	334.8563	42.27852	63.20603	32.87821	98.63065
#1	-.000113	.0000583	-.004263	-.000565	.0004475	-.000156	-.000024
#2	-.000062	.0000087	-.008872	-.000222	.0001175	-.000086	.004935
#3	-.000048	.0000637	.006210	-.000466	.0005944	-.000099	.009345

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002108	.0032175	.0001180	-.000156	-.110876	-.000032	.0011969
Stddev	.0001615	.0190025	.0000572	.000244	.004739	.000918	.0001456
%RSD	76.64025	590.5938	48.48120	156.5120	4.273905	2881.293	12.16154
#1	.0000971	.0241267	.0001388	-.000086	-.111271	.000986	.0012627
#2	.0001395	-.012999	.0000533	.000045	-.105952	-.000797	.0010300
#3	.0003957	-.001475	.0001618	-.000426	-.115405	-.000284	.0012979

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1044804	.0005471	.0006778	.0024953	.0004964	.0038261	.0018500
Stddev	.0258244	.0002265	.0002168	.0005212	.0001995	.0069541	.0021101
%RSD	24.71701	41.39386	31.98825	20.88635	40.19167	181.7530	114.0578
#1	.0842998	.0008007	.0006248	.0027203	.0005730	.0007055	.0014984
#2	.1335828	.0004757	.0004924	.0028662	.0006463	.0117939	.0041138
#3	.0955587	.0003650	.0009162	.0018994	.0002699	-.001021	-.000062

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB09 Acquired: 5/13/2025 21:42:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0034653	-.001386	.0001334
Stddev	.0065414	.000426	.0000714
%RSD	188.7671	30.72526	53.54543
#1	-.002003	-.001523	.0000510
#2	.010712	-.001726	.0001709
#3	.001687	-.000909	.0001783

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2841.829	71296.75	13893.97	1961.588	4377.243
Stddev	8.689	174.80	11.68	8.352	7.865
%RSD	.3057620	.2451708	.0840669	.4258006	.1796877
#1	2834.108	71490.19	13889.59	1967.676	4371.130
#2	2851.239	71249.92	13885.11	1965.021	4386.117
#3	2840.141	71150.13	13907.21	1952.066	4374.483

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1968-08 Acquired: 5/13/2025 21:46:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000337	-.003615	-.001273	.0018169	-.000295	-.015792	.1038345
Stddev	.000168	.002001	.000127	.0047368	.002349	.002150	.0009765
%RSD	49.88725	55.34348	10.00194	260.7102	795.1529	13.61210	.9404610
#1	-.000478	-.003445	-.001248	.0058457	-.001860	-.014708	.1047208
#2	-.000382	-.005695	-.001411	-.003401	-.001432	-.018268	.1039951
#3	-.000151	-.001705	-.001160	.003006	.002406	-.014401	.1027876

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000292	.0002898	109.9348	-.000852	-.000239	.0016937	.0178705
Stddev	.000013	.0000441	.1200	.000070	.000251	.0001797	.0006139
%RSD	4.332009	15.22426	.1091481	8.263231	104.9185	10.61121	3.435109
#1	-.000293	.0003283	109.9416	-.000933	.000036	.0014973	.0172719
#2	-.000304	.0002995	109.8116	-.000815	-.000297	.0018499	.0178412
#3	-.000279	.0002417	110.0512	-.000808	-.000455	.0017338	.0184986

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.128583	1.316412	.0001551	-.000390	254.5713	-.000655	.0151642
Stddev	.000932	.003629	.0002734	.000404	2.2484	.001054	.0005941
%RSD	.0825680	.2756901	176.3493	103.5976	.8832062	161.0295	3.917897
#1	1.129640	1.312479	.0004573	-.000777	256.8421	-.000138	.0150566
#2	1.127881	1.317127	-.000075	-.000423	252.3460	-.001868	.0146311
#3	1.128229	1.319631	.000083	.000029	254.5259	.000041	.0158047

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2453748	.0034817	.0007202	-.004742	-.002774	.2733316	.0130426
Stddev	.0137667	.0004953	.0000984	.000346	.000689	.0020431	.0027357
%RSD	5.610459	14.22630	13.66700	7.289711	24.83752	.7474760	20.97489
#1	.2296485	.0031130	.0007965	-.004648	-.002509	.2722446	.0100230
#2	.2552462	.0032874	.0007550	-.005125	-.003557	.2720619	.0137492
#3	.2512296	.0040447	.0006091	-.004453	-.002257	.2756884	.0153557

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1968-08 Acquired: 5/13/2025 21:46:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2374401	-.017714	.1378112
Stddev	.0038743	.000409	.0000716
%RSD	1.631685	2.309805	.0519764
#1	.2418292	-.017895	.1377488
#2	.2359954	-.017246	.1378894
#3	.2344958	-.018002	.1377954

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2750.946	67239.83	14329.65	1841.372	4089.713
Stddev	5.059	113.28	61.17	4.059	3.780
%RSD	.1839113	.1684669	.4268782	.2204577	.0924359
#1	2747.937	67109.43	14259.36	1836.848	4093.126
#2	2748.115	67313.87	14358.76	1842.573	4085.650
#3	2756.787	67296.19	14370.83	1844.696	4090.364

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-02 Acquired: 5/13/2025 21:51:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004656	-.005698	-.000028	.0052974	.0009876	.0131154	.7500162
Stddev	.004273	.002799	.001196	.0050705	.0008250	.0020523	.0023257
%RSD	91.76937	49.12290	4267.790	95.71645	83.53326	15.64833	.3100872
#1	-.000218	-.004715	.000665	.0065755	.0000487	.0154221	.7509431
#2	-.005009	-.003523	.000660	.0096066	.0015965	.0114915	.7517355
#3	-.008742	-.008856	-.001409	-.000290	.0013176	.0124325	.7473699

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002919	.0011319	68.39948	-.000049	.0082881	.0092327	.0819197
Stddev	.0000832	.0000298	.07271	.000065	.0001369	.0001496	.0013699
%RSD	28.50460	2.631070	.1063014	132.2068	1.651310	1.619885	1.672273
#1	.0003317	.0011581	68.35588	-.000066	.0082526	.0091815	.0833536
#2	.0001963	.0011382	68.48341	-.000103	.0081725	.0091154	.0817814
#3	.0003477	.0010995	68.35914	.000023	.0084392	.0094011	.0806242

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5447182	8.293701	.0110001	-.000054	864.6301	-.000289	.6705714
Stddev	.0021656	.040206	.0001939	.000197	5.4734	.001679	.0023338
%RSD	.3975693	.4847792	1.762756	361.7397	.6330361	580.8373	.3480259
#1	.5424096	8.265621	.0112163	-.000046	868.7228	-.000696	.6684889
#2	.5467047	8.339760	.0108415	.000138	866.7545	.001556	.6730938
#3	.5450404	8.275723	.0109425	-.000256	858.4129	-.001727	.6701316

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.214662	.2445290	.0010721	-.003239	-.001587	3.996642	.0244821
Stddev	.028135	.0016494	.0001102	.000392	.000339	.015647	.0022345
%RSD	.5395324	.6745160	10.27569	12.09163	21.35413	.3914968	9.127047
#1	5.218137	.2447049	.0009824	-.003508	-.001444	3.989777	.0250724
#2	5.240898	.2427987	.0011951	-.002790	-.001974	4.014547	.0220118
#3	5.184951	.2460834	.0010389	-.003420	-.001343	3.985601	.0263623

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-02 Acquired: 5/13/2025 21:51:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.010411	-.004905	.2499658
Stddev	.013356	.000630	.0006174
%RSD	.3330214	12.84589	.2469842
#1	4.024457	-.004436	.2498820
#2	3.997874	-.004657	.2506208
#3	4.008903	-.005621	.2493947

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2639.366	63474.76	13373.52	1750.115	3811.168
Stddev	4.781	203.14	31.81	11.214	6.665
%RSD	.1811284	.3200327	.2378306	.6407351	.1748911
#1	2643.325	63433.13	13359.32	1754.280	3807.927
#2	2640.717	63295.66	13409.95	1737.415	3818.834
#3	2634.055	63695.49	13351.28	1758.651	3806.744

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04 Acquired: 5/13/2025 21:55:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007421	-.005066	.1122100	.0027214	.0080748	.3687518	.1892070
Stddev	.000539	.001730	.0001508	.0016096	.0026853	.0053708	.0002397
%RSD	7.261752	34.14698	.1343852	59.14781	33.25546	1.456490	.1266908
#1	-.006845	-.006870	.1123660	.0040398	.0098245	.3643230	.1889952
#2	-.007504	-.004907	.1121990	.0031968	.0094170	.3747259	.1894672
#3	-.007914	-.003421	.1120650	.0009276	.0049830	.3672065	.1891587

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000162	.0061532	15.69855	.0013744	.0033101	.2834067	.4915684
Stddev	.000077	.0000706	.02650	.0002484	.0002276	.0005475	.0062644
%RSD	47.47924	1.146938	.1688280	18.07064	6.874617	.1931894	1.274364
#1	-.000189	.0061628	15.67696	.0015845	.0032636	.2832533	.4982256
#2	-.000223	.0062185	15.72813	.0011003	.0031094	.2829523	.4857896
#3	-.000076	.0060783	15.69056	.0014385	.0035573	.2840146	.4906901

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2118129	1.702325	.0280165	-.000016	315.6815	.0004884	5.048048
Stddev	.0012996	.002454	.0001421	.000043	1.1369	.0015916	.010333
%RSD	.6135489	.1441572	.5073228	265.2428	.3601338	325.8759	.2046914
#1	.2116886	1.699512	.0281382	.000021	315.2185	-.001232	5.037827
#2	.2105800	1.703435	.0278603	-.000006	314.8493	.000790	5.047828
#3	.2131702	1.704028	.0280510	-.000063	316.9769	.001908	5.058489

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.343918	.0610226	-.000001	-.000180	.0020703	.4987690	.2078128
Stddev	.019614	.0011712	.000246	.000074	.0008841	.0021020	.0014841
%RSD	1.459448	1.919334	32385.91	41.30298	42.70640	.4214478	.7141438
#1	1.344815	.0608716	-.000161	-.000094	.0030619	.4978036	.2070076
#2	1.323871	.0622620	.000282	-.000218	.0017847	.5011804	.2069054
#3	1.363067	.0599342	-.000123	-.000227	.0013643	.4973231	.2095255

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04 Acquired: 5/13/2025 21:55:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.264022	-.003312	.0691335
Stddev	.020273	.001204	.0002378
%RSD	.6210932	36.35727	.3439754
#1	3.265613	-.004214	.0688657
#2	3.243001	-.003776	.0692149
#3	3.283453	-.001944	.0693198

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2781.341	68591.18	13719.83	1840.658	4149.411
Stddev	1.014	342.57	36.29	11.276	3.211
%RSD	.0364472	.4994433	.2645248	.6125874	.0773816
#1	2782.211	68731.92	13742.82	1841.889	4151.510
#2	2781.585	68840.96	13678.00	1851.267	4151.009
#3	2780.228	68200.65	13738.69	1828.817	4145.715

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04DUP Acquired: 5/13/2025 22:00:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005244	-.005082	.1182045	.0047526	.0087185	.3905553	.1977940
Stddev	.002734	.001183	.0016151	.0013810	.0020153	.0014492	.0013800
%RSD	52.14224	23.28332	1.366334	29.05848	23.11559	.3710701	.6977115
#1	-.004135	-.005659	.1163396	.0063365	.0101067	.3892250	.1988488
#2	-.003238	-.003721	.1191441	.0038002	.0064069	.3903412	.1983010
#3	-.008359	-.005867	.1191299	.0041211	.0096419	.3920996	.1962322

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000167	.0065758	16.47959	.0031323	.0034395	.2993567	.5545864
Stddev	.000017	.0000744	.05390	.0001419	.0002127	.0002762	.0027010
%RSD	10.22412	1.131687	.3270908	4.528682	6.185556	.0922783	.4870270
#1	-.000151	.0066533	16.46876	.0030122	.0033223	.2990811	.5566871
#2	-.000164	.0065690	16.53809	.0032888	.0033111	.2993552	.5555324
#3	-.000185	.0065049	16.43193	.0030959	.0036851	.2996336	.5515396

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2202238	1.797858	.0298244	-.000273	348.0496	.0019455	5.351526
Stddev	.0008779	.025996	.0000236	.000130	2.5505	.0005310	.012732
%RSD	.3986239	1.445971	.0790187	47.69260	.7327960	27.29446	.2379129
#1	.2199402	1.809622	.0298516	-.000125	349.5256	.0013821	5.363723
#2	.2212085	1.815892	.0298119	-.000370	349.5187	.0020178	5.352537
#3	.2195229	1.768059	.0298097	-.000323	345.1046	.0024367	5.338319

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.512287	.0628139	.0000160	-.001227	.0021995	.5449028	.2203610
Stddev	.011470	.0001107	.0002841	.001727	.0007004	.0043120	.0022358
%RSD	.7584823	.1762220	1779.026	140.7749	31.84316	.7913309	1.014613
#1	1.521294	.0626908	-.000142	-.003041	.0021214	.5458140	.2225266
#2	1.499373	.0629052	.000344	-.001036	.0015414	.5402081	.2180611
#3	1.516194	.0628458	-.000154	.000397	.0029356	.5486864	.2204952

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04DUP Acquired: 5/13/2025 22:00:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.434007	-.004344	.0719152
Stddev	.010012	.000944	.0003630
%RSD	.2915687	21.73001	.5047285
#1	3.438540	-.005262	.0720737
#2	3.440952	-.004395	.0721720
#3	3.422530	-.003376	.0714999

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2760.989	66672.28	13948.35	1795.694	4136.786
Stddev	4.024	131.43	20.71	7.404	1.191
%RSD	.1457585	.1971221	.1484491	.4123196	.0288005
#1	2761.032	66761.73	13934.57	1788.921	4135.441
#2	2756.944	66521.39	13938.32	1794.561	4137.708
#3	2764.992	66733.72	13972.16	1803.599	4137.209

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04LX5 Acquired: 5/13/2025 22:04:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001845	-.000150	.0223111	.0016803	.0022421	.0780849	.0313146
Stddev	.002152	.001194	.0005421	.0013032	.0012043	.0055130	.0007788
%RSD	116.5934	796.2779	2.429894	77.55593	53.71319	7.060210	2.487126
#1	-.002013	-.000583	.0219319	.0001756	.0036117	.0830729	.0304615
#2	.000385	.001200	.0220693	.0024390	.0017655	.0790161	.0314949
#3	-.003909	-.001067	.0229320	.0024265	.0013490	.0721656	.0319875

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000069	.0013014	3.121787	.0002531	.0008210	.0592620	.1067780
Stddev	.000018	.0001143	.016420	.0004050	.0001617	.0008268	.0087796
%RSD	25.65574	8.781080	.5259799	159.9960	19.69744	1.395232	8.222308
#1	-.000050	.0013264	3.131740	.0003842	.0009901	.0587224	.1108220
#2	-.000072	.0014012	3.102835	.0005764	.0006678	.0588498	.1128069
#3	-.000086	.0011767	3.130787	-.000201	.0008051	.0602140	.0967052

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0424041	.3395395	.0054846	.0000174	64.45023	-.001232	1.049930
Stddev	.0003200	.0178533	.0001516	.0002398	.53431	.000823	.002927
%RSD	.7546459	5.258082	2.764295	1380.030	.8290206	66.80540	.2788114
#1	.0424984	.3191925	.0055313	-.000072	65.04228	-.001679	1.048367
#2	.0420476	.3468430	.0053152	.000289	64.30451	-.000282	1.053307
#3	.0426664	.3525831	.0056074	-.000165	64.00390	-.001734	1.048117

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3394492	.0045243	.0003220	-.001030	.0002892	.1039966	.0441882
Stddev	.0048273	.0008896	.0000350	.000427	.0004123	.0071163	.0047662
%RSD	1.422091	19.66136	10.87532	41.43161	142.6027	6.842828	10.78605
#1	.3352793	.0054425	.0003099	-.001469	.0002163	.1060212	.0494084
#2	.3383307	.0044642	.0002947	-.000617	-.000082	.0960873	.0430877
#3	.3447375	.0036664	.0003615	-.001003	.000733	.1098812	.0400686

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04LX5 Acquired: 5/13/2025 22:04:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6487219	-.002792	.0139634
Stddev	.0090200	.000738	.0000515
%RSD	1.390419	26.42473	.3686510
#1	.6446538	-.002287	.0139999
#2	.6424525	-.002449	.0139858
#3	.6590594	-.003638	.0139045

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2847.770	70087.61	14956.08	1895.384	4366.480
Stddev	26.904	136.33	60.04	.862	44.007
%RSD	.9447393	.1945162	.4014631	.0454725	1.007826
#1	2863.698	69946.86	15006.30	1894.408	4394.099
#2	2862.905	70219.05	14972.37	1896.040	4389.610
#3	2816.708	70096.91	14889.57	1895.704	4315.732

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04MS Acquired: 5/13/2025 22:08:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7575727	1.834176	1.001967	1.900856	.7768159	2.177493	.3886344
Stddev	.0015509	.005239	.002765	.001892	.0038109	.005986	.0005358
%RSD	.2047144	.2856331	.2759675	.0995254	.4905733	.2748874	.1378630
#1	.7593469	1.839746	1.004967	1.901897	.7750959	2.170598	.3888905
#2	.7568960	1.829347	.999521	1.898673	.7811836	2.181358	.3880186
#3	.7564752	1.833434	1.001411	1.901999	.7741682	2.180523	.3889940

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1724718	.1910250	17.85938	.3674359	.1861218	.5724940	3.423545
Stddev	.0007628	.0003610	.03435	.0017471	.0003704	.0020138	.009238
%RSD	.4422986	.1889758	.1923596	.4754864	.1990068	.3517606	.2698504
#1	.1715983	.1914320	17.82020	.3659871	.1857450	.5735067	3.418941
#2	.1730067	.1907436	17.87360	.3669445	.1861349	.5738003	3.417513
#3	.1728105	.1908995	17.88435	.3693761	.1864855	.5701748	3.434181

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4071440	3.482513	.4809679	.0693171	357.6394	.2730484	5.609641
Stddev	.0018575	.017860	.0003857	.0003745	2.3023	.0014044	.013572
%RSD	.4562182	.5128568	.0801925	.5403159	.6437470	.5143548	.2419318
#1	.4050441	3.472953	.4813948	.0688866	359.4851	.2729042	5.602931
#2	.4085722	3.471467	.4808647	.0694967	355.0595	.2745193	5.600731
#3	.4078157	3.503118	.4806444	.0695680	358.3734	.2717215	5.625260

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.51090	.3192550	.4002513	.6623046	.1893375	1.415444	5.826012
Stddev	.03020	.0016416	.0010005	.0015162	.0013995	.007095	.010432
%RSD	.2623538	.5141906	.2499683	.2289249	.7391302	.5012656	.1790567
#1	11.50814	.3182799	.4011482	.6640552	.1879658	1.410767	5.819085
#2	11.48217	.3211503	.4004334	.6614438	.1892837	1.411958	5.820941
#3	11.54238	.3183348	.3991722	.6614146	.1907631	1.423608	5.838010

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04MS Acquired: 5/13/2025 22:08:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.528863	.1901106	.2576091
Stddev	.011100	.0008130	.0001741
%RSD	.3145492	.4276429	.0675937
#1	3.533383	.1898612	.2575953
#2	3.536989	.1894516	.2574423
#3	3.516216	.1910191	.2577897

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2753.672	67016.42	14071.00	1833.315	4096.055
Stddev	12.632	245.47	17.87	6.021	11.455
%RSD	.4587199	.3662851	.1269910	.3284419	.2796541
#1	2743.688	67097.22	14078.52	1834.729	4086.315
#2	2749.456	67211.30	14050.60	1838.504	4093.175
#3	2767.873	66740.73	14083.88	1826.713	4108.675

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04MSD Acquired: 5/13/2025 22:12:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7465715	1.860778	.9701728	1.855592	.7564573	2.126914	.3522765
Stddev	.0035134	.008519	.0023274	.006562	.0017071	.043416	.0064826
%RSD	.4705994	.4578090	.2398921	.3536516	.2256693	2.041283	1.840200
#1	.7429571	1.859383	.9687582	1.863046	.7544914	2.107353	.3479550
#2	.7499742	1.869908	.9728589	1.850686	.7573159	2.096720	.3491440
#3	.7467833	1.853042	.9689011	1.853045	.7575647	2.176670	.3597304

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1709242	.1879337	14.32049	.3670275	.1846906	.4999526	3.275311
Stddev	.0022406	.0004022	.22104	.0000805	.0000447	.0009849	.006675
%RSD	1.310874	.2140289	1.543551	.0219272	.0242282	.1970051	.2037962
#1	.1695427	.1880377	14.20302	.3670516	.1847363	.5007889	3.270723
#2	.1697206	.1882738	14.18298	.3670932	.1846469	.5002019	3.282969
#3	.1735094	.1874897	14.57547	.3669378	.1846887	.4988670	3.272242

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3701936	3.133785	.4712427	.0684178	277.2190	.2798128	4.323418
Stddev	.0061768	.035133	.0007247	.0002047	2.8039	.0056250	.016737
%RSD	1.668525	1.121105	.1537868	.2992640	1.011428	2.010286	.3871329
#1	.3672578	3.103267	.4709941	.0686522	273.9876	.2764610	4.342061
#2	.3660323	3.125895	.4720590	.0682741	279.0090	.2766705	4.318508
#3	.3772908	3.172192	.4706751	.0683271	278.6604	.2863069	4.309684

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.02328	.3018248	.4015441	.6516375	.1919585	1.248797	5.648287
Stddev	.10082	.0057003	.0014269	.0012192	.0041084	.014542	.009354
%RSD	.9146166	1.888605	.3553470	.1870916	2.140268	1.164488	.1655999
#1	11.05306	.2976242	.4031785	.6526153	.1895422	1.246157	5.642435
#2	10.91093	.2995365	.4009076	.6520257	.1896311	1.235756	5.659075
#3	11.10586	.3083136	.4005463	.6502715	.1967022	1.264479	5.643352

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04MSD Acquired: 5/13/2025 22:12:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.619770	.1946012	.2484128
Stddev	.009332	.0047355	.0048309
%RSD	.3562305	2.433458	1.944705
#1	2.628624	.1926557	.2462174
#2	2.620661	.1911483	.2450696
#3	2.610023	.1999996	.2539516

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2848.315	70393.76	14355.13	1903.256	4282.155
Stddev	6.367	31.37	179.54	7.700	8.961
%RSD	.2235294	.0445585	1.250701	.4045538	.2092627
#1	2842.976	70366.44	14467.62	1895.004	4278.933
#2	2846.608	70428.01	14449.69	1904.515	4275.251
#3	2855.362	70386.82	14148.07	1910.248	4292.281

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04A Acquired: 5/13/2025 22:17:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7772440	1.870811	1.013083	1.932233	.7869031	2.161635	.3760745
Stddev	.0017458	.027746	.003315	.004641	.0030631	.002332	.0023180
%RSD	.2246145	1.483098	.3272133	.2402111	.3892621	.1078670	.6163808
#1	.7792386	1.902756	1.016867	1.937560	.7843501	2.159159	.3773117
#2	.7759938	1.852728	1.010691	1.930083	.7860596	2.161957	.3775115
#3	.7764995	1.856948	1.011690	1.929056	.7902995	2.163789	.3734003

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1736904	.1943556	16.68259	.3766445	.1902668	.5569313	3.455532
Stddev	.0002843	.0001533	.05635	.0012582	.0005615	.0005124	.005381
%RSD	.1636654	.0788618	.3377476	.3340500	.2950974	.0920101	.1557189
#1	.1740166	.1941853	16.73571	.3761560	.1899570	.5569415	3.461591
#2	.1734955	.1944826	16.68857	.3780737	.1899285	.5564138	3.451309
#3	.1735591	.1943988	16.62350	.3757039	.1909149	.5574385	3.453698

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3938437	3.396693	.4875289	.0709806	337.5325	.2786084	5.238071
Stddev	.0013325	.008689	.0003156	.0002839	3.2254	.0027829	.001658
%RSD	.3383402	.2558138	.0647261	.3999783	.9555899	.9988728	.0316552
#1	.3953767	3.392923	.4873869	.0713084	339.3470	.2813261	5.237647
#2	.3929629	3.390525	.4873093	.0708129	339.4420	.2757645	5.239900
#3	.3931915	3.406630	.4878905	.0708204	333.8085	.2787347	5.236666

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.65027	.3147056	.4091035	.6757582	.1900149	1.382141	5.967630
Stddev	.03749	.0012157	.0012362	.0012630	.0007479	.005991	.024170
%RSD	.3218106	.3863008	.3021641	.1869086	.3935823	.4334436	.4050217
#1	11.67542	.3137019	.4104503	.6759032	.1907953	1.376384	5.995456
#2	11.66821	.3160573	.4080206	.6744290	.1893045	1.388341	5.951850
#3	11.60718	.3143574	.4088394	.6769426	.1899451	1.381698	5.955584

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q1974-04A Acquired: 5/13/2025 22:17:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.253270	.1928664	.2562405
Stddev	.002254	.0006814	.0006720
%RSD	.0692747	.3533084	.2622479
#1	3.254740	.1922759	.2569028
#2	3.250675	.1936120	.2562595
#3	3.254395	.1927114	.2555592

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2778.883	67562.73	14373.92	1848.971	4145.224
Stddev	2.008	119.66	21.36	2.086	2.518
%RSD	.0722598	.1771045	.1485768	.1128290	.0607491
#1	2776.743	67514.13	14349.43	1846.753	4142.485
#2	2779.179	67475.02	14388.71	1850.895	4147.440
#3	2780.726	67699.04	14383.61	1849.263	4145.746

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q2002-01 Acquired: 5/13/2025 22:21:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0676928	.0060933	.6039384	-.044809	-.001329	91.46553	.5560495
Stddev	.0031201	.0007295	.0022910	.003583	.000415	.10581	.0015173
%RSD	4.609165	11.97172	.3793373	7.995525	31.21357	.1156824	.2728769
#1	.0681790	.0056726	.6037108	-.041664	-.000990	91.58695	.5577195
#2	.0643582	.0069356	.6017697	-.044053	-.001792	91.41657	.5556732
#3	.0705413	.0056717	.6063346	-.048709	-.001206	91.39306	.5547557

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0074185	-.001881	339.6026	.1747427	.0954879	.2647903	218.3009
Stddev	.0000538	.000047	1.2132	.0006969	.0005615	.0001524	.5458
%RSD	.7252307	2.476003	.3572335	.3988170	.5879804	.0575483	.2500323
#1	.0073610	-.001828	340.9561	.1751306	.0948994	.2648979	217.7158
#2	.0074268	-.001912	339.2385	.1751593	.0955465	.2648570	218.3906
#3	.0074676	-.001904	338.6131	.1739381	.0960177	.2646159	218.7964

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.840219	164.0994	.1758804	.0014966	7.450840	.2632534	.9765182
Stddev	.006638	.0284	.0012167	.0006171	.028109	.0019232	.0047062
%RSD	.1728566	.0173014	.6918046	41.23277	.3772629	.7305651	.4819317
#1	3.847829	164.0899	.1745567	.0007846	7.456094	.2614195	.9755814
#2	3.835623	164.0770	.1761345	.0018277	7.420475	.2652550	.9816222
#3	3.837204	164.1314	.1769501	.0018775	7.475952	.2630858	.9723508

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.575011	.0611624	.0048463	.0599891	2.121373	3.111752	6.333152
Stddev	.045775	.0022307	.0000678	.0003751	.006444	.021734	.016943
%RSD	.6042860	3.647165	1.399783	.6252719	.3037800	.6984445	.2675211
#1	7.542224	.0611010	.0049210	.0603728	2.128511	3.092831	6.326850
#2	7.555500	.0589630	.0048294	.0596233	2.115983	3.106934	6.320264
#3	7.627308	.0634231	.0047885	.0599714	2.119626	3.135490	6.352342

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: Q2002-01 Acquired: 5/13/2025 22:21:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.118947	.1843955	.3211116
Stddev	.018234	.0007786	.0013487
%RSD	.5846256	.4222635	.4199971
#1	3.107858	.1852936	.3226688
#2	3.108991	.1839840	.3203488
#3	3.139992	.1839090	.3203172

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2943.904	72064.74	15719.79	1939.067	3825.171
Stddev	7.707	131.71	28.49	6.546	12.387
%RSD	.2617919	.1827694	.1812407	.3375776	.3238165
#1	2951.202	72144.08	15687.53	1946.624	3834.443
#2	2944.665	72137.44	15730.30	1935.167	3829.965
#3	2935.844	71912.70	15741.52	1935.409	3811.104

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV10 Acquired: 5/13/2025 22:25:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.820791	4.897807	4.672581	4.870369	4.861173	9.425387
Stddev	.020864	.092676	.004817	.024851	.003555	.031782
%RSD	.4327904	1.892192	.1030862	.5102436	.0731246	.3372002
#1	4.813461	4.849520	4.668614	4.861273	4.859534	9.397772
#2	4.804581	4.839246	4.671189	4.851348	4.858734	9.460127
#3	4.844331	5.004655	4.677941	4.898486	4.865252	9.418262

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.218895	.2366895	2.321528	22.53616	.9437830	2.335555
Stddev	.130146	.0009216	.001530	.11480	.0040858	.002991
%RSD	1.411729	.3893836	.0659123	.5093987	.4329213	.1280598
#1	9.301013	.2358081	2.320571	22.41221	.9468836	2.335603
#2	9.286833	.2376467	2.320720	22.63882	.9391532	2.332540
#3	9.068838	.2366138	2.323293	22.55747	.9453123	2.338522

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.202855	4.648718	2.272331	22.58241	2.329981	1.197921
Stddev	.001810	.004113	.014903	.05838	.001329	.002489
%RSD	.1504891	.0884824	.6558323	.2584986	.0570407	.2078052
#1	1.202855	4.643971	2.255171	22.51742	2.329377	1.200782
#2	1.201045	4.650964	2.282027	22.63039	2.329062	1.196253
#3	1.204666	4.651220	2.279794	22.59940	2.331505	1.196727

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.47213	2.320010	2.394322	23.43608	4.759554	4.827667
Stddev	.08807	.011844	.011600	.08366	.017407	.012750
%RSD	.3752257	.5105270	.4844939	.3569809	.3657337	.2640929
#1	23.56132	2.309931	2.381105	23.42315	4.743534	4.817389
#2	23.38522	2.333055	2.402818	23.35963	4.778077	4.823677
#3	23.46984	2.317044	2.399042	23.52545	4.757050	4.841934

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCV10 Acquired: 5/13/2025 22:25:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.662863	4.629091	4.652360	F 4.494084	4.690841	4.734385
Stddev	.018683	.021603	.020191	.039187	.013806	.019880
%RSD	.4006838	.4666699	.4339848	.8719644	.2943263	.4199042
#1	4.654273	4.605197	4.664279	4.459464	4.679845	4.711437
#2	4.650020	4.647242	4.629048	4.486162	4.686343	4.746358
#3	4.684296	4.634833	4.663753	4.536627	4.706336	4.745360

Elem	Sr4077
Units	ppm
Avg	4.684272
Stddev	.045909
%RSD	.9800573
#1	4.708218
#2	4.713257
#3	4.631341

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2839.069	69098.29	13723.30	1865.091	4322.090
Stddev	2.466	273.59	22.89	2.739	4.701
%RSD	.0868429	.3959365	.1667822	.1468730	.1087578
#1	2840.307	68816.12	13741.67	1867.803	4324.222
#2	2840.670	69362.40	13697.66	1865.143	4325.346
#3	2836.229	69116.33	13730.56	1862.325	4316.701

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB10 Acquired: 5/13/2025 22:29:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000841	-.000860	.0006163	.0021556	-.001113	.0028506	-.008481
Stddev	.000006	.001304	.0010560	.0059025	.001206	.0048637	.001019
%RSD	.7349944	151.7081	171.3458	273.8251	108.3591	170.6239	12.01323
#1	-.000836	-.001543	-.000120	.0042032	-.001167	.0010355	-.009039
#2	-.000839	.000644	.001826	-.004498	-.002290	.0083608	-.009098
#3	-.000847	-.001680	.000143	.006762	.000119	-.000845	-.007305

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000083	.0000966	.0052569	-.000166	-.000079	-.000180	.0018371
Stddev	.000007	.0000596	.0023014	.000377	.000255	.000279	.0010250
%RSD	7.954207	61.66321	43.77967	226.9211	321.1255	155.0748	55.79368
#1	-.000090	.0000583	.0037378	.000249	-.000107	-.000371	.0028848
#2	-.000077	.0001653	.0041281	-.000261	-.000320	.000140	.0017899
#3	-.000081	.0000663	.0079048	-.000486	.000188	-.000309	.0008365

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000307	-.000822	.0002858	-.000353	-.140454	-.000778	.0000404
Stddev	.0000932	.005250	.0001107	.000414	.010798	.001580	.0000395
%RSD	303.6567	638.4391	38.73818	117.3041	7.688188	203.1101	97.81390
#1	.0000962	-.003873	.0004133	-.000715	-.128416	-.000827	.0000722
#2	-.000076	.005240	.0002303	-.000441	-.149288	-.002332	-.000004
#3	.000072	-.003834	.0002138	.000098	-.143657	.000826	.000053

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0686282	-.002803	.0005875	-.000734	.0005885	-.001969	.0068051
Stddev	.0241455	.000873	.0001073	.000135	.0006018	.003221	.0028809
%RSD	35.18309	31.15198	18.27063	18.38145	102.2591	163.5913	42.33391
#1	.0963076	-.003264	.0007011	-.000679	.0008539	-.005687	.0050314
#2	.0518919	-.001796	.0005737	-.000635	.0010119	-.000019	.0052548
#3	.0576849	-.003349	.0004878	-.000888	-.000100	-.000201	.0101292

Reviewed By:jaswal
On:5/14/2025 12:29:12 PM
Inst Id :P4
LB :LB135756

Sample Name: CCB10 Acquired: 5/13/2025 22:29:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v42) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001047	-.001964	.0000564
Stddev	.001507	.000936	.0000271
%RSD	143.9411	47.67754	48.18694
#1	-.001146	-.001118	.0000709
#2	.000507	-.001803	.0000731
#3	-.002501	-.002970	.0000250

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2981.401	72233.56	15211.68	1984.436	4691.707
Stddev	9.207	564.28	54.00	19.216	10.876
%RSD	.3088070	.7811935	.3550071	.9683464	.2318198
#1	2991.478	71699.77	15229.57	1964.780	4704.079
#2	2979.298	72824.06	15151.01	2003.180	4687.390
#3	2973.428	72176.85	15254.47	1985.348	4683.652

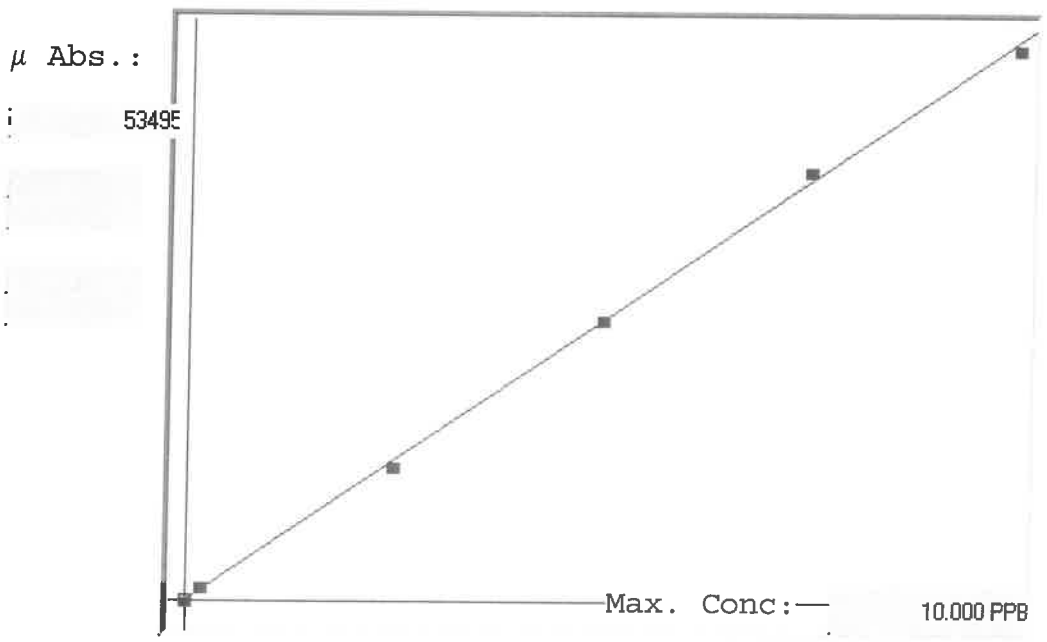
Reviewed By:jaswal
On:5/13/2025 11:15:56 PM
Inst Id :CV1
LB :LB135733

LB135733

7471B

INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 1.8445e-004

C= -5.1711e-003

Rho= 0.9995498

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	%D
0.0	0.000	-0.003	-0.003	14	0.000	14					1
0.2	0.200	0.238	0.038	1317	0.0 %	1317					19
2.5	2.500	2.386	-0.114	12964	0.0 %	12964					-5
5.0	5.000	5.017	0.017	27227	0.0 %	27227					0
7.5	7.500	7.700	0.200	41771	0.0 %	41771					3
10.0	10.000	9.862	-0.138	53495	0.0 %	53495					-1

Reviewed By:jaswal
On:5/13/2025 11:15:56 PM
Inst Id :CV1
LB :LB135733

LB135733 INSTRUMENT ID : CV1

Method: 7471B Operator: Admin Date of Analysis: 12 May 2025 09:13:01

Sample ID	Extended ID	µ Abs.	Conc.	Stnd Conc	Method	Units	Date	Type	Type
0.0 - 1	S0	14	-	0.0000	7471B	PPB	12 May 2025 09:36:06	S	Std
0.2 - 1	S0-2	1317	-	0.2000	7471B	PPB	12 May 2025 09:38:23	S	Std
2.5 - 1	S2.5	12964	-	2.5000	7471B	PPB	12 May 2025 09:40:40	S	Std
5.0 - 1	S5	27227	-	5.0000	7471B	PPB	12 May 2025 09:45:41	S	Std
7.5 - 1	S7.5	41771	-	7.5000	7471B	PPB	12 May 2025 09:47:59	S	Std
10.0 - 1	S10	53495	-	10.0000	7471B	PPB	12 May 2025 09:53:41	S	Std
ICV05 - 1	ICV05	21044	3.8765		-7471B	PPB	12 May 2025 09:56:39	U	SMPL
ICB05 - 1	ICB05	-322	-0.0646		-7471B	PPB	12 May 2025 09:58:55	U	SMPL
CCV07 - 1	CCV07	26289	4.8439		-7471B	PPB	12 May 2025 10:06:27	U	SMPL
CCB07 - 1	CCB07	-458	-0.0897		-7471B	PPB	12 May 2025 10:08:45	U	SMPL
CRA - 1	CRA	1107	0.1990		-7471B	PPB	12 May 2025 10:11:03	U	SMPL
HighStd - 1	HighStd	54484	10.0446		-7471B	PPB	12 May 2025 10:13:18	U	SMPL
ChkStd - 1	ChkStd	37085	6.8353		-7471B	PPB	12 May 2025 10:15:34	U	SMPL
PB167937BL - 1	PB167937BL	-432	-0.0849		-7471B	PPB	12 May 2025 10:18:03	U	SMPL
PB167937BS - 1	PB167937BS	21247	3.9139		-7471B	PPB	12 May 2025 10:22:59	U	SMPL
Q1982-01 - 1	TP-1	1187	0.2138		-7471B	PPB	12 May 2025 10:25:16	U	SMPL
Q1982-02 - 1	TP-2B	366	0.0623		-7471B	PPB	12 May 2025 10:27:35	U	SMPL
Q1982-03 - 1	TP-3	573	0.1005		-7471B	PPB	12 May 2025 10:29:54	U	SMPL
Q1982-04 - 1	TP-4	5280	0.9687		-7471B	PPB	12 May 2025 10:32:13	U	SMPL
Q1982-05 - 1	TP-5	686	0.1214		-7471B	PPB	12 May 2025 10:34:29	U	SMPL
CCV08 - 1	CCV08	26545	4.8911		-7471B	PPB	12 May 2025 10:36:47	U	SMPL
CCB08 - 1	CCB08	-342	-0.0683		-7471B	PPB	12 May 2025 10:39:02	U	SMPL
Q1982-06 - 1	TP-6	2713	0.4953		-7471B	PPB	12 May 2025 10:41:21	U	SMPL
Q1982-07 - 1	TP-7	1489	0.2695		-7471B	PPB	12 May 2025 10:43:36	U	SMPL
Q1982-08 - 1	TP-8	1770	0.3213		-7471B	PPB	12 May 2025 10:45:54	U	SMPL
Q1983-01 - 1	OR-636-COMP-01	2064	0.3755		-7471B	PPB	12 May 2025 10:48:10	U	SMPL
Q1983-01DUP - 1	OR-636-COMP-01DUP	2382	0.4342		-7471B	PPB	12 May 2025 10:50:27	U	SMPL
Q1983-01MS - 1	OR-636-COMP-01MS	20452	3.7673		-7471B	PPB	12 May 2025 10:52:44	U	SMPL
Q1983-01MSD - 1	OR-636-COMP-01MSD	19926	3.6702		-7471B	PPB	12 May 2025 10:55:02	U	SMPL
Q1983-07 - 1	OR-636-COMP-02	1475	0.2669		-7471B	PPB	12 May 2025 10:57:22	U	SMPL
Q1983-13 - 1	OR-636-COMP-03	4292	0.7865		-7471B	PPB	12 May 2025 10:59:42	U	SMPL
Q1983-19 - 1	OR-636-COMP-04	2390	0.4357		-7471B	PPB	12 May 2025 11:01:58	U	SMPL
CCV09 - 1	CCV09	26892	4.9552		-7471B	PPB	12 May 2025 11:09:28	U	SMPL
CCB09 - 1	CCB09	-287	-0.0581		-7471B	PPB	12 May 2025 11:11:44	U	SMPL
Q1983-25 - 1	OR-636-COMP-05	3337	0.6104		-7471B	PPB	12 May 2025 11:14:02	U	SMPL
Q1983-31 - 1	OR-636-COMP-06	7909	1.4537		-7471B	PPB	12 May 2025 11:16:18	U	SMPL
Q1983-37 - 1	OR-636-COMP-07	3035	0.5546		-7471B	PPB	12 May 2025 11:18:35	U	SMPL
Q1983-43 - 1	OR-636-COMP-08	3325	0.6081		-7471B	PPB	12 May 2025 11:20:52	U	SMPL
Q1983-49 - 1	OR-636-COMP-09	2051	0.3731		-7471B	PPB	12 May 2025 11:23:10	U	SMPL
PB167938BL - 1	PB167938BL	59	0.0057		-7471B	PPB	12 May 2025 11:25:27	U	SMPL
PB167938BS - 1	PB167938BS	20865	3.8435		-7471B	PPB	12 May 2025 11:27:44	U	SMPL
Q1984-01 - 1	OU4-PCS-TC-33-050725	646	0.1140		-7471B	PPB	12 May 2025 11:30:01	U	SMPL
Q1984-03 - 1	OU4-PCS-TC-34-050725	351	0.0596		-7471B	PPB	12 May 2025 11:32:21	U	SMPL
Q1984-05 - 1	OU4-PCS-TC-35-050725	224	0.0361		-7471B	PPB	12 May 2025 11:34:37	U	SMPL
CCV10 - 1	CCV10	26911	4.9587		-7471B	PPB	12 May 2025 11:36:52	U	SMPL
CCB10 - 1	CCB10	-265	-0.0541		-7471B	PPB	12 May 2025 11:39:08	U	SMPL
Q1984-07 - 1	OU4-TS-24-050725	3202	0.5854		-7471B	PPB	12 May 2025 11:41:27	U	SMPL
Q1984-09 - 1	OU4-TS-25-050725	3820	0.6994		-7471B	PPB	12 May 2025 11:43:43	U	SMPL
Q1984-11 - 1	OU4-TS-26-050725	2018	0.3671		-7471B	PPB	12 May 2025 11:46:00	U	SMPL
Q1984-13 - 1	OU4-TS-27-050725	22468	4.1391		-7471B	PPB	12 May 2025 11:48:16	U	SMPL
Q1984-15 - 1	OU4-TS-28-050725	934	0.1671		-7471B	PPB	12 May 2025 11:50:32	U	SMPL
Q1986-01 - 1	COMP-8	1244	0.2243		-7471B	PPB	12 May 2025 11:56:45	U	SMPL
Q1986-03 - 1	COMP-9	2258	0.4113		-7471B	PPB	12 May 2025 12:00:08	U	SMPL
Q1986-05 - 1	COMP-10	627	0.1105		-7471B	PPB	12 May 2025 12:02:56	U	SMPL
Q1986-07 - 1	COMP-11	1494	0.2704		-7471B	PPB	12 May 2025 12:05:17	U	SMPL
Q1986-09 - 1	COMP-218	16079	2.9607		-7471B	PPB	12 May 2025 12:07:35	U	SMPL
CCV11 - 1	CCV11	25591	4.7152		-7471B	PPB	12 May 2025 12:42:27	U	SMPL
CCB11 - 1	CCB11	-77	-0.0194		-7471B	PPB	12 May 2025 12:53:15	U	SMPL
Q1986-09DUP - 1	COMP-218DUP	14634	2.6941		-7471B	PPB	12 May 2025 12:58:34	U	SMPL
Q1986-09MS - 1	COMP-218MS	34766	6.4075		-7471B	PPB	12 May 2025 13:00:52	U	SMPL
Q1986-09MSD - 1	COMP-218MSD	34913	6.4347		-7471B	PPB	12 May 2025 13:03:10	U	SMPL
Q2002-01 - 1	EO-02-05092025	46810	8.6291		-7471B	PPB	12 May 2025 13:05:38	U	SMPL
Q1983-01LX5 - 1		-879	-0.1673		-7471B	PPB	12 May 2025 13:08:04	U	SMPL
Q1983-01A - 1		19585	3.6074		-7471B	PPB	12 May 2025 13:10:38	U	SMPL
Q1986-09LX5 - 1		2350	0.4283		-7471B	PPB	12 May 2025 13:12:56	U	SMPL
Q1986-09A - 1		37349	6.8840		-7471B	PPB	12 May 2025 13:15:27	U	SMPL
CCV12 - 1	CCV12	26984	4.9721		-7471B	PPB	12 May 2025 13:17:48	U	SMPL
CCB12 - 1	CCB12	-487	-0.0950		-7471B	PPB	12 May 2025 13:27:46	U	SMPL

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB167930

SOP ID : M3050B-Digestion-20

SDG No : N/A

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: 05/09/2025 **Time :** 10:05 **Temp :** 96 °C

End Digest Date: 05/09/2025 **Time :** 12:21 **Temp :** 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. #3

Dig Technician Signature: SHB.

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	1.00	M6005
LFS-2	1.00	M6016
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
Conc. HNO3	5.00	M6158
1:1 HNO3	10.00	MP84041
30% H2O2	3.00	M6125
Conc. HCL	10.00	M6151
PTFE Boiling Stones	N/A	M5581
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
05/09/25 13:21	SHB. met. dig	[illegible]
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB167930

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
PB167930BL	PBS930	N/A	2.06	100	Colorless	Colorless	Fine	N/A	N/A	1
PB167930BS	LCS930	N/A	2.14	100	Colorless	Colorless	Fine	N/A	M6005,M6016	2
Q1982-01	TP-1	N/A	2.13	100	Brown	Yellow	Medium	N/A	N/A	3
Q1982-02	TP-2B	N/A	2.19	100	Brown	Yellow	Medium	N/A	N/A	4
Q1982-03	TP-3	N/A	2.11	100	Brown	Yellow	Medium	N/A	N/A	5
Q1982-03MS	TP-3MS	N/A	2.21	100	Brown	Yellow	Medium	N/A	M6005,M6016	7
Q1982-03MSD	TP-3MSD	N/A	2.18	100	Brown	Yellow	Medium	N/A	M6005,M6016	8
Q1982-03DUP	TP-3DUP	N/A	2.29	100	Brown	Yellow	Medium	N/A	N/A	6
Q1982-04	TP-4	N/A	2.23	100	Brown	Yellow	Medium	N/A	N/A	9
Q1982-05	TP-5	N/A	2.22	100	Brown	Yellow	Medium	N/A	N/A	10
Q1982-06	TP-6	N/A	2.18	100	Brown	Yellow	Medium	N/A	N/A	11
Q1982-07	TP-7	N/A	2.33	100	Brown	Yellow	Medium	N/A	N/A	12
Q1982-08	TP-8	N/A	2.13	100	Brown	Yellow	Medium	N/A	N/A	13
Q1986-01	COMP-8	N/A	2.18	100	Brown	Yellow	Medium	N/A	N/A	14
Q1986-03	COMP-9	N/A	2.24	100	Brown	Yellow	Medium	N/A	N/A	15
Q1986-05	COMP-10	N/A	2.39	100	Brown	Yellow	Medium	N/A	N/A	16
Q1986-07	COMP-11	N/A	2.21	100	Brown	Yellow	Medium	N/A	N/A	17
Q1986-09	COMP-218	N/A	2.28	100	Brown	Yellow	Medium	N/A	N/A	18

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB167930 **WorkList ID :** 189417 **Department :** Digestion **Date :** 05-09-2025 09:39:23

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1982-01	TP-1	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L41	05/07/2025	6010D
Q1982-02	TP-2B	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L41	05/07/2025	6010D
Q1982-03	TP-3	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L41	05/07/2025	6010D
Q1982-04	TP-4	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L41	05/07/2025	6010D
Q1982-05	TP-5	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L41	05/07/2025	6010D
Q1982-06	TP-6	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L41	05/07/2025	6010D
Q1982-07	TP-7	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L41	05/07/2025	6010D
Q1982-08	TP-8	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L41	05/07/2025	6010D
Q1986-01	COMP-8	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L41	05/07/2025	6010D
Q1986-03	COMP-9	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L61	05/08/2025	6010D
Q1986-05	COMP-10	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L61	05/08/2025	6010D
Q1986-07	COMP-11	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L61	05/08/2025	6010D
Q1986-09	COMP-218	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L61	05/08/2025	6010D

Date/Time 05/09/25 9:55
Raw Sample Received by: SDG. met. dlo
Raw Sample Relinquished by:

Date/Time 05/09/25 10:55
Raw Sample Received by:
Raw Sample Relinquished by: SDG. met. dlo

Alliance TECHNICAL GROUP

Soil/Sludge Mercury Preparation Sheet

PB167937

SOP ID : M7471B-Mercury-18

SDG No : NA

Matrix : SOIL

Pippete ID: HG A

Balance ID : M SC-3

Filter paper ID : NA

pH Strip ID : NA

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 05/09/2025 **Time :** 16:05 **Temp :** 95 °C

End Digest Date: 05/09/2025 **Time :** 16:35 **Temp :** 94 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MB

Supervisor Signature: M

Temp : 1. 95°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP85632
CCV	30mL	MP85634
CRA	30mL	MP85636
Blank Spike	0.48mL	MP85625
Matrix Spike	0.48mL	MP85625

Chemical Used	ML/SAMPLE USED	Lot Number
AQUA REGIA	1.5mL	MP85638
KMnO4 (5%)	4.5mL	MP85241
Hydroxylamine HCL (12%)	2.0mL	MP85243
PTFE Boiling Stones	----------	M4583
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	30mL	MP85626
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP85627
2.5 ppb	S2.5	30mL	MP85628
5.0 ppb	S5.0	30mL	MP85629
7.5 ppb	S7.5	30mL	MP85630
10.0 ppb	S10.0	30mL	MP85631
ICV	ICV	30mL	MP85632
ICB	ICB	30mL	MP85633
CCV	CCV	30mL	MP85634
CCB	CCB	30mL	MP85635
CRI	CRI	30mL	MP85636
CHK STD	CHK STD	30mL	MP85637

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
5/9/25 @ 17:10	MB - DIG. LAB	MB - METAL LAB
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Mercury Preparation Sheet

PB167937

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Comment	Prep Pos
PB167937BL	PBS937	0.55	35	NA	N/A	3-1
PB167937BS	LCS937	0.53	35	NA	MP85625	2
Q1982-01	TP-1	0.51	35	NA	N/A	3
Q1982-02	TP-2B	0.53	35	NA	N/A	4
Q1982-03	TP-3	0.54	35	NA	N/A	5
Q1982-04	TP-4	0.58	35	NA	N/A	6
Q1982-05	TP-5	0.58	35	NA	N/A	7
Q1982-06	TP-6	0.58	35	NA	N/A	8
Q1982-07	TP-7	0.55	35	NA	N/A	9
Q1982-08	TP-8	0.57	35	NA	N/A	10
Q1983-01	OR-636-COMP-01	0.56	35	NA	N/A	11
Q1983-01DUP	OR-636-COMP-01DUP	0.57	35	NA	N/A	12
Q1983-01MS	OR-636-COMP-01MS	0.55	35	NA	MP85625	13
Q1983-01MSD	OR-636-COMP-01MSD	0.58	35	NA	MP85625	14
Q1983-07	OR-636-COMP-02	0.55	35	NA	N/A	15
Q1983-13	OR-636-COMP-03	0.54	35	NA	N/A	16
Q1983-19	OR-636-COMP-04	0.53	35	NA	N/A	17
Q1983-25	OR-636-COMP-05	0.58	35	NA	N/A	18
Q1983-31	OR-636-COMP-06	0.52	35	NA	N/A	19
Q1983-37	OR-636-COMP-07	0.59	35	NA	N/A	20
Q1983-43	OR-636-COMP-08	0.57	35	NA	N/A	21
Q1983-49	OR-636-COMP-09	0.56	35	NA	N/A	22

WORKLIST(Hardcopy Internal Chain)

WorkList Name : 050925_7471 **WorkList ID :** 189408 **Department :** Digestion **Date :** 05-09-2025 08:50:14

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1982-01	TP-1	Solid	Mercury	Cool 4 deg C	CAMP02	L41	05/06/2025	7471B
Q1982-02	TP-2B	Solid	Mercury	Cool 4 deg C	CAMP02	L41	05/06/2025	7471B
Q1982-03	TP-3	Solid	Mercury	Cool 4 deg C	CAMP02	L41	05/06/2025	7471B
Q1982-04	TP-4	Solid	Mercury	Cool 4 deg C	CAMP02	L41	05/06/2025	7471B
Q1982-05	TP-5	Solid	Mercury	Cool 4 deg C	CAMP02	L41	05/07/2025	7471B
Q1982-06	TP-6	Solid	Mercury	Cool 4 deg C	CAMP02	L41	05/07/2025	7471B
Q1982-07	TP-8	Solid	Mercury	Cool 4 deg C	CAMP02	L41	05/07/2025	7471B
Q1982-08	TP-9	Solid	Mercury	Cool 4 deg C	CAMP02	L41	05/07/2025	7471B
Q1983-01	OR-636-COMP-01	Solid	Mercury	Cool 4 deg C	CAMP02	L41	05/07/2025	7471B
Q1983-07	OR-636-COMP-02	Solid	Mercury	Cool 4 deg C	PSEG03	L41	05/07/2025	7471B
Q1983-13	OR-636-COMP-03	Solid	Mercury	Cool 4 deg C	PSEG03	L41	05/07/2025	7471B
Q1983-19	OR-636-COMP-04	Solid	Mercury	Cool 4 deg C	PSEG03	L41	05/07/2025	7471B
Q1983-25	OR-636-COMP-05	Solid	Mercury	Cool 4 deg C	PSEG03	L41	05/07/2025	7471B
Q1983-31	OR-636-COMP-06	Solid	Mercury	Cool 4 deg C	PSEG03	L41	05/07/2025	7471B
Q1983-37	OR-636-COMP-07	Solid	Mercury	Cool 4 deg C	PSEG03	L41	05/07/2025	7471B
Q1983-43	OR-636-COMP-08	Solid	Mercury	Cool 4 deg C	PSEG03	L41	05/07/2025	7471B
Q1983-49	OR-636-COMP-09	Solid	Mercury	Cool 4 deg C	PSEG03	L41	05/07/2025	7471B

Date/Time 5/9/25 @ 17:30

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Date/Time 5/10/25 @ 16:40

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

PERCENT SOLID

Supervisor: rubina
Analyst: jignesh
Date: 5/9/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:20
In Date: 05/08/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:27
Out Date: 05/09/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135705

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q1929-14	WC-A4-02-C	1	1.15	10.65	11.8	10.38	86.7	
Q1929-15	WC-A1-03-C	2	1.18	10.06	11.24	9.00	77.7	
Q1929-16	WC-A1-04-C	3	1.17	10.24	11.41	9.52	81.5	
Q1982-01	TP-1	4	1.15	10.33	11.48	9.51	80.9	
Q1982-02	TP-2B	5	1.18	10.20	11.38	9.85	85.0	
Q1982-03	TP-3	6	1.18	10.54	11.72	10.74	90.7	
Q1982-04	TP-4	7	1.19	10.07	11.26	9.99	87.4	
Q1982-05	TP-5	8	1.18	10.08	11.26	10.24	89.9	
Q1982-06	TP-6	9	1.16	10.74	11.9	10.42	86.2	
Q1982-07	TP-7	10	1.19	10.23	11.42	9.75	83.7	
Q1982-08	TP-8	11	1.16	10.42	11.58	9.63	81.3	
Q1983-01	OR-636-COMP-01	12	1.16	10.07	11.23	10.1	88.8	
Q1983-02	OR-636-VOC-01	13	1.18	10.23	11.41	9.74	83.7	
Q1983-03	OR-636-01	14	1.16	9.92	11.08	9.73	86.4	
Q1983-04	OR-636-02	15	1.19	10.30	11.49	10.15	87.0	
Q1983-05	OR-636-03	16	1.15	9.56	10.71	9.77	90.2	
Q1983-07	OR-636-COMP-02	17	1.17	10.61	11.78	10.6	88.9	
Q1983-08	OR-636-VOC-02	18	1.12	10.72	11.84	10.58	88.2	
Q1983-09	OR-636-04	19	1.17	10.05	11.22	9.89	86.8	
Q1983-10	OR-636-05	20	1.19	10.59	11.78	10.78	90.6	
Q1983-11	OR-636-06	21	1.18	10.14	11.32	10.02	87.2	
Q1983-13	OR-636-COMP-03	22	1.14	10.30	11.44	10.75	93.3	
Q1983-14	OR-636-VOC-03	23	1.15	10.36	11.51	10.61	91.3	
Q1983-15	OR-636-07	24	1.16	10.64	11.8	11.39	96.1	
Q1983-16	OR-636-08	25	1.14	10.73	11.87	10.89	90.9	
Q1983-17	OR-636-09	26	1.18	10.44	11.62	10.74	91.6	
Q1983-19	OR-636-COMP-04	27	1.18	10.81	11.99	11.05	91.3	
Q1983-20	OR-636-VOC-04	28	1.15	10.33	11.48	9.6	81.8	

PERCENT SOLID

Supervisor: rubina
Analyst: jignesh
Date: 5/9/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:20
In Date: 05/08/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:27
Out Date: 05/09/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135705

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q1983-21	OR-636-10	29	1.19	10.51	11.7	10.72	90.7	
Q1983-22	OR-636-11	30	1.19	10.59	11.78	10.5	87.9	
Q1983-23	OR-636-12	31	1.15	10.43	11.58	9.76	82.6	
Q1983-25	OR-636-COMP-05	32	1.17	9.97	11.14	9.07	79.2	
Q1983-26	OR-636-VOC-05	33	1.16	10.04	11.2	9.08	78.9	
Q1983-27	OR-636-13	34	1.14	10.53	11.67	11.04	94.0	
Q1983-28	OR-636-14	35	1.15	10.52	11.67	10.00	84.1	
Q1983-29	OR-636-15	36	1.16	10.35	11.51	9.74	82.9	
Q1983-31	OR-636-COMP-06	37	1.15	9.84	10.99	9.52	85.1	
Q1983-32	OR-636-VOC-06	38	1.17	10.61	11.78	10.78	90.6	
Q1983-33	OR-636-16	39	1.19	9.73	10.92	10.4	94.7	
Q1983-34	OR-636-17	40	1.13	10.55	11.68	10.37	87.6	
Q1983-35	OR-636-18	41	1.18	10.15	11.33	9.59	82.9	
Q1983-37	OR-636-COMP-07	42	1.18	10.44	11.62	10.35	87.8	
Q1983-38	OR-636-VOC-07	43	1.12	10.77	11.89	10.88	90.6	
Q1983-39	OR-636-19	44	1.15	9.66	10.81	9.34	84.8	
Q1983-40	OR-636-20	45	1.18	10.29	11.47	10.21	87.8	
Q1983-41	OR-636-21	46	1.14	10.58	11.72	10.5	88.5	
Q1983-43	OR-636-COMP-08	47	1.15	10.25	11.4	10.45	90.7	
Q1983-44	OR-636-VOC-08	48	1.16	9.97	11.13	10.78	96.5	
Q1983-45	OR-636-22	49	1.13	10.62	11.75	10.91	92.1	
Q1983-46	OR-636-23	50	1.19	9.96	11.15	10.05	89.0	
Q1983-47	OR-636-24	51	1.13	10.33	11.46	11.18	97.3	
Q1983-49	OR-636-COMP-09	52	1.13	10.36	11.49	10.31	88.6	
Q1983-50	OR-636-VOC-09	53	1.19	10.54	11.73	10.1	84.5	
Q1983-51	OR-636-25	54	1.16	10.09	11.25	9.61	83.7	
Q1983-52	OR-636-26	55	1.18	10.11	11.29	9.93	86.5	
Q1983-53	OR-636-27	56	1.16	9.66	10.82	10.34	95.0	

PERCENT SOLID

Supervisor: rubina
Analyst: jignesh
Date: 5/9/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:20
In Date: 05/08/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:27
Out Date: 05/09/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135705

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q1984-01	OU4-PCS-TC-33-050725	57	1.15	9.96	11.11	10.62	95.1	
Q1984-03	OU4-PCS-TC-34-050725	58	1.16	10.82	11.98	11.51	95.7	
Q1984-05	OU4-PCS-TC-35-050725	59	1.19	9.50	10.69	10.16	94.4	
Q1984-07	OU4-TS-24-050725	60	1.15	10.00	11.15	8.12	69.7	
Q1984-09	OU4-TS-25-050725	61	1.17	10.51	11.68	8.32	68.0	
Q1984-11	OU4-TS-26-050725	62	1.17	10.18	11.35	7.29	60.1	
Q1984-13	OU4-TS-27-050725	63	1.16	9.67	10.83	7.2	62.5	
Q1984-15	OU4-TS-28-050725	64	1.16	9.98	11.14	7.61	64.6	
Q1986-01	COMP-8	65	1.18	10.04	11.22	10.5	92.8	
Q1986-03	COMP-9	66	1.18	10.05	11.23	10.44	92.1	
Q1986-05	COMP-10	67	1.16	9.77	10.93	9.84	88.8	
Q1986-07	COMP-11	68	1.19	10.33	11.52	10.55	90.6	
Q1986-09	COMP-218	69	1.16	10.18	11.34	10.45	91.3	
Q1987-01	GC1	70	1.14	9.89	11.03	9.7	86.6	
Q1990-01	43025-A	71	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1990-02	43025-B	72	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1991-01	1217	73	1.00	1.00	2.00	2.00	100.0	oil sample
Q1991-03	30425	74	1.00	1.00	2.00	2.00	100.0	oil sample

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

WORKLIST(Hardcopy Internal Chain)

VB 135705

WorkList Name : %1-050825 **WorkList ID :** 189376 **Department :** Wet-Chemistry **Date :** 05-08-2025 08:10:25

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1929-14	WC-A4-02-C	Solid	Percent Solids	Cool 4 deg C	ENTA05	L41	04/30/2025	Chemtech -SO
Q1929-15	WC-A1-03-C	Solid	Percent Solids	Cool 4 deg C	ENTA05	L41	04/30/2025	Chemtech -SO
Q1929-16	WC-A1-04-C	Solid	Percent Solids	Cool 4 deg C	ENTA05	L41	04/30/2025	Chemtech -SO
Q1982-01	TP-1	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/07/2025	Chemtech -SO
Q1982-02	TP-2B	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/07/2025	Chemtech -SO
Q1982-03	TP-3	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/07/2025	Chemtech -SO
Q1982-04	TP-4	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/07/2025	Chemtech -SO
Q1982-05	TP-5	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/07/2025	Chemtech -SO
Q1982-06	TP-6	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/07/2025	Chemtech -SO
Q1982-07	TP-7	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/07/2025	Chemtech -SO
Q1982-08	TP-8	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/07/2025	Chemtech -SO
Q1983-01	OR-636-COMP-01	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/07/2025	Chemtech -SO
Q1983-02	OR-636-VOC-01	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-03	OR-636-01	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-04	OR-636-02	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-05	OR-636-03	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-07	OR-636-COMP-02	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-08	OR-636-VOC-02	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-09	OR-636-04	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-10	OR-636-05	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-11	OR-636-06	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO

Date/Time 05108125 151.00

Raw Sample Received by: [illegible] (WQC)

Raw Sample Relinquished by: [signature]

Date/Time 05108125 1730

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [illegible] (WQC)

WORKLIST(Hardcopy Internal Chain)

NB 135705

WorkList Name : %1-050825 **WorkList ID :** 189376 **Department :** Wet-Chemistry **Date :** 05-08-2025 08:10:25

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1983-13	OR-636-COMP-03	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-14	OR-636-VOC-03	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-15	OR-636-07	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-16	OR-636-08	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-17	OR-636-09	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-19	OR-636-COMP-04	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-20	OR-636-VOC-04	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-21	OR-636-10	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-22	OR-636-11	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-23	OR-636-12	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-25	OR-636-COMP-05	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-26	OR-636-VOC-05	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-27	OR-636-13	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-28	OR-636-14	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-29	OR-636-15	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-31	OR-636-COMP-06	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-32	OR-636-VOC-06	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-33	OR-636-16	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-34	OR-636-17	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-35	OR-636-18	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-37	OR-636-COMP-07	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO

Date/Time 05/08/25 15:00

Raw Sample Received by: JB WOC

Raw Sample Relinquished by: CP

Date/Time 05/08/25 17:30

Raw Sample Received by: CP

Raw Sample Relinquished by: JB WOC

WORKLIST(Hardcopy Internal Chain)

135705

WorkList Name : %1-050825 **WorkList ID :** 189376 **Department :** Wet-Chemistry **Date :** 05-08-2025 08:10:25

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1983-38	OR-636-VOC-07	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-39	OR-636-19	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-40	OR-636-20	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-41	OR-636-21	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-43	OR-636-COMP-08	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-44	OR-636-VOC-08	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-45	OR-636-22	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-46	OR-636-23	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-47	OR-636-24	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-49	OR-636-COMP-09	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-50	OR-636-VOC-09	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-51	OR-636-25	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-52	OR-636-26	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1983-53	OR-636-27	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/07/2025	Chemtech -SO
Q1984-01	OU4-PCS-TC-33-050725	Solid	Percent Solids	Cool 4 deg C	NOBI03	L41	05/07/2025	Chemtech -SO
Q1984-03	OU4-PCS-TC-34-050725	Solid	Percent Solids	Cool 4 deg C	NOBI03	L41	05/07/2025	Chemtech -SO
Q1984-05	OU4-PCS-TC-35-050725	Solid	Percent Solids	Cool 4 deg C	NOBI03	L41	05/07/2025	Chemtech -SO
Q1984-07	OU4-TS-24-050725	Solid	Percent Solids	Cool 4 deg C	NOBI03	L41	05/07/2025	Chemtech -SO
Q1984-09	OU4-TS-25-050725	Solid	Percent Solids	Cool 4 deg C	NOBI03	L41	05/07/2025	Chemtech -SO
Q1984-11	OU4-TS-26-050725	Solid	Percent Solids	Cool 4 deg C	NOBI03	L41	05/07/2025	Chemtech -SO
Q1984-13	OU4-TS-27-050725	Solid	Percent Solids	Cool 4 deg C	NOBI03	L41	05/07/2025	Chemtech -SO

Date/Time 05/08/25 15:00

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature]

Date/Time 05/08/25 17:30

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature]

WORKLIST(Hardcopy Internal Chain)

LB135705

WorkList Name : %1-050825 **WorkList ID :** 189376 **Department :** Wet-Chemistry **Date :** 05-08-2025 08:10:25

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1984-15	OU4-TS-28-050725	Solid	Percent Solids	Cool 4 deg C	NOBI03	L41	05/07/2025	Chemtech -SO
Q1986-01	COMP-8	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	05/08/2025	Chemtech -SO
Q1986-03	COMP-9	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	05/08/2025	Chemtech -SO
Q1986-05	COMP-10	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	05/08/2025	Chemtech -SO
Q1986-07	COMP-11	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	05/08/2025	Chemtech -SO
Q1986-09	COMP-218	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	05/08/2025	Chemtech -SO
Q1987-01	GC1	Solid	Percent Solids	Cool 4 deg C	GENV01	L41	05/07/2025	Chemtech -SO
Q1990-01	43025-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	05/08/2025	Chemtech -SO
Q1990-02	43025-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	05/08/2025	Chemtech -SO
Q1991-01	1217	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	05/08/2025	Chemtech -SO
Q1991-03	30425	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	05/08/2025	Chemtech -SO

Date/Time 05/08/25 15:00

Raw Sample Received by: LWOJ

Raw Sample Relinquished by:

Date/Time 05/08/25 17:30

Raw Sample Received by:

Raw Sample Relinquished by: LWOJ

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135733

Review By	MOHAN	Review On	5/13/2025 11:37:48 AM
Supervise By	jaswal	Supervise On	5/13/2025 11:15:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85626,MP85627,MP85628,MP85629,MP85630,MP85631
ICV Standard	MP85632
CCV Standard	MP85634
ICSA Standard	
CRI Standard	MP85636
LCS Standard	
Chk Standard	MP85633,MP85634,MP837,MP85646

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/12/25 09:36		MOHAN	OK
2	S0.2	S0.2	CAL2	05/12/25 09:38		MOHAN	OK
3	S2.5	S2.5	CAL3	05/12/25 09:40		MOHAN	OK
4	S5	S5	CAL4	05/12/25 09:45		MOHAN	OK
5	S7.5	S7.5	CAL5	05/12/25 09:47		MOHAN	OK
6	S10	S10	CAL6	05/12/25 09:53		MOHAN	OK
7	ICV05	ICV05	ICV	05/12/25 09:56		MOHAN	OK
8	ICB05	ICB05	ICB	05/12/25 09:58		MOHAN	OK
9	CCV07	CCV07	CCV	05/12/25 10:06		MOHAN	OK
10	CCB07	CCB07	CCB	05/12/25 10:08		MOHAN	OK
11	CRA	CRA	CRDL	05/12/25 10:11		MOHAN	OK
12	HighStd	HighStd	HIGH STD	05/12/25 10:13		MOHAN	OK
13	ChkStd	ChkStd	SAM	05/12/25 10:15		MOHAN	OK
14	PB167937BL	PB167937BL	MB	05/12/25 10:18		MOHAN	OK
15	PB167937BS	PB167937BS	LCS	05/12/25 10:22		MOHAN	OK
16	Q1982-01	TP-1	SAM	05/12/25 10:25		MOHAN	OK
17	Q1982-02	TP-2B	SAM	05/12/25 10:27		MOHAN	OK
18	Q1982-03	TP-3	SAM	05/12/25 10:29		MOHAN	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135733

Review By	MOHAN	Review On	5/13/2025 11:37:48 AM
Supervise By	jaswal	Supervise On	5/13/2025 11:15:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85626,MP85627,MP85628,MP85629,MP85630,MP85631
ICV Standard	MP85632
CCV Standard	MP85634
ICSA Standard	
CRI Standard	MP85636
LCS Standard	
Chk Standard	MP85633,MP85634,MP837,MP85646

19	Q1982-04	TP-4	SAM	05/12/25 10:32		MOHAN	OK
20	Q1982-05	TP-5	SAM	05/12/25 10:34		MOHAN	OK
21	CCV08	CCV08	CCV	05/12/25 10:36		MOHAN	OK
22	CCB08	CCB08	CCB	05/12/25 10:39		MOHAN	OK
23	Q1982-06	TP-6	SAM	05/12/25 10:41		MOHAN	OK
24	Q1982-07	TP-8	SAM	05/12/25 10:43		MOHAN	OK
25	Q1982-08	TP-9	SAM	05/12/25 10:45		MOHAN	OK
26	Q1983-01	OR-636-COMP-01	SAM	05/12/25 10:48		MOHAN	OK
27	Q1983-01DUP	OR-636-COMP-01DU	DUP	05/12/25 10:50		MOHAN	OK
28	Q1983-01MS	OR-636-COMP-01MS	MS	05/12/25 10:52		MOHAN	OK
29	Q1983-01MSD	OR-636-COMP-01MS	MSD	05/12/25 10:55		MOHAN	OK
30	Q1983-07	OR-636-COMP-02	SAM	05/12/25 10:57		MOHAN	OK
31	Q1983-13	OR-636-COMP-03	SAM	05/12/25 10:59		MOHAN	OK
32	Q1983-19	OR-636-COMP-04	SAM	05/12/25 11:01		MOHAN	OK
33	CCV09	CCV09	CCV	05/12/25 11:09		MOHAN	OK
34	CCB09	CCB09	CCB	05/12/25 11:11		MOHAN	OK
35	Q1983-25	OR-636-COMP-05	SAM	05/12/25 11:14		MOHAN	OK
36	Q1983-31	OR-636-COMP-06	SAM	05/12/25 11:16		MOHAN	OK
37	Q1983-37	OR-636-COMP-07	SAM	05/12/25 11:18		MOHAN	OK
38	Q1983-43	OR-636-COMP-08	SAM	05/12/25 11:20		MOHAN	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135733

Review By	MOHAN	Review On	5/13/2025 11:37:48 AM
Supervise By	jaswal	Supervise On	5/13/2025 11:15:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85626,MP85627,MP85628,MP85629,MP85630,MP85631
ICV Standard	MP85632
CCV Standard	MP85634
ICSA Standard	
CRI Standard	MP85636
LCS Standard	
Chk Standard	MP85633,MP85634,MP837,MP85646

39	Q1983-49	OR-636-COMP-09	SAM	05/12/25 11:23		MOHAN	OK
40	PB167938BL	PB167938BL	MB	05/12/25 11:25		MOHAN	OK
41	PB167938BS	PB167938BS	LCS	05/12/25 11:27		MOHAN	OK
42	Q1984-01	OU4-PCS-TC-33-050	SAM	05/12/25 11:30		MOHAN	OK
43	Q1984-03	OU4-PCS-TC-34-050	SAM	05/12/25 11:32		MOHAN	OK
44	Q1984-05	OU4-PCS-TC-35-050	SAM	05/12/25 11:34		MOHAN	OK
45	CCV10	CCV10	CCV	05/12/25 11:36		MOHAN	OK
46	CCB10	CCB10	CCB	05/12/25 11:39		MOHAN	OK
47	Q1984-07	OU4-TS-24-050725	SAM	05/12/25 11:41		MOHAN	OK
48	Q1984-09	OU4-TS-25-050725	SAM	05/12/25 11:43		MOHAN	OK
49	Q1984-11	OU4-TS-26-050725	SAM	05/12/25 11:46		MOHAN	OK
50	Q1984-13	OU4-TS-27-050725	SAM	05/12/25 11:48		MOHAN	OK
51	Q1984-15	OU4-TS-28-050725	SAM	05/12/25 11:50		MOHAN	OK
52	Q1986-01	COMP-8	SAM	05/12/25 11:56		MOHAN	OK
53	Q1986-03	COMP-9	SAM	05/12/25 12:00		MOHAN	OK
54	Q1986-05	COMP-10	SAM	05/12/25 12:02		MOHAN	OK
55	Q1986-07	COMP-11	SAM	05/12/25 12:05		MOHAN	OK
56	Q1986-09	VNJ-218	SAM	05/12/25 12:07		MOHAN	OK
57	CCV11	CCV11	CCV	05/12/25 12:42		MOHAN	OK
58	CCB11	CCB11	CCB	05/12/25 12:53		MOHAN	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135733

Review By	MOHAN	Review On	5/13/2025 11:37:48 AM
Supervise By	jaswal	Supervise On	5/13/2025 11:15:56 PM

STD. NAME	STD REF.#
ICAL Standard	MP85626,MP85627,MP85628,MP85629,MP85630,MP85631
ICV Standard	MP85632
CCV Standard	MP85634
ICSA Standard	
CRI Standard	MP85636
LCS Standard	
Chk Standard	MP85633,MP85634,MP837,MP85646

59	Q1986-09DUP	VNJ-218DUP	DUP	05/12/25 12:58		MOHAN	OK
60	Q1986-09MS	VNJ-218MS	MS	05/12/25 13:00		MOHAN	OK
61	Q1986-09MSD	VNJ-218MSD	MSD	05/12/25 13:03		MOHAN	OK
62	Q2002-01	EO-02-05092025	SAM	05/12/25 13:05		MOHAN	OK
63	Q1983-01L	OR-636-COMP-01L	SD	05/12/25 13:08		MOHAN	OK
64	Q1983-01A	OR-636-COMP-01A	PS	05/12/25 13:10		MOHAN	OK
65	Q1986-09L	VNJ-218L	SD	05/12/25 13:12		MOHAN	OK
66	Q1986-09A	VNJ-218A	PS	05/12/25 13:15		MOHAN	OK
67	CCV12	CCV12	CCV	05/12/25 13:17		MOHAN	OK
68	CCB12	CCB12	CCB	05/12/25 13:27		MOHAN	OK

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 # LB135756

Review By	Janvi	Review On	5/14/2025 12:25:32 PM
Supervise By	jaswal	Supervise On	5/14/2025 12:29:12 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/13/25 12:07		Kareem	OK
2	S1	S1	CAL2	05/13/25 12:11		Kareem	OK
3	S2	S2	CAL3	05/13/25 12:16		Kareem	OK
4	S3	S3	CAL4	05/13/25 12:20		Kareem	OK
5	S4	S4	CAL5	05/13/25 12:24		Kareem	OK
6	S5	S5	CAL6	05/13/25 12:28		Kareem	OK
7	ICV01	ICV01	ICV	05/13/25 12:33	Fai For 95-105(Ca,Co,fe,Mg,Mn,Ni, V)	Kareem	OK
8	LLICV01	LLICV01	LLICV	05/13/25 12:50		Kareem	OK
9	ICB01	ICB01	ICB	05/13/25 12:55		Kareem	OK
10	CRI01	CRI01	CRDL	05/13/25 13:00		Kareem	OK
11	ICSA01	ICSA01	ICSA	05/13/25 13:04		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	05/13/25 13:08		Kareem	OK
13	ICSADL	ICSADL	ICSA	05/13/25 13:12		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	05/13/25 13:17		Kareem	OK
15	CCV01	CCV01	CCV	05/13/25 13:21		Kareem	OK
16	CCB01	CCB01	CCB	05/13/25 13:26		Kareem	OK
17	PB167916BL	PB167916BL	MB	05/13/25 13:30		Kareem	OK
18	PB167916BS	PB167916BS	LCS	05/13/25 13:52		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135756

Review By	Janvi	Review On	5/14/2025 12:25:32 PM
Supervise By	jaswal	Supervise On	5/14/2025 12:29:12 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

19	PB167909BL	PB167909BL	MB	05/13/25 13:57	NOT USE	Kareem	Not Ok
20	PB167909BS	PB167909BS	LCS	05/13/25 14:01	NOT USE	Kareem	Not Ok
21	PB167934BL	PB167934BL	MB	05/13/25 14:06		Kareem	OK
22	PB167934BS	PB167934BS	LCS	05/13/25 14:11		Kareem	OK
23	PB167918BL	PB167918BL	MB	05/13/25 14:27		Kareem	OK
24	PB167918BS	PB167918BS	LCS	05/13/25 14:31		Kareem	OK
25	PB167930BL	PB167930BL	MB	05/13/25 14:35		Kareem	OK
26	CCV02	CCV02	CCV	05/13/25 14:52		Kareem	OK
27	CCB02	CCB02	CCB	05/13/25 14:56		Kareem	OK
28	PB167930BS	PB167930BS	LCS	05/13/25 15:00		Kareem	OK
29	Q1967-01DL	RECLAIM-TANKDL	SAM	05/13/25 15:04	5X For Zn	Kareem	Confirms
30	Q1967-02	BOOSTER-1	SAM	05/13/25 15:08		Kareem	OK
31	Q1967-03DL	ACID-PITDL	SAM	05/13/25 15:19	Zn High	Kareem	Dilution
32	Q1967-04	CHAMBER-WASHER	SAM	05/13/25 15:23		Kareem	OK
33	Q1967-03DL2	ACID-PITDL2	SAM	05/13/25 15:28	25X For Zn	Kareem	Confirms
34	Q1967-05DL	PORT-SAMPLEDL	SAM	05/13/25 15:44		Kareem	OK
35	Q1967-05DUPDL	PORT-SAMPLEDUPDL	DUP	05/13/25 15:49		Kareem	OK
36	Q1967-05LDL	PORT-SAMPLELDL	SD	05/13/25 15:53		Kareem	OK
37	Q1967-05MSDL	PORT-SAMPLEMSDL	MS	05/13/25 15:57		Kareem	OK
38	CCV03	CCV03	CCV	05/13/25 16:12		Kareem	OK

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Supervise By	jaswal	Supervise On	5/14/2025 12:29:12 PM

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ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

39	CCB03	CCB03	CCB	05/13/25 16:47		Kareem	OK
40	Q1967-05MSDDL	PORT-SAMPLEMSDL	MSD	05/13/25 16:51		Kareem	OK
41	Q1967-05ADL	PORT-SAMPLEADL	PS	05/13/25 16:56		Kareem	OK
42	PB167917TB	PB167917TB	MB	05/13/25 17:09		Kareem	OK
43	Q1983-06	OR-636-COMP-01	SAM	05/13/25 17:14		Kareem	OK
44	Q1983-12	OR-636-COMP-02	SAM	05/13/25 17:18		Kareem	OK
45	Q1983-18	OR-636-COMP-03	SAM	05/13/25 17:23		Kareem	OK
46	Q1983-24	OR-636-COMP-04	SAM	05/13/25 17:27		Kareem	OK
47	Q1983-30	OR-636-COMP-05	SAM	05/13/25 17:32		Kareem	OK
48	Q1983-36	OR-636-COMP-06	SAM	05/13/25 17:36		Kareem	OK
49	CCV04	CCV04	CCV	05/13/25 17:40		Kareem	OK
50	CCB04	CCB04	CCB	05/13/25 17:46		Kareem	OK
51	Q1983-42	OR-636-COMP-07	SAM	05/13/25 17:50		Kareem	OK
52	Q1983-48	OR-636-COMP-08	SAM	05/13/25 17:55		Kareem	OK
53	Q1983-54	OR-636-COMP-09	SAM	05/13/25 17:59		Kareem	OK
54	Q1986-02	COMP-8	SAM	05/13/25 18:04		Kareem	OK
55	Q1986-04	COMP-9	SAM	05/13/25 18:08		Kareem	OK
56	Q1986-06	COMP-10	SAM	05/13/25 18:12		Kareem	OK
57	Q1986-08	COMP-11	SAM	05/13/25 18:17		Kareem	OK
58	Q1986-10	VNJ-218	SAM	05/13/25 18:21		Kareem	OK

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ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

59	Q1986-10DUP	VNJ-218DUP	DUP	05/13/25 18:26		Kareem	OK
60	Q1986-10L	VNJ-218L	SD	05/13/25 18:30		Kareem	OK
61	CCV05	CCV05	CCV	05/13/25 18:35		Kareem	OK
62	CCB05	CCB05	CCB	05/13/25 18:39		Kareem	OK
63	Q1986-10MS	VNJ-218MS	MS	05/13/25 18:43		Kareem	OK
64	Q1986-10MSD	VNJ-218MSD	MSD	05/13/25 18:47		Kareem	OK
65	Q1986-10A	VNJ-218A	PS	05/13/25 18:51		Kareem	OK
66	Q1983-01	OR-636-COMP-01	SAM	05/13/25 18:56		Kareem	OK
67	Q1983-07	OR-636-COMP-02	SAM	05/13/25 19:00		Kareem	OK
68	Q1983-13	OR-636-COMP-03	SAM	05/13/25 19:04		Kareem	OK
69	Q1983-19	OR-636-COMP-04	SAM	05/13/25 19:08		Kareem	OK
70	Q1983-25	OR-636-COMP-05	SAM	05/13/25 19:12		Kareem	OK
71	Q1983-31	OR-636-COMP-06	SAM	05/13/25 19:16		Kareem	OK
72	CCV06	CCV06	CCV	05/13/25 19:20		Kareem	OK
73	CCB06	CCB06	CCB	05/13/25 19:25		Kareem	OK
74	Q1983-37	OR-636-COMP-07	SAM	05/13/25 19:29		Kareem	OK
75	Q1983-43	OR-636-COMP-08	SAM	05/13/25 19:33		Kareem	OK
76	Q1983-49	OR-636-COMP-09	SAM	05/13/25 19:37		Kareem	OK
77	Q1983-49DUP	OR-636-COMP-09DU	DUP	05/13/25 19:41		Kareem	OK
78	Q1983-49L	OR-636-COMP-09L	SD	05/13/25 19:45		Kareem	OK

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ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

79	Q1983-49MS	OR-636-COMP-09MS	MS	05/13/25 19:50		Kareem	OK
80	Q1983-49MSD	OR-636-COMP-09MS	MSD	05/13/25 19:54		Kareem	OK
81	Q1983-49A	OR-636-COMP-09A	PS	05/13/25 19:58		Kareem	OK
82	Q1986-01	COMP-8	SAM	05/13/25 20:02		Kareem	OK
83	CCV07	CCV07	CCV	05/13/25 20:06		Kareem	OK
84	CCB07	CCB07	CCB	05/13/25 20:10		Kareem	OK
85	Q1986-03	COMP-9	SAM	05/13/25 20:14		Kareem	OK
86	Q1986-05	COMP-10	SAM	05/13/25 20:19		Kareem	OK
87	Q1986-07	COMP-11	SAM	05/13/25 20:23		Kareem	OK
88	Q1986-09	VNJ-218	SAM	05/13/25 20:27		Kareem	OK
89	Q1982-01	TP-1	SAM	05/13/25 20:31		Kareem	OK
90	Q1982-02	TP-2B	SAM	05/13/25 20:35		Kareem	OK
91	Q1982-03	TP-3	SAM	05/13/25 20:39		Kareem	OK
92	Q1982-03DUP	TP-3DUP	DUP	05/13/25 20:43		Kareem	OK
93	Q1982-03L	TP-3L	SD	05/13/25 20:48		Kareem	OK
94	CCV08	CCV08	CCV	05/13/25 20:52		Kareem	OK
95	CCB08	CCB08	CCB	05/13/25 20:56		Kareem	OK
96	Q1982-03MS	TP-3MS	MS	05/13/25 21:00		Kareem	OK
97	Q1982-03MSD	TP-3MSD	MSD	05/13/25 21:04		Kareem	OK
98	Q1982-03A	TP-3A	PS	05/13/25 21:08		Kareem	OK

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ICAL Standard	MP85545,MP85546,MP85547,MP85548,MP85549,MP85552
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

99	Q1982-04	TP-4	SAM	05/13/25 21:12		Kareem	OK
100	Q1982-05	TP-5	SAM	05/13/25 21:17		Kareem	OK
101	Q1982-06	TP-6	SAM	05/13/25 21:21		Kareem	OK
102	Q1982-07	TP-8	SAM	05/13/25 21:25		Kareem	OK
103	Q1982-08	TP-9	SAM	05/13/25 21:29		Kareem	OK
104	PB167894TB	PB167894TB	MB	05/13/25 21:33		Kareem	OK
105	CCV09	CCV09	CCV	05/13/25 21:38		Kareem	OK
106	CCB09	CCB09	CCB	05/13/25 21:42		Kareem	OK
107	Q1968-08	MH-M	SAM	05/13/25 21:46	NOT USE	Kareem	Not Ok
108	Q1974-02	OILY-DEBRIS-COMP	SAM	05/13/25 21:51		Kareem	OK
109	Q1974-04	OILY-PADS	SAM	05/13/25 21:55		Kareem	OK
110	Q1974-04DUP	OILY-PADSDUP	DUP	05/13/25 22:00		Kareem	OK
111	Q1974-04L	OILY-PADSL	SD	05/13/25 22:04		Kareem	OK
112	Q1974-04MS	OILY-PADSMS	MS	05/13/25 22:08		Kareem	OK
113	Q1974-04MSD	OILY-PADSMSD	MSD	05/13/25 22:12		Kareem	OK
114	Q1974-04A	OILY-PADSA	PS	05/13/25 22:17		Kareem	OK
115	Q2002-01	EO-02-05092025	SAM	05/13/25 22:21		Kareem	OK
116	CCV10	CCV10	CCV	05/13/25 22:25		Kareem	OK
117	CCB10	CCB10	CCB	05/13/25 22:29		Kareem	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q1982

Test : Mercury,Metals ICP-TAL

Prepbatch ID : PB167930,PB167937,

Sequence ID/Qc Batch ID: LB135733,LB135756,

Standard ID :

MP837,MP84041,MP85241,MP85243,MP85545,MP85546,MP85547,MP85548,MP85549,MP85551,MP85552,MP85553,MP85554,MP85555,MP85556,MP85557,MP85558,MP85625,MP85626,MP85627,MP85628,MP85629,MP85630,MP85631,MP85632,MP85633,MP85634,MP85636,MP85638,MP85646,

Chemical ID :

M4251,M4583,M4916,M5062,M5429,M5466,M5467,M5470,M5471,M5581,M5658,M5747,M5748,M5751,M5798,M5799,M5800,M5801,M5811,M5814,M5815,M5816,M5817,M5820,M5875,M5882,M5884,M5942,M5959,M5962,M5970,M5985,M5997,M6005,M6016,M6021,M6023,M6028,M6030,M6032,M6058,M6076,M6077,M6125,M6126,M6127,M6128,M6137,M6138,M6142,M6144,M6145,M6146,M6150,M6151,M6152,M6155,M6158,M6159,M6161,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP84041	01/14/2025	07/14/2025	Eman Mughal	None	None	Sarabjit Jaswal 01/16/2025

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
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP85241	04/16/2025	10/16/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/29/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = 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
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP85243	04/16/2025	06/25/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/29/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M4251 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP85545	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M6158 = 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
907	ICP AES STD S (S5)	MP85546	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 5.00000ml of M5466 + 5.00000ml of M5471 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5875 + 5.00000ml of M5970 + 5.00000ml of M5997 + 5.00000ml of M6076 + 5.00000ml of M6146 + 455.00000ml of MP85545 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP85547	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 50.00000ml of MP85545 + 50.00000ml of MP85546 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP85548	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 25.00000ml of MP85546 + 75.00000ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP85549	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 16.00000ml of MP85546 + 184.00000ml of MP85545 = Final Quantity: 200.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP85551	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_2 (M SC-2)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M6137 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.05000ml of M6159 + 0.06000ml of M5747 + 0.10000ml of M5471 + 0.10000ml of M5751 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6145 + 0.25000ml of M5466 + 0.25000ml of M6146 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M5942 + 1.00000ml of M6127 + 1.00000ml of M6138 + 1.00000ml of M6142 + 1.00000ml of M6144 + 2.00000ml of M5816 + 89.29000ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2951	ICP AES S1/CRI WORK STD	MP85552	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 2.00000ml of MP85551 + 98.00000ml of MP85545 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
912	ICP AES ICV SOLN	MP85553	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 0.02500ml of M5429 + 0.02500ml of M5815 + 0.02500ml of M5817 + 0.10000ml of M5467 + 0.25000ml of M5470 + 0.25000ml of M6058 + 10.00000ml of M6150 + 89.32500ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP85554	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 25.00000ml of M6152 + 225.00000ml of MP85545 = 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
3494	ICP AES ICSAB SOLN-1	MP85555	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 0.01000ml of M5815 + 0.01000ml of M5817 + 0.10000ml of M5470 + 0.10000ml of M5970 + 0.10000ml of M6077 + 10.00000ml of M6152 + 10.00000ml of M6155 + 79.68000ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP85556	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 50.00000ml of MP85545 + 50.00000ml of MP85546 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP85557	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6158 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP85558	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 200.00000ml of M6158 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP85625	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 1.00000ml of M6158 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP85626	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = 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
1341	Hg 0.2 PPB STD	MP85627	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85625 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP85628	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 2.50000ml of M6158 + 245.00000ml of W3112 + 2.50000ml of MP85625 = 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
1343	Hg 5.0 PPB STD	MP85629	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 2.50000ml of M6158 + 242.50000ml of W3112 + 5.00000ml of MP85625 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP85630	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 2.50000ml of M6158 + 240.00000ml of W3112 + 7.50000ml of MP85625 = 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
1345	Hg 10.0 PPB STD	MP85631	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 2.50000ml of M6158 + 237.50000ml of W3112 + 10.00000ml of MP85625 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP85632	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 2.50000ml of M6158 + 2.50000ml of M6161 + 245.00000ml of W3112 = 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
1351	ICB (Hg 0.00 PPB SOLUTION)	MP85633	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP85634	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6158 + 10.00000ml of MP85625 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP85636	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85625 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
887	AQUA REGIA FOR HG ON 7471A	MP85638	05/09/2025	05/10/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/09/2025

FROM 150.00000ml of M6151 + 50.00000ml of M6158 = Final Quantity: 200.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP85646	05/12/2025	05/13/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 05/13/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6151 = Final Quantity: 500.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	12/19/2018 / mohan	12/05/2018 / mohan	M4251

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Labpure	0919120 / Boiling Stones	26275770	07/07/2025	07/03/2020 / mohan	05/07/2020 / mohan	M4583

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

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.	57058 / Cerium, 1000PPM, 100ML	061322	06/13/2025	03/06/2023 / bin	03/01/2023 / bin	M5466

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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.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

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	04/14/2025 / jaswal	03/16/2023 / jaswal	M5470

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	04/14/2025 / jaswal	03/16/2023 / jaswal	M5471

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	26397-103 / PTFE BOILING STONES	W126678	03/20/2026	03/20/2025 /	06/12/2023 / jaswal	M5581

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.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

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	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

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

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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	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

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.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

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CHEMICAL RECEIPT LOG BOOK

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 #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

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.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

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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	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-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	12/21/2027	02/03/2025 / JANVI	02/22/2024 / kareem	M5997

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	T2-MEB723367	08/30/2026	04/15/2025 / JANVI	05/14/2024 / Jaswal	M6005

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	U2-MEB731108	10/30/2025	04/30/2025 / mohan	05/14/2024 / Jaswal	M6016

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

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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.	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

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	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	01/01/2026	01/01/2025 / kareem	09/19/2024 / kareem	M6076

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	09/06/2029	01/23/2025 / kareem	09/19/2024 / kareem	M6077

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 #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

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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	121824	12/18/2027	04/17/2025 / Janvi	01/13/2025 / Jaswal	M6138

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

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	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

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	121724	12/17/2027	02/04/2025 /	01/13/2025 / Jaswal	M6145

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	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV1-1014	07/07/2025	02/07/2025 / JANVI	04/20/2021 / JANVI	M6150

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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)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

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	08/24/2025	02/24/2025 / kareem	04/20/2021 / kareem	M6152

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	06/20/2025	02/10/2025 / kareem	02/09/2024 / kareem	M6155

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	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

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	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV 5 0415	07/31/2025	05/01/2025 / mohan	03/30/2024 / mohan	M6161

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Certificate of Analysis

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

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

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

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

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

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

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

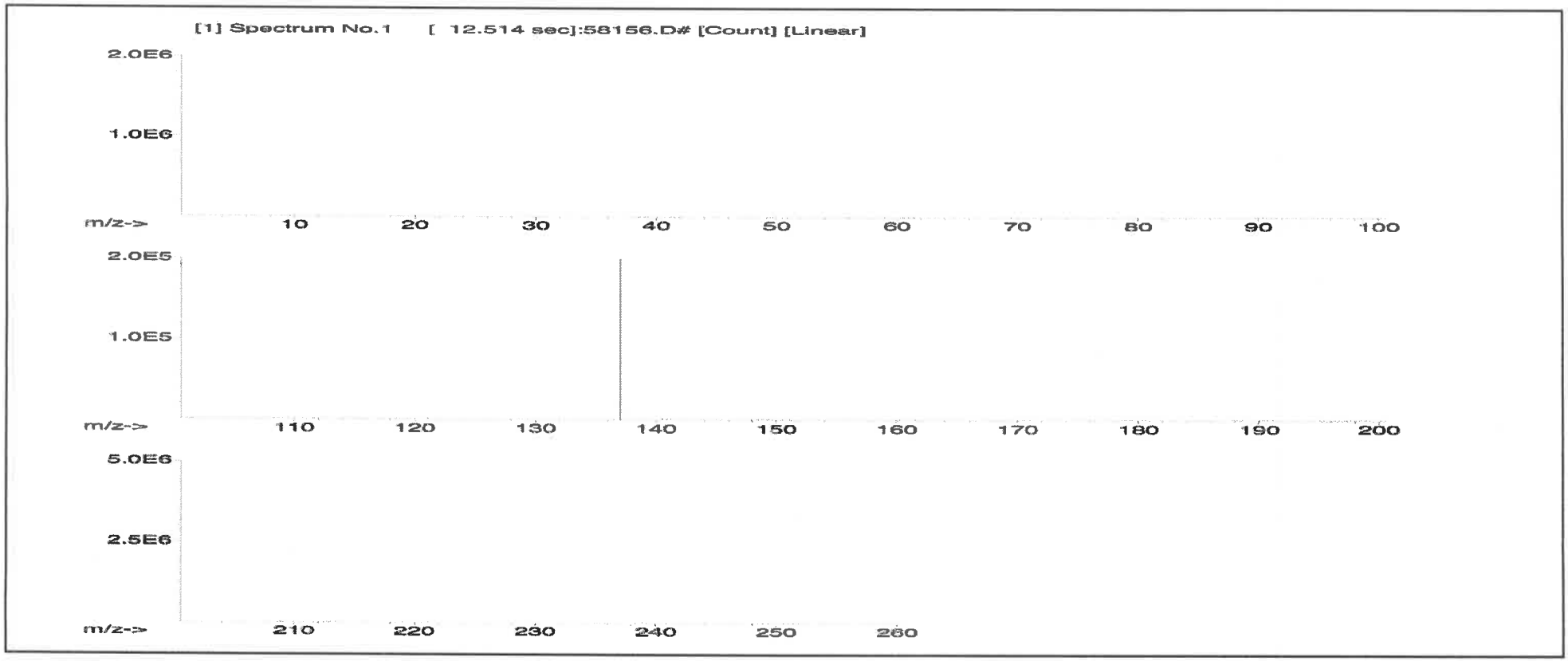
CERTIFIED WEIGHT REPORT:

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.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R 8/5/24

M6028

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

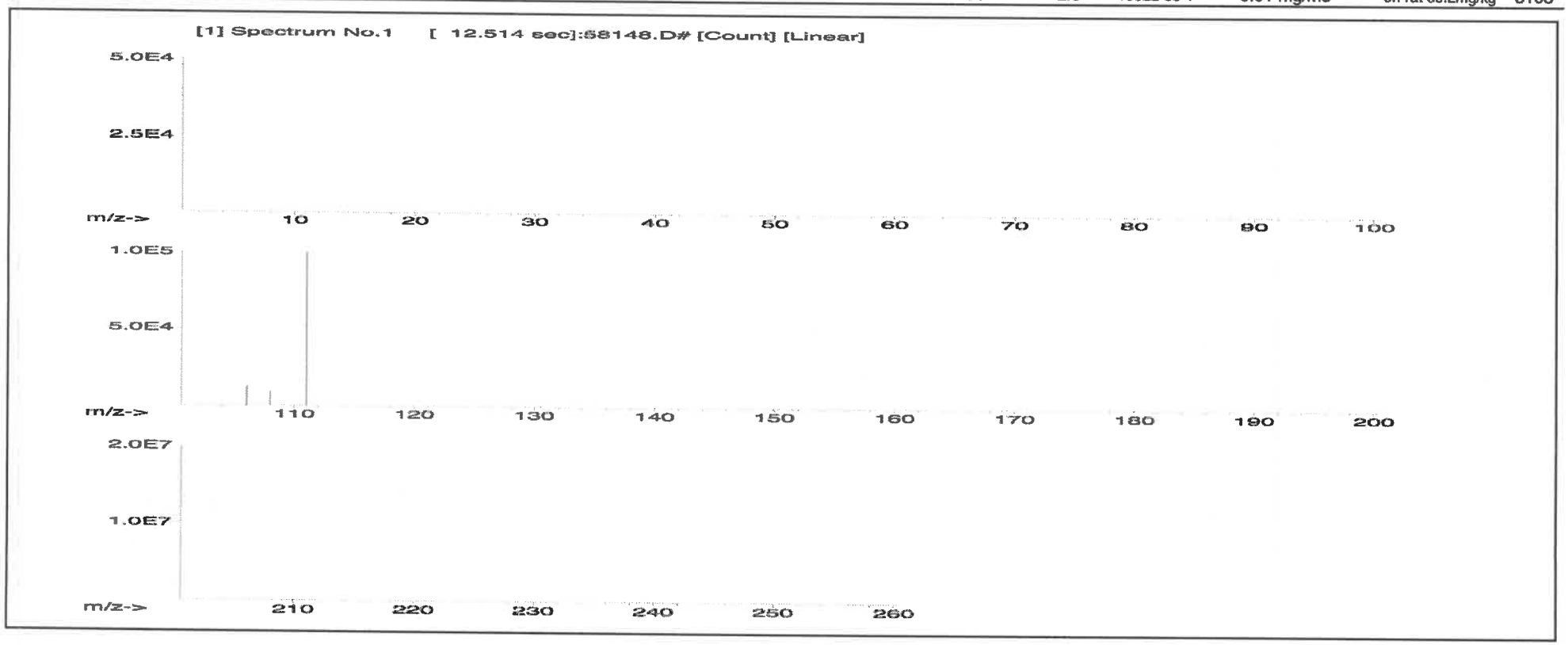
CERTIFIED WEIGHT REPORT:

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).

INORGANIC VENTURES™
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-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

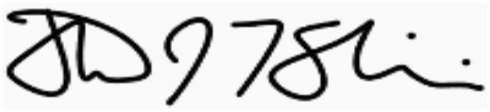
- Sealed TCT Bag Open Date: _____

- 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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R : 01/03/24. M5810, M5811

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 051523
Description: Iron (Fe)

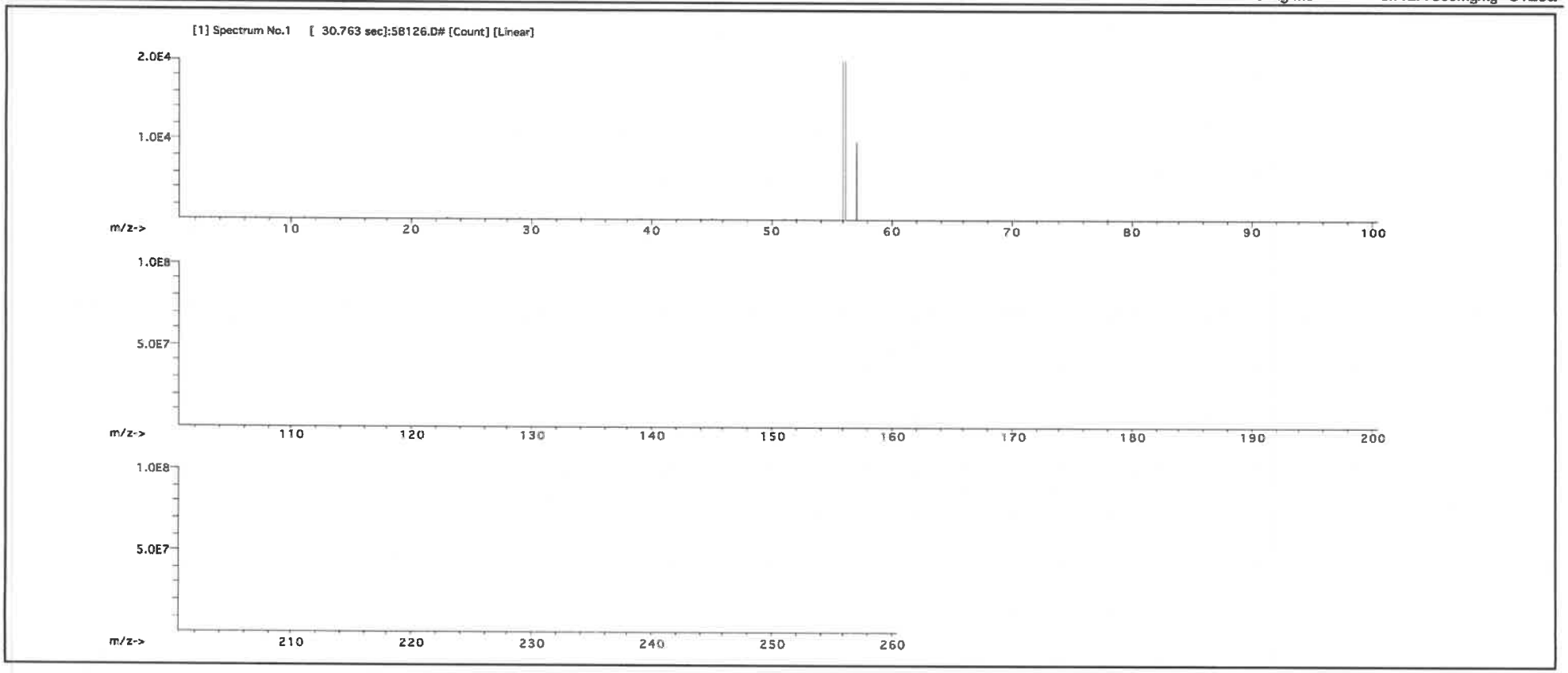
Expiration Date: 051526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 5000.1 ± 0.12 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
	5.0%	250.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	051523
Reviewed By:	Pedro L. Rentas	051523

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	2302010-500	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	<0.10
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).

INORGANIC VENTURES™

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

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:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO3

Value / Analyte(s):	1 000 µg/mL ea: Potassium,	
	600 µg/mL ea: Phosphorus,	
	300 µg/mL ea: Sodium,	Iron,
	200 µg/mL ea: Magnesium, Cerium, Thallium,	Aluminum, Selenium,
	100 µg/mL ea: Lead,	Calcium,
	80 µg/mL ea: Arsenic,	
	70 µg/mL ea: Mercury,	
	50 µg/mL ea: Nickel,	
	40 µg/mL ea: Chromium,	
	30 µg/mL ea: Copper, Vanadium,	Boron,
	20 µg/mL ea: Zinc, Barium, Cadmium, Manganese,	Strontium, Beryllium, Cobalt, Lithium,
	7.5 µg/mL ea: Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 0.7 µg/mL	Arsenic, As	80.0 ± 0.7 µg/mL
Barium, Ba	20.00 ± 0.09 µg/mL	Beryllium, Be	20.00 ± 0.13 µg/mL
Boron, B	30.00 ± 0.18 µg/mL	Cadmium, Cd	20.00 ± 0.09 µg/mL
Calcium, Ca	100.0 ± 0.4 µg/mL	Cerium, Ce	200.0 ± 0.8 µg/mL
Chromium, Cr	40.00 ± 0.30 µg/mL	Cobalt, Co	20.00 ± 0.10 µg/mL
Copper, Cu	30.00 ± 0.13 µg/mL	Iron, Fe	300.0 ± 1.3 µg/mL
Lead, Pb	100.0 ± 0.4 µg/mL	Lithium, Li	20.00 ± 0.08 µg/mL
Magnesium, Mg	200.0 ± 0.8 µg/mL	Manganese, Mn	20.00 ± 0.08 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.00 ± 0.22 µg/mL
Phosphorus, P	600.0 ± 2.7 µg/mL	Potassium, K	1 000 ± 4 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	7.50 ± 0.03 µg/mL
Sodium, Na	300.0 ± 1.4 µg/mL	Strontium, Sr	20.01 ± 0.08 µg/mL
Thallium, Tl	200.0 ± 1.4 µg/mL	Vanadium, V	30.00 ± 0.13 µg/mL
Zinc, Zn	20.00 ± 0.09 µg/mL		

Density: 1.034 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
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Ce	ICP Assay	3110	090504
Ce	EDTA	928	928
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
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	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	Traceable to 3152A	S2-NA700842
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
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**

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

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

August 30, 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

- **August 30, 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:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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RD:05/14/2024

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-2
Lot Number:	U2-MEB731108
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	200 µg/mL ea: Silica, 80 µg/mL ea: Antimony, 70 µg/mL ea: Tin, 40 µg/mL ea: Molybdenum, 20 µg/mL ea: Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.6 µg/mL	Molybdenum, Mo	40.03 ± 0.18 µg/mL
Silica, SiO2	200.2 ± 1.3 µg/mL	Tin, Sn	70.0 ± 0.4 µg/mL
Titanium, Ti	20.01 ± 0.13 µg/mL		

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
SiO2	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	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 (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

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**

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 17, 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 17, 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



Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

M4251
JB

J.T.Baker® | avantor™

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

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

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

James Ethier
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

M45 P3
Expd Dt. 5 7 24
MB

SAINT-GOBAIN

Manufacturer:
Saint-Gobain Performance Plastics
11 Sicho Drive
Poestenkill, NY 12140

Certificate of Conformance

Part Number/ Revision:	D1069103 0	**Customer Part Number/ Revision:**	1069103 N/A
Description:	*PTFE BOILING STONES-450 GRAMS		
Lot Number:	26275770	**Lot Quantity:**	10 EA
Date of Manufacture (MM/DD/YY)	03/23/20	**Expiration Date: (MM/DD/YY)**	N/A
Post Processing Run Number: (Refer to the attached Certificate for Additional Detail)		N/A	

We certify the material listed above confirms in full with the following specifications:

All items have been manufactured, inspected, tested, and accepted in accordance with our Quality Management system, ISO 9001-2015. Documentation substantiating this certification is kept on record per the Company's retention policy and is available for review.
All materials and processes used in manufacturing conform to the materials and/or manufacturing specifications and notes indicated on the purchase order, drawing, specifications, quality assurance requirements, or other applicable documents effective on the date of manufacture.
Saint-Gobain does not warrant the product for any particular application and it is the responsibility of the user to conduct tests that are deemed necessary to determine the suitability of the product for any particular use. Saint-Gobain's sole responsibility shall be for failure to manufacture the product in accordance with specifications and requirements of the buyer, and from defects in material and workmanship. This warranty is expressly made in lieu of any and all other warranties and Saint-Gobain's sole liability shall be to replace any product not in conformance with the specification and requirements of the buyer.

Quality Approval:	Jonathan Kimble	**Date:**	05/13/20

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

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

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

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

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

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

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inorganicventures.com

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M5062
M5063
M3

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 Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	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)

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.

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

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 - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO_3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO_3 / LDPE container, stable in 10% HNO_3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO_3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO_3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxide (Soluble in HNO_3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

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 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

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

September 22, 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

- September 22, 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 Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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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)

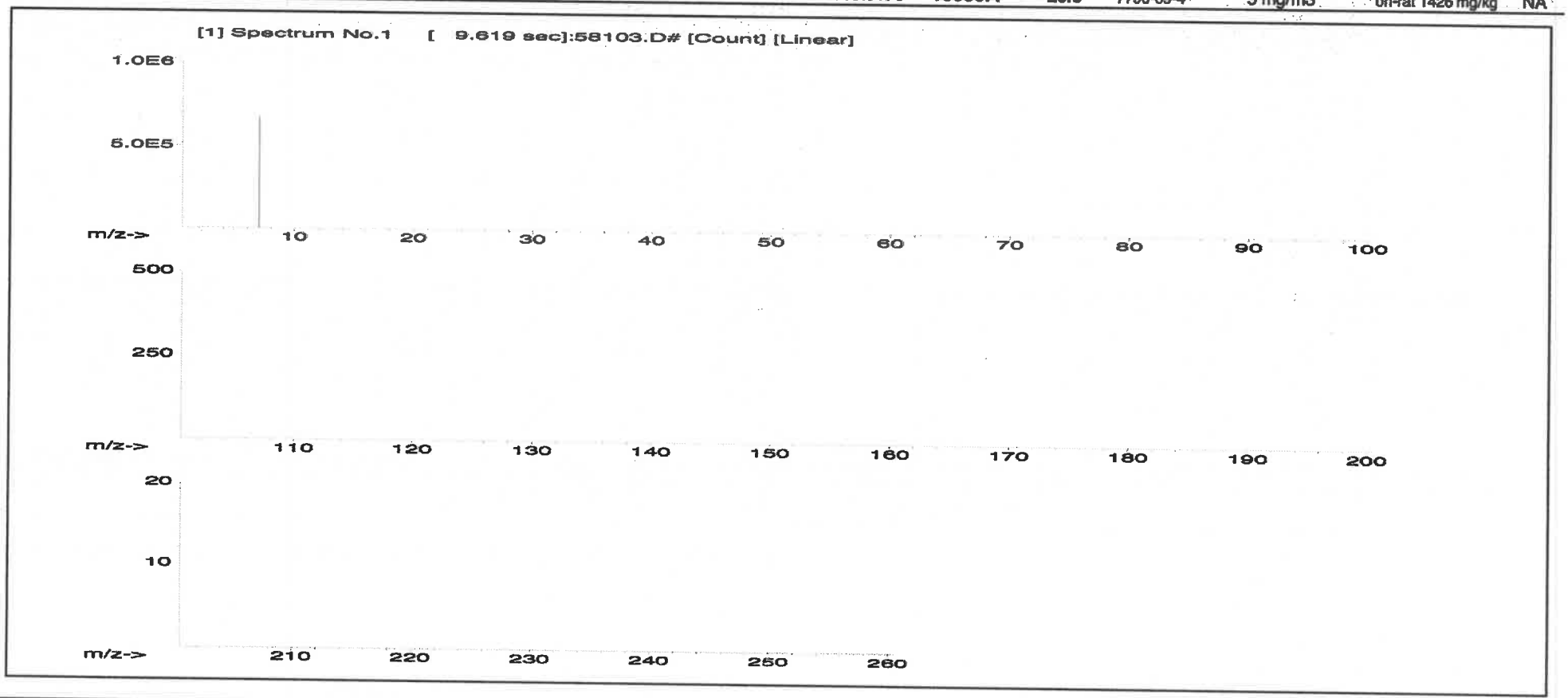
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	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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www.absolutestandards.com

IN 5466
R: 03/01/23 BH

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

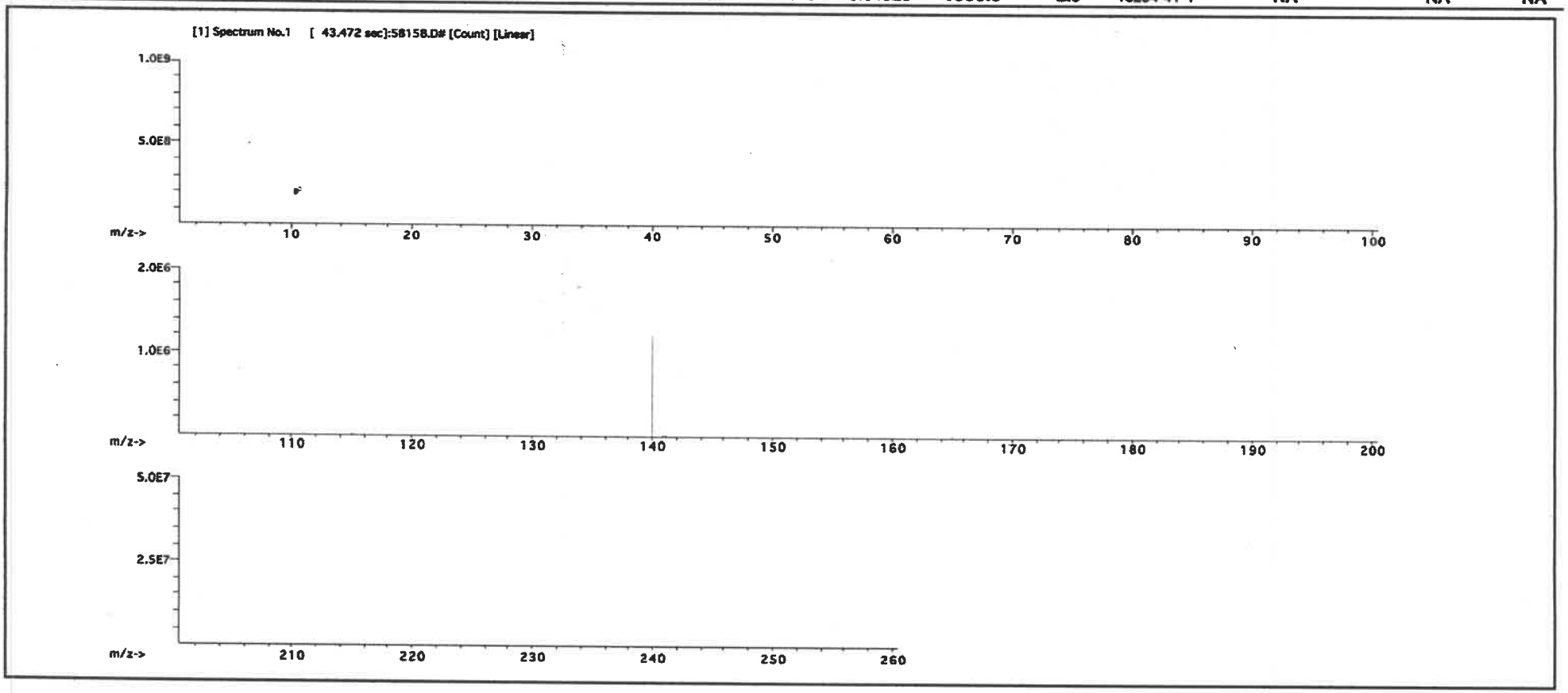
Part Number: 57058
Lot Number: 061322
Description: Cerium (Ce)

Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12 5E-05 Balance Uncertainty 0.058 Flask Uncertainty

	Lot #	
Solvent:	20510011	Nitric Acid
2%	20.0 (mL)	Nitric Acid

Formulated By:	Lawrence Barry	061322
Reviewed By:	Pedro L. Rentas	061322

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. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04923	1000.0	2.0	10294-41-4	NA	NA	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	<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	T	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

M5467 R: 03/01/23 (LA)

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

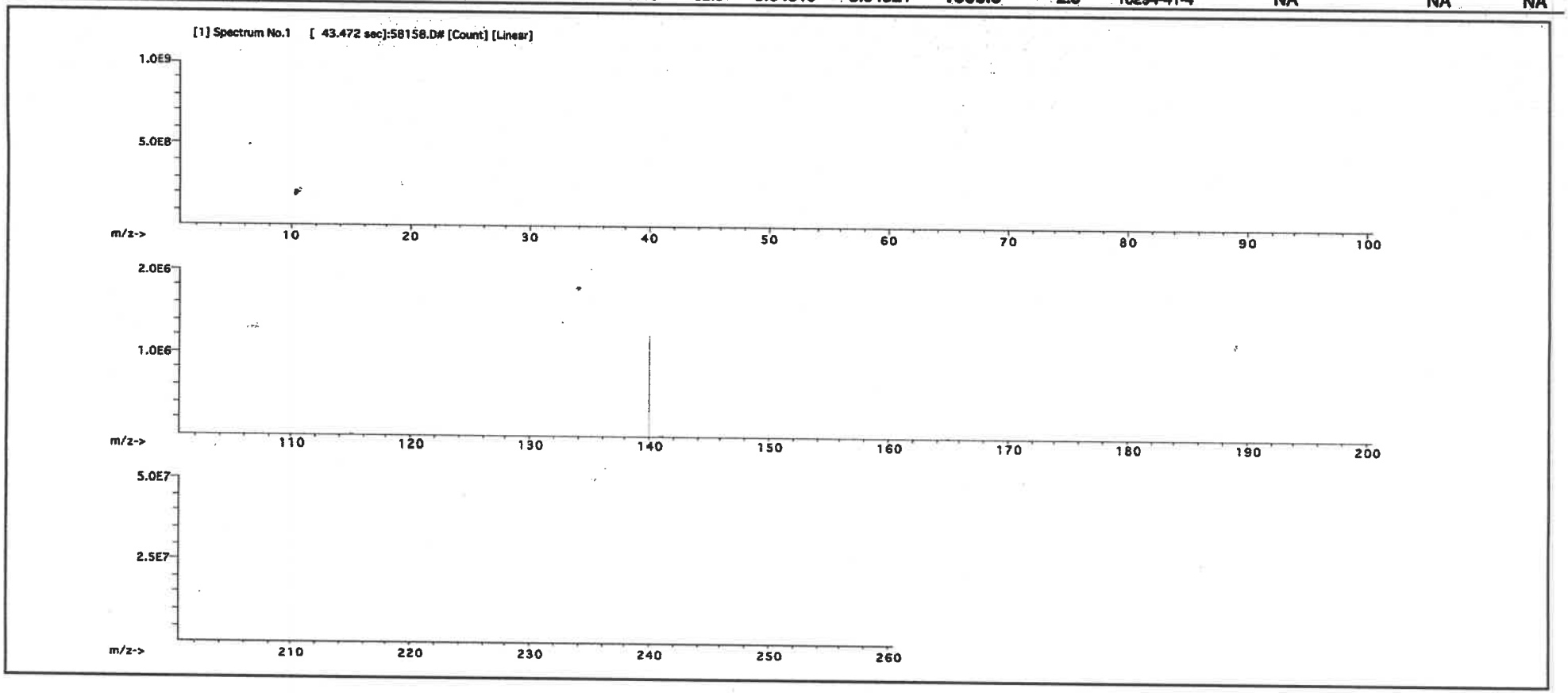
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

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. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	**1000.0**	**2.0**	10294-41-4	NA	NA	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	<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	T	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).

RD: 06/12/2023, M5581, M5582, M5583, M5584, M5585

JENSEN INERT PRODUCTS

MATERIAL CERTIFICATE OF COMPLIANCE

DATE: JUNE 12, 2023

CUSTOMER:	PCI SCIENTIFIC SUPPLY, INC
PURCHASE ORDER NO.	6054931
CATALOG NO.	BOI5021-450L
PRODUCT DESCRIPTION:	BOILING STONES, TFE, 454GMS
QUANTITY:	10 EACH
LOT NO.	W126678
SPECIFICATION (S):	Made from Virgin PTFE Resin

We certify that we have complied with the terms and conditions of the above Purchase Order and the Part Specifications in the manufacturing of the above product.

Laura Valencia

Laura Valencia
Quality Assurance Inspector

F:U:J:CF:PCISCI:COC-68118-BOI5021-061223

3773 NW 126th Avenue • Coral Springs, Florida 33065 • Fax (954) 344-2008 • 1-800 446-3781
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Certified Reference Material CRM

M5658 R ! 8/25/23

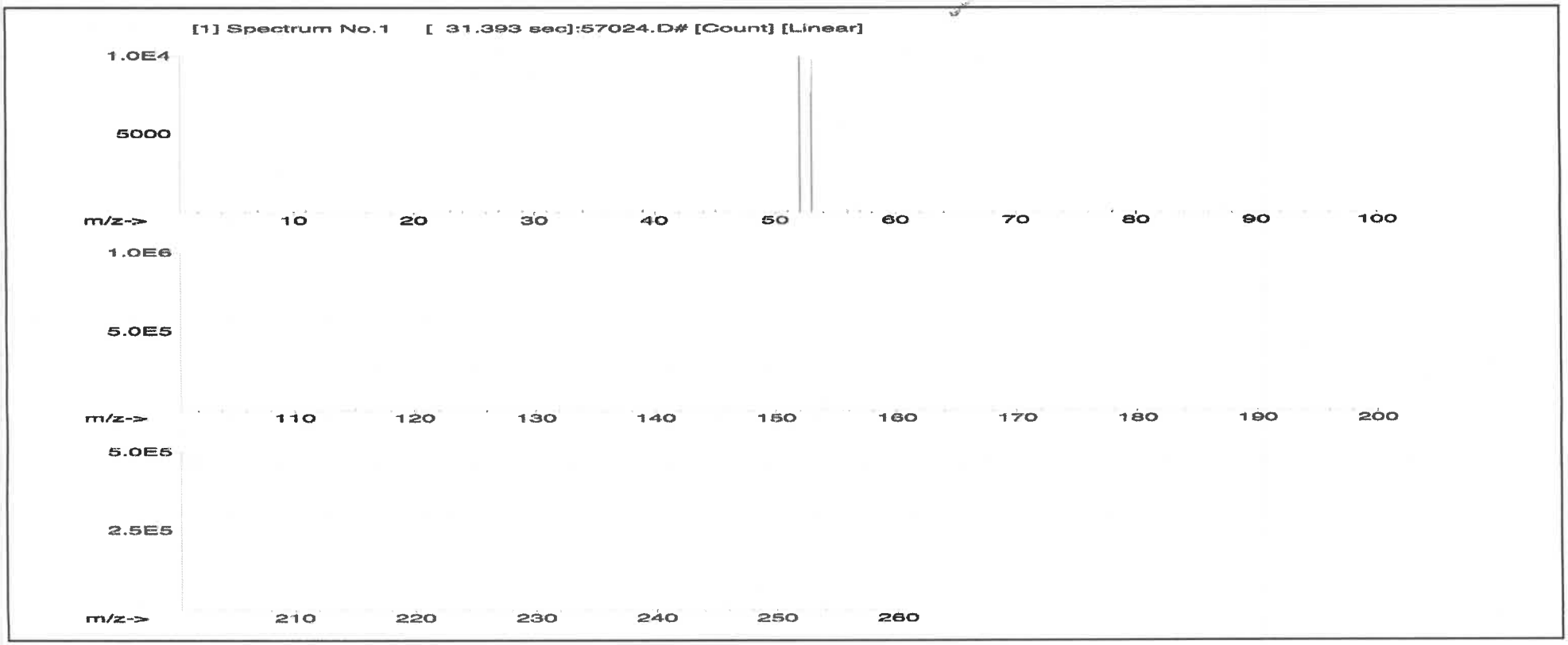
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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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R: 12/20/23 M5747

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CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

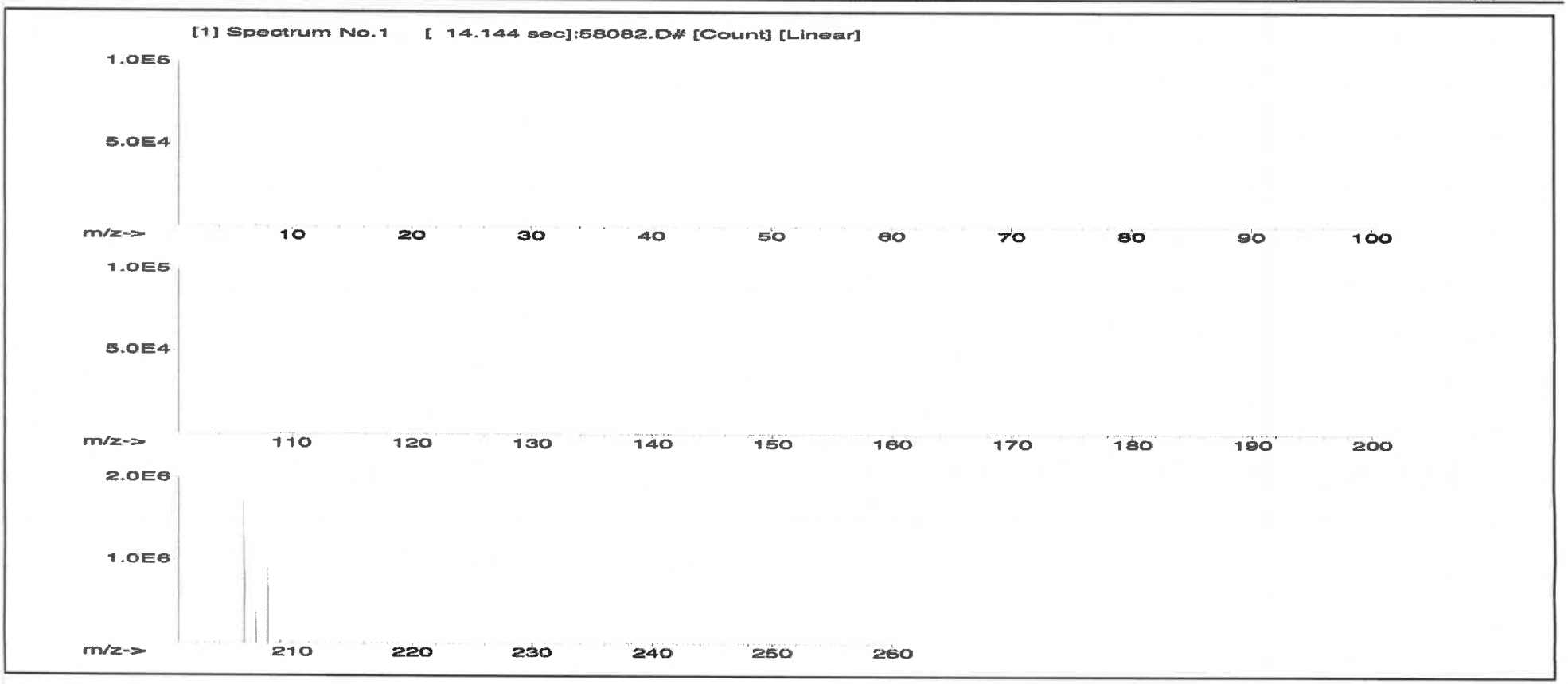
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	100923
Reviewed By:	Pedro L. Rentas	100923

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	1000	99.999	0.10	62.5	4.80071	4.80077	**1000.0**	**2.0**	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.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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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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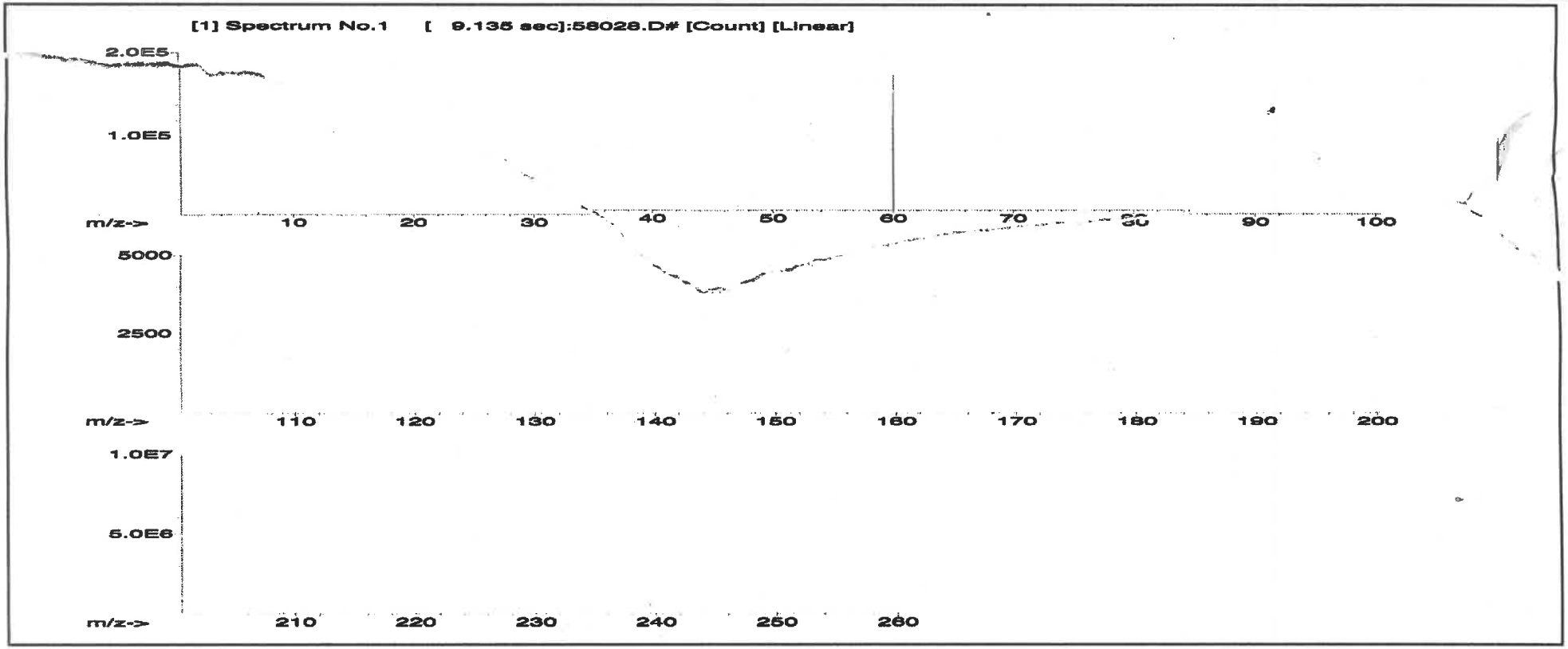
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**091223**			
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	091226			
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	091223
Reviewed By:	Pedro L. Rentas	091223

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. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	**2.2**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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	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.

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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: 8/25/23 M5751

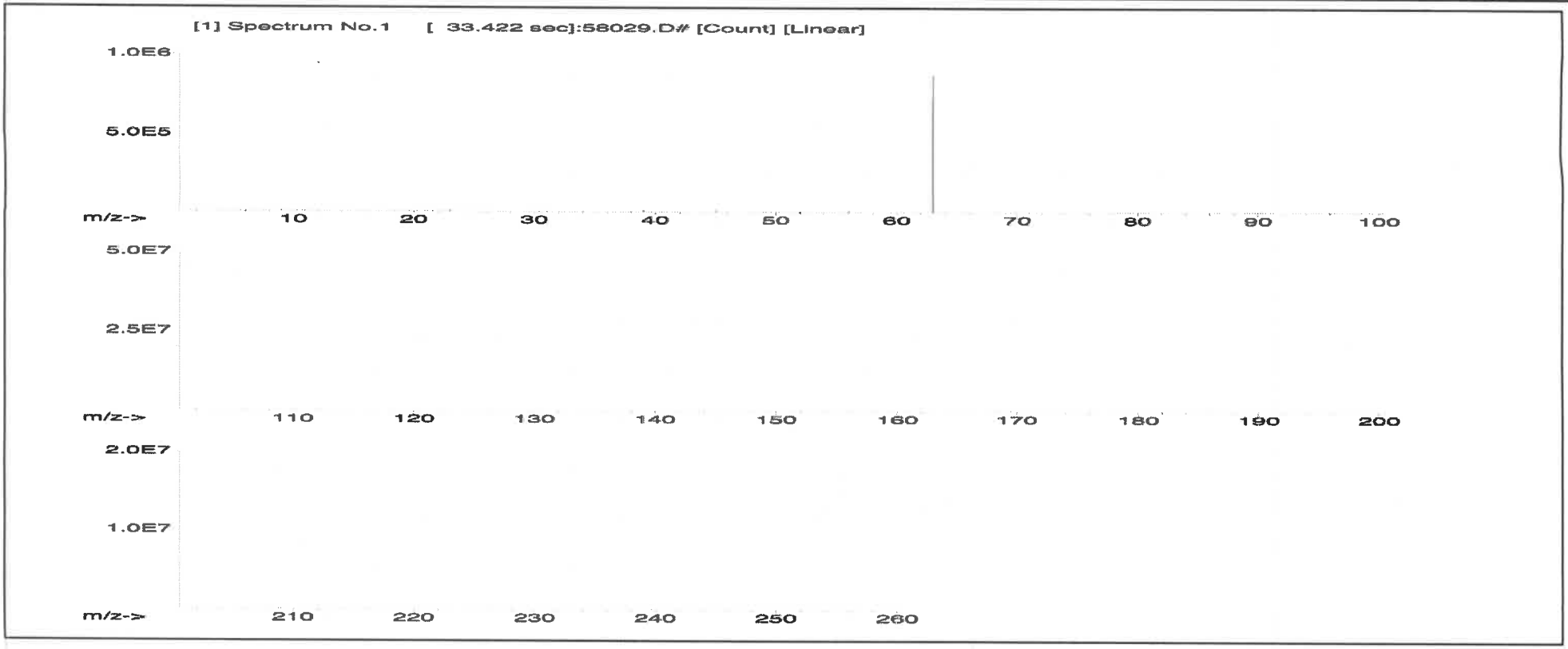
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	21110221	Nitric Acid	
Lot Number:	**071723**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726			
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	071723
Reviewed By:	Pedro L. Rentas	071723

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	022723	0.1000	200.0	0.084	1000	10000.5	**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:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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R: 02/09/24 M5798

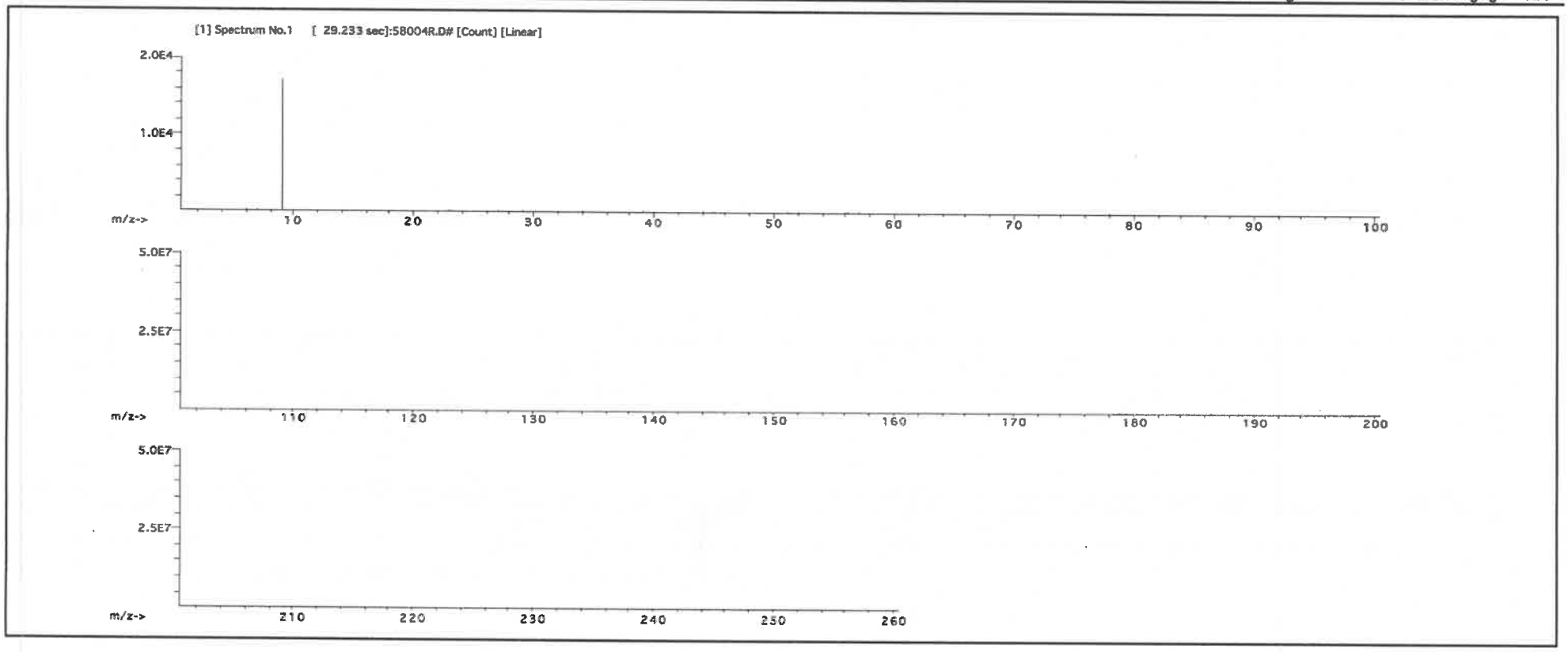
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CERTIFIED WEIGHT REPORT:

		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.

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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:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

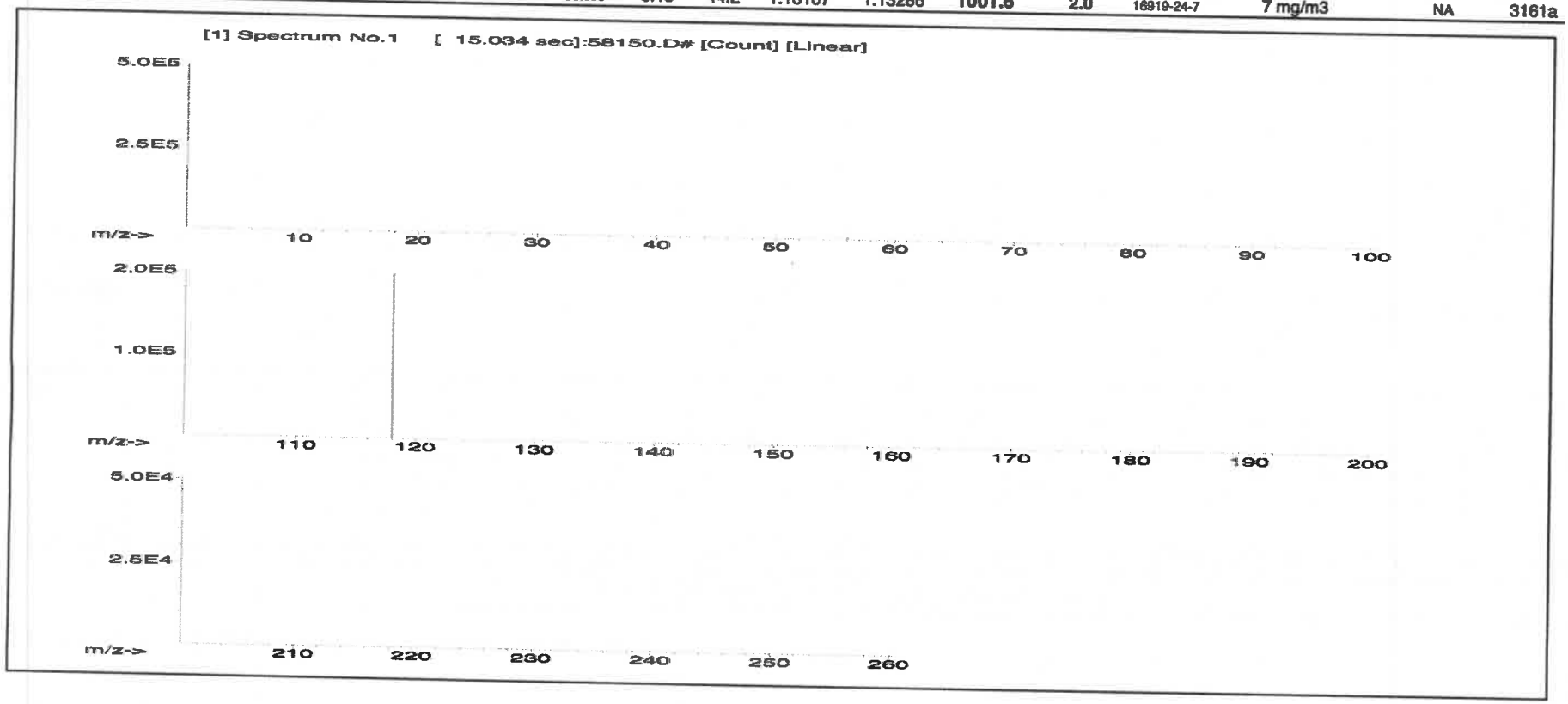
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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:

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R: 02/09/24 IM5800 BH

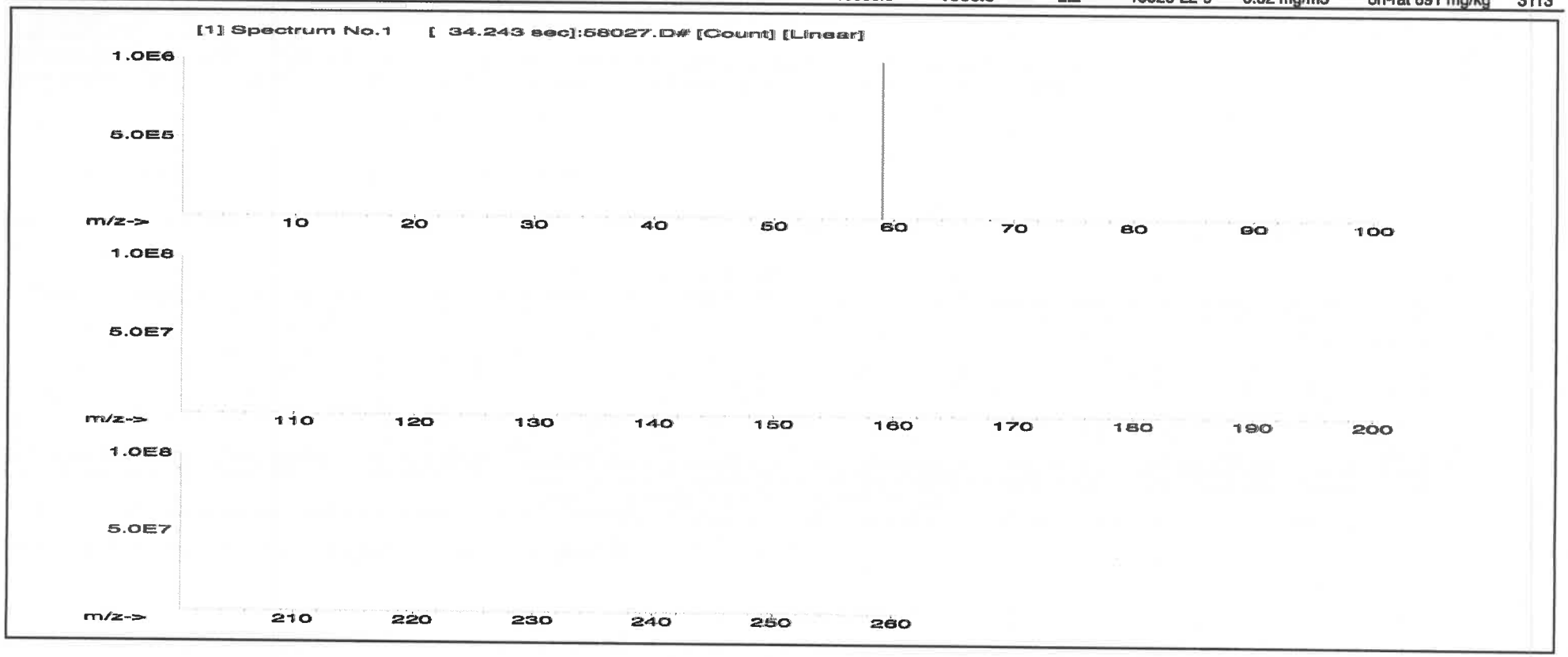
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CERTIFIED WEIGHT REPORT:

		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.

* 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.
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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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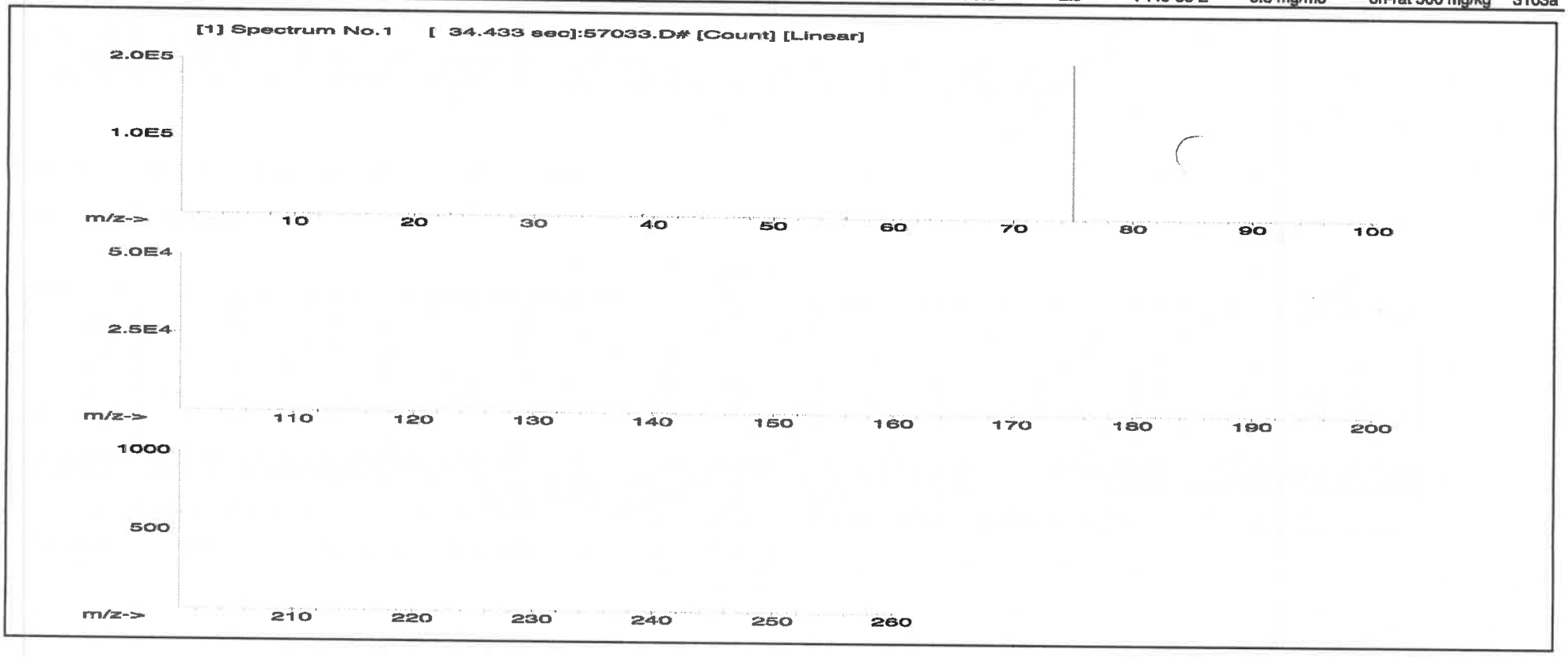
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CERTIFIED **WEIGHT** REPORT:

		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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* 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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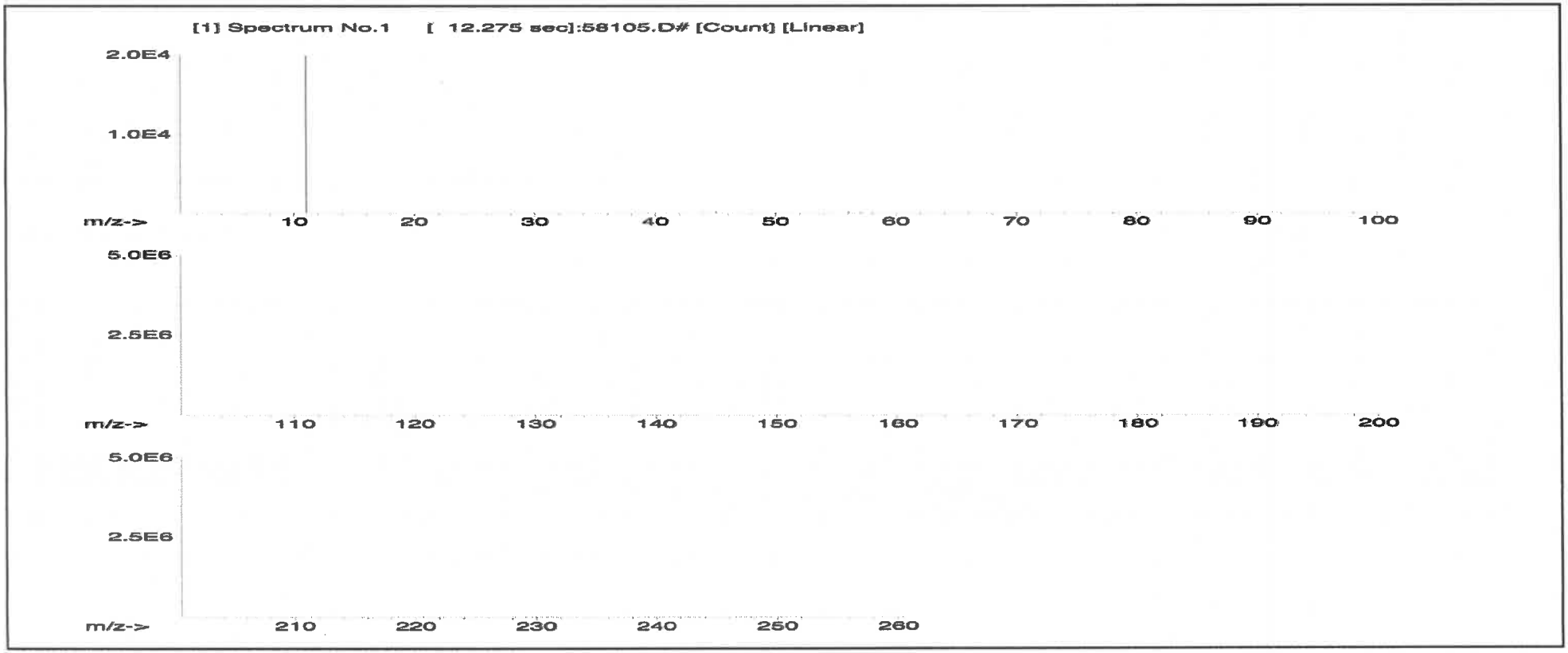
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CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Solvent:**	MKBQ8597V	Ammonium hydroxide
Lot Number:	**071123**				
Description:	**Boron (B)**		2.0%	40.0 (mL)	Ammonium hydroxide
Expiration Date:	071126				
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):	1999.48	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. Boric acid (B)	IN018	BV092016A1	1000	99.9999	0.10	17.3	11.55772	11.56201	**1000.4**	**2.0**	10043-35-3	2 mg/m3	orl-rat 2660 mg/kg	3107



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	<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	T	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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* 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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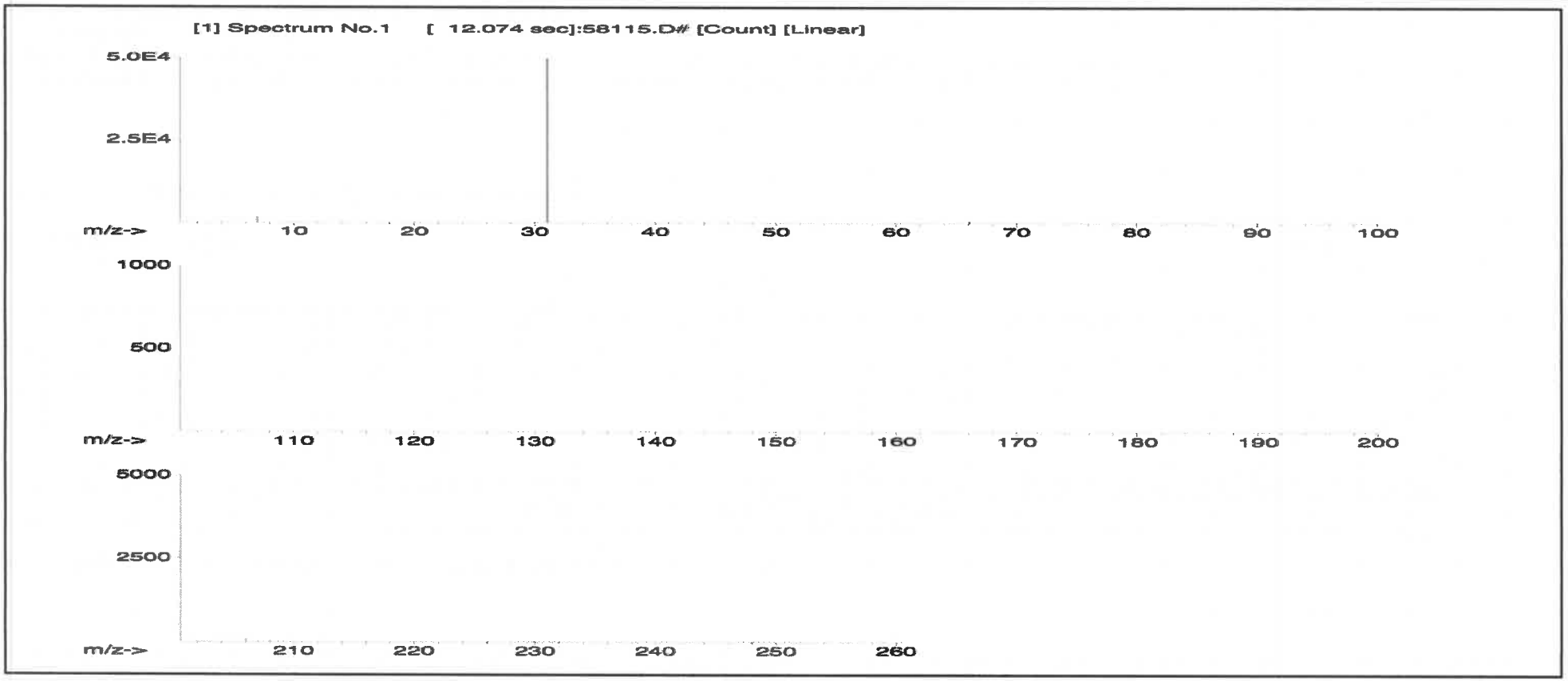
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CERTIFIED WEIGHT REPORT:

			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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* 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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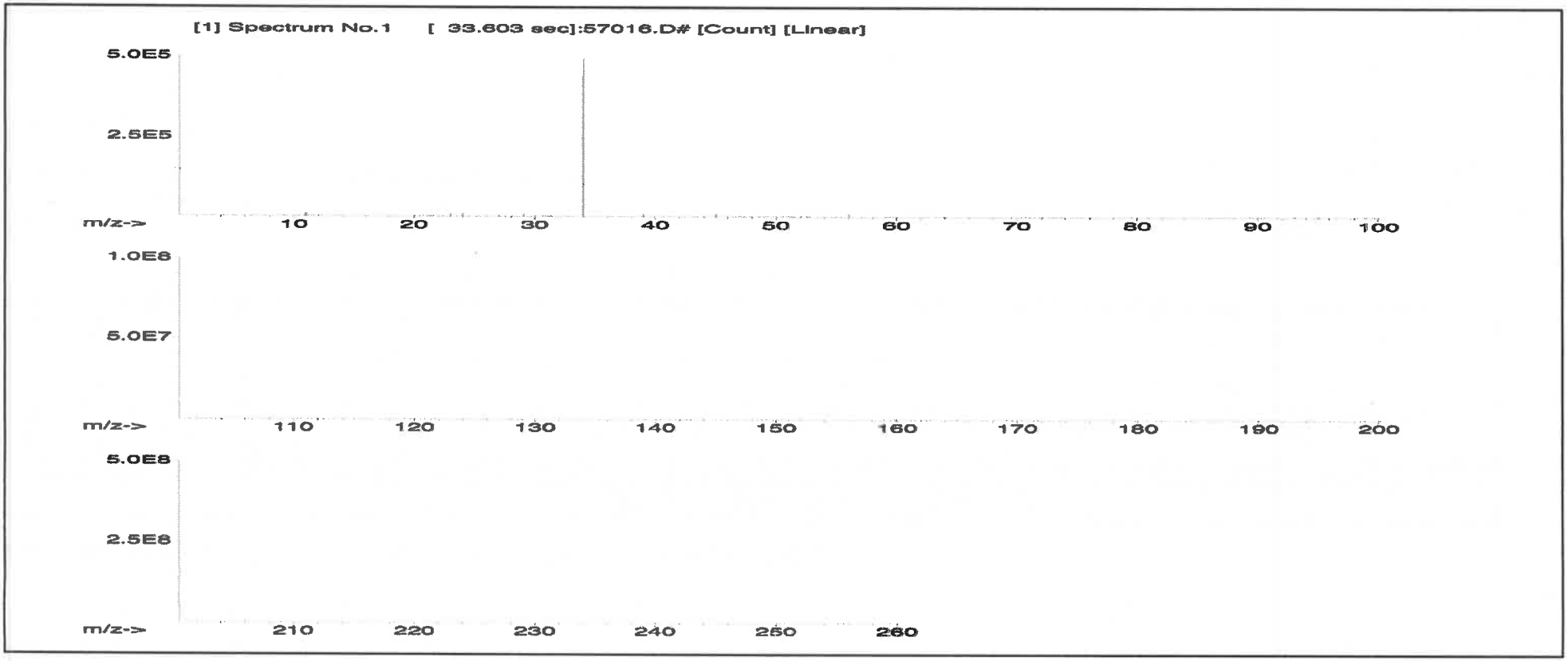
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CERTIFIED WEIGHT REPORT:

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:



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CERTIFIED WEIGHT REPORT:

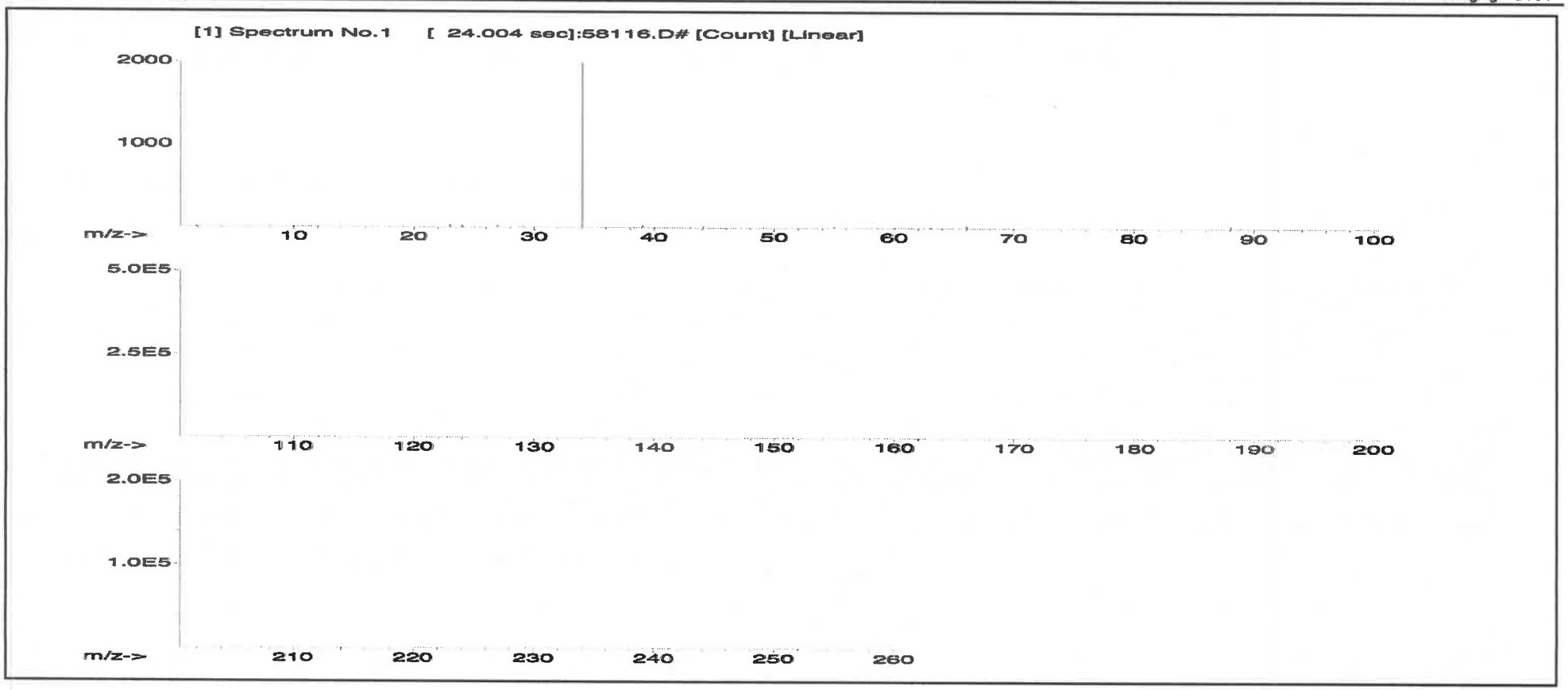
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

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.
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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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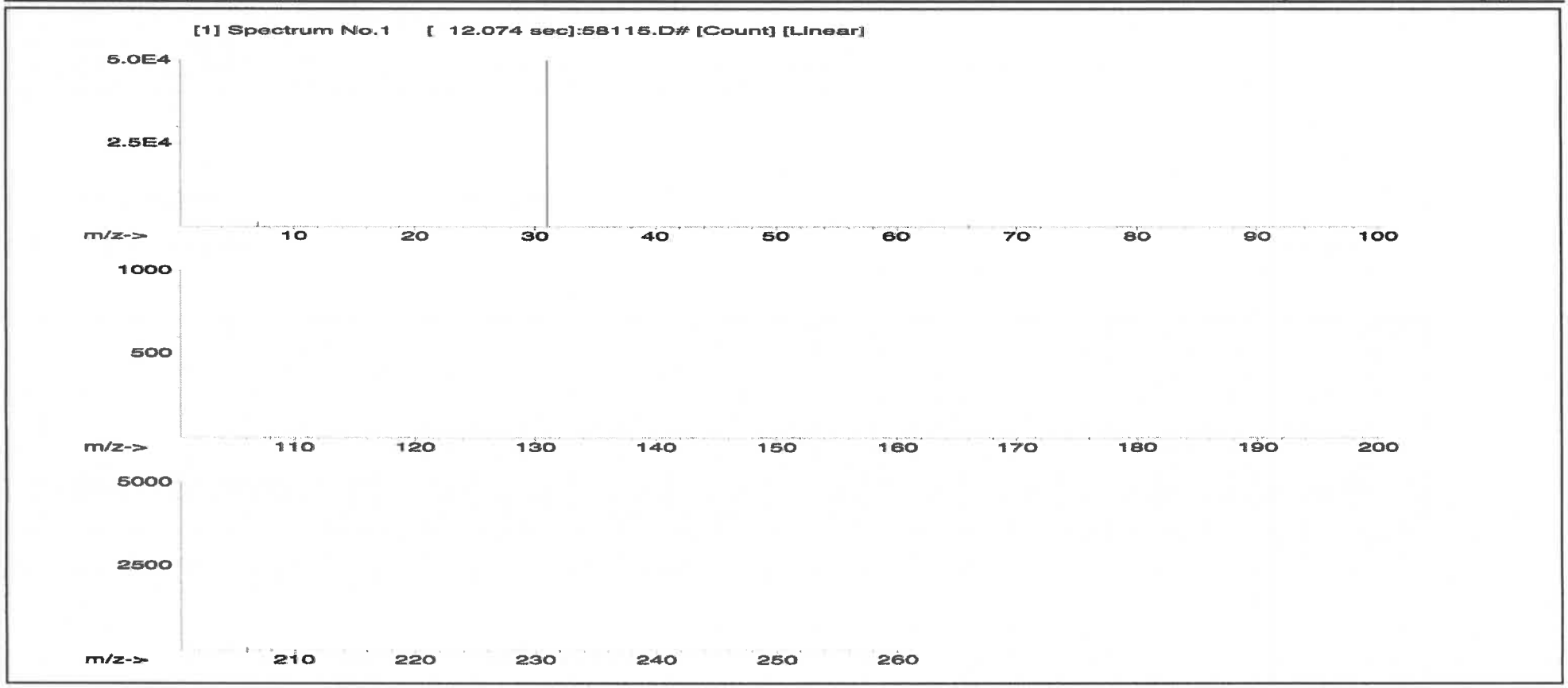
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CERTIFIED WEIGHT REPORT:

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.

* 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).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MT884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier

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 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

INORGANIC VENTURES™
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Certificate of Analysis

R: 02/22/24 M5942

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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



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M5959 R: 6/14/24.

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1.0 ACCREDITATION / REGISTRATION

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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

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 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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

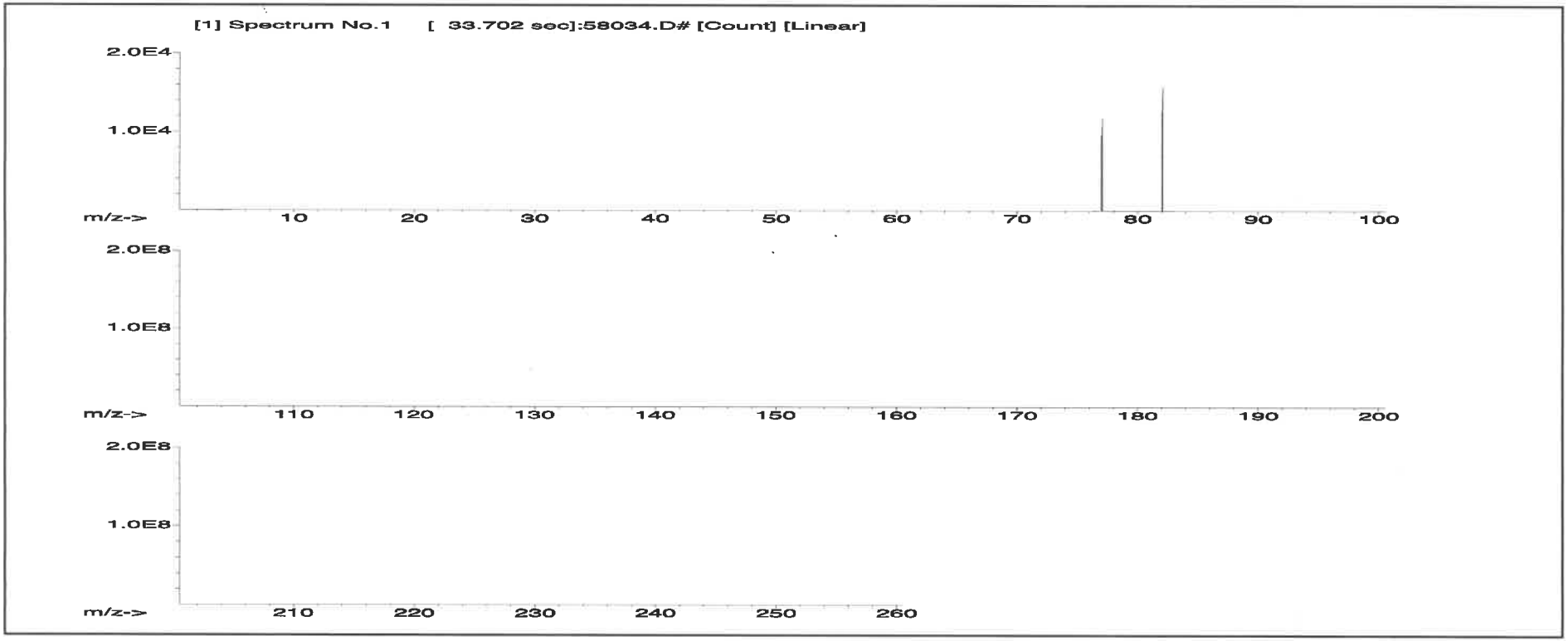
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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).

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Certified Reference Material CRM

M5970, M5971 R: 7/01/24

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AR-1539 Certificate Number
https://Absolutestandards.com

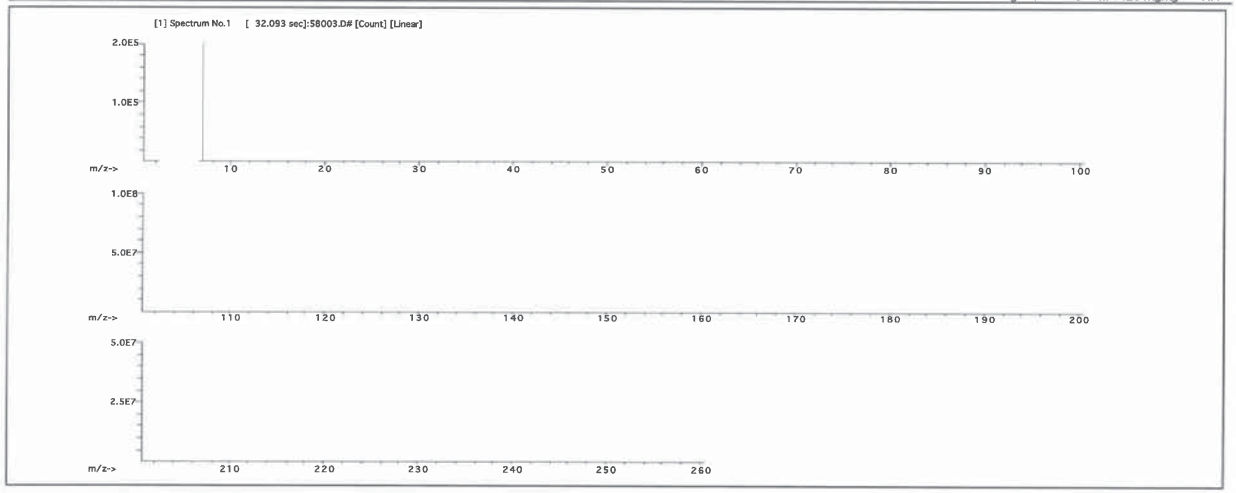
CERTIFIED WEIGHT REPORT:

		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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info@inorganicventures.com

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

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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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F: 540-585-3012
info@inorganicventures.com

R: 2/22/24
MS-997

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-3
Lot Number:	T2-MEB727800
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 ± 7 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.2 µg/mL**
Lead, Pb	**1 000 ± 4 µg/mL**	**Selenium, Se**	**1 000 ± 6 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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

December 21, 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

- December 21, 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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R! 08/22/24 M6058, M6059

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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:	CHEM-CLP-4
Lot Number:	V2-MEB746172
Matrix:	3% (v/v) HNO_3 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 ± 5 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	1 000 ± 6 µg/mL		

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

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**

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 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

- August 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



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EXP.: 9/6/2029

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:	V2-MEB746762
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 ± 5 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	**1 000 ± 6 µg/mL**		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

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

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**

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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 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

- September 06, 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



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EXP.: 9/6/2029

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-CLP-4
Lot Number:	V2-MEB746762
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 ± 5 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	**1 000 ± 6 µg/mL**		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

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

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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

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**

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

September 06, 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

- September 06, 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



M6125 Receive -> 11/22/24

CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

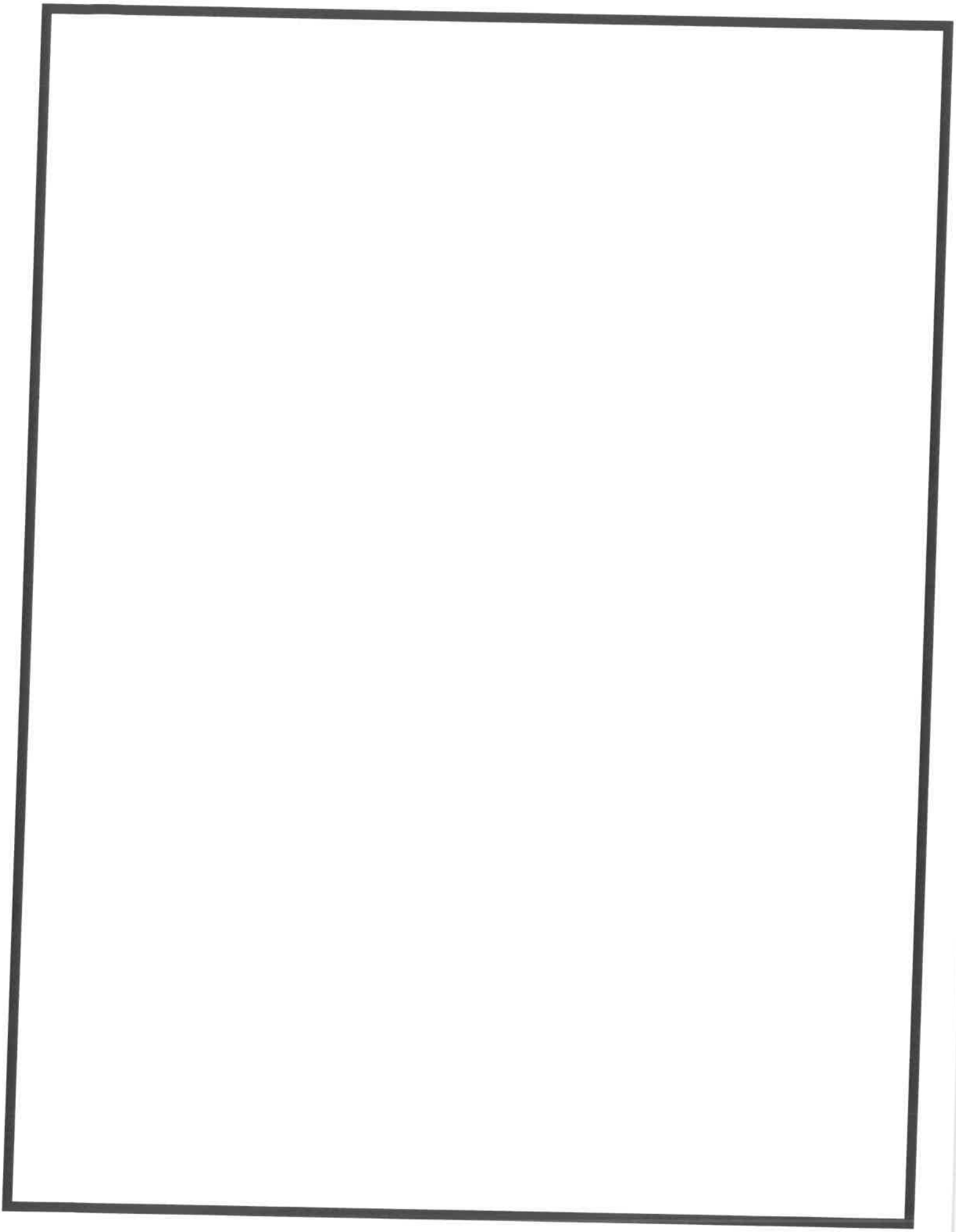
Office and Plant
299 Cedar Lane
Fairless Hills, PA 19030

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R -> 1/13/25

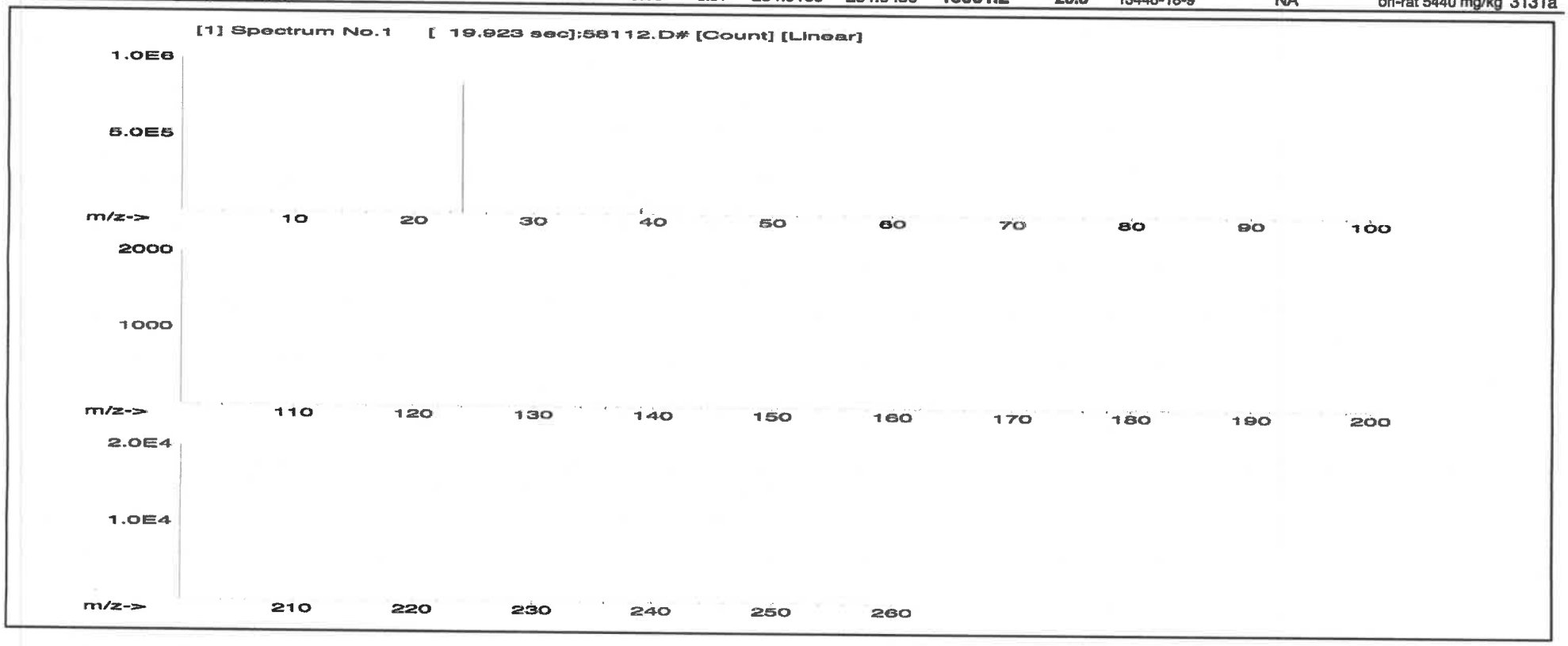
M 6127

			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:



* 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

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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	

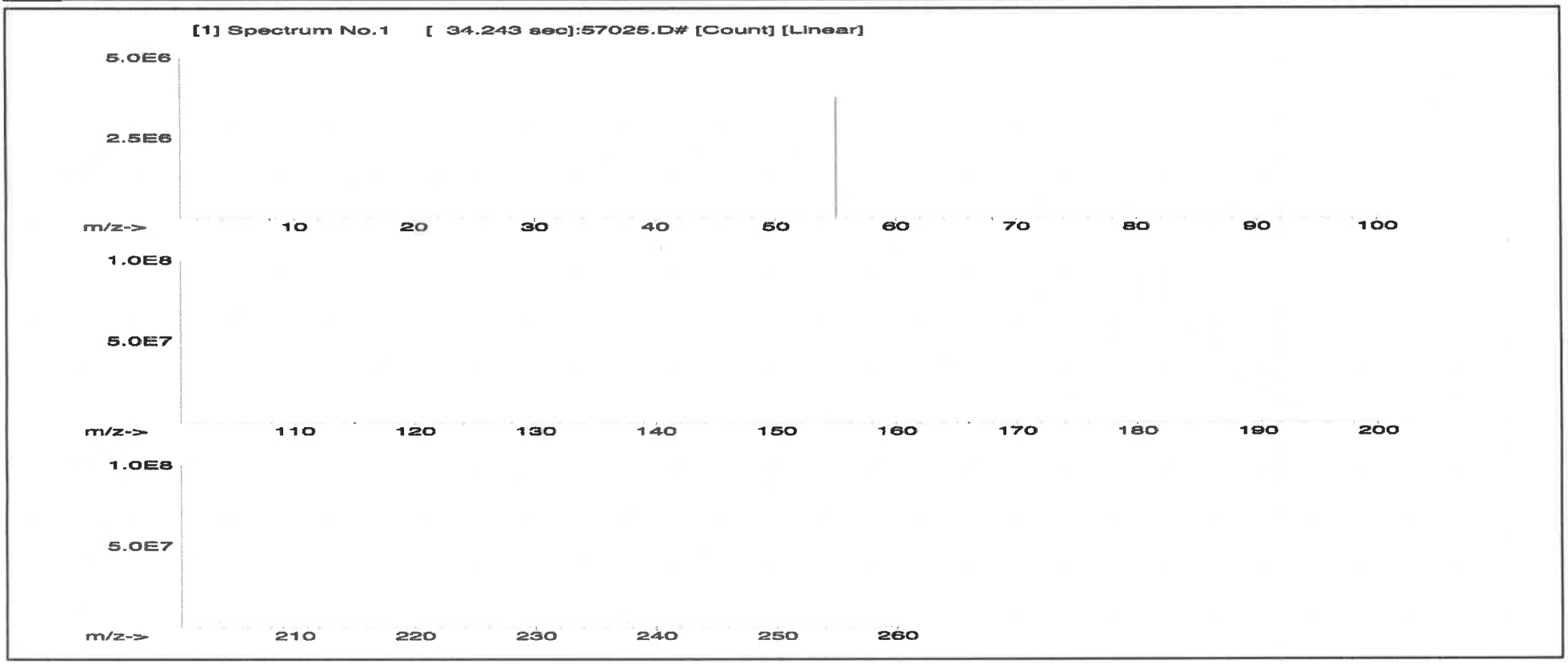
Giovanni Esposito

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:



* 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

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6137 R→10/3/24

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 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**999 ± 5 µg/mL** ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
Assay Method #2	**1000 ± 7 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	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

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 - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. 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 silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

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 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

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

July 10, 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

- **July 10, 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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

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AR-1539 Certificate Number
https://Absolutestandards.com

M6138
R->1/13/25

CERTIFIED WEIGHT REPORT:

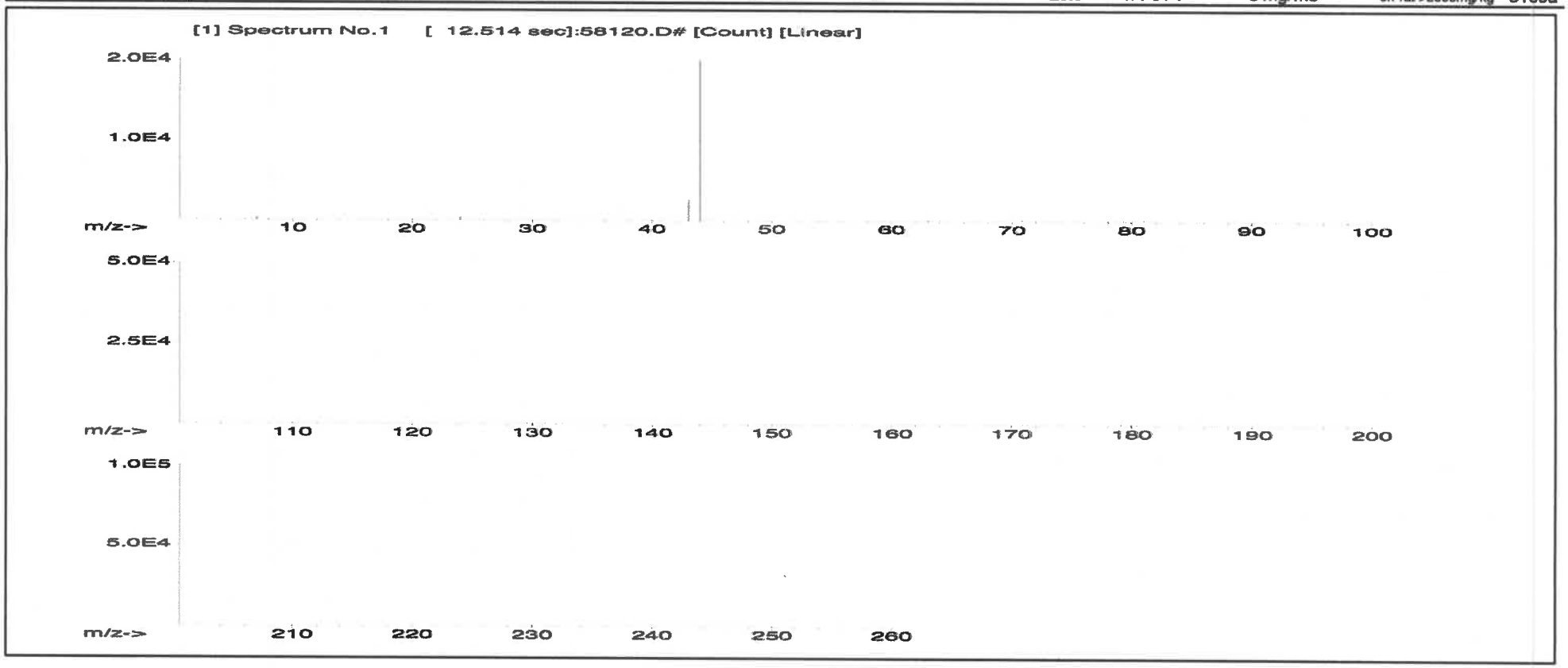
Part Number: 58120
Lot Number: 121824
Description: Calcium (Ca)
Expiration Date: 121827
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.1

	Lot #		
Solvent:	24012496	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.15	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	121824
Reviewed By:	Pedro L. Rentas	121824

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	CAD03203B3	10000	99.999	0.10	39.9	100.2537	100.2677	**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	30	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 WEIGHT REPORT:

R-> 1/13/25

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

M6141
M6142
M6143

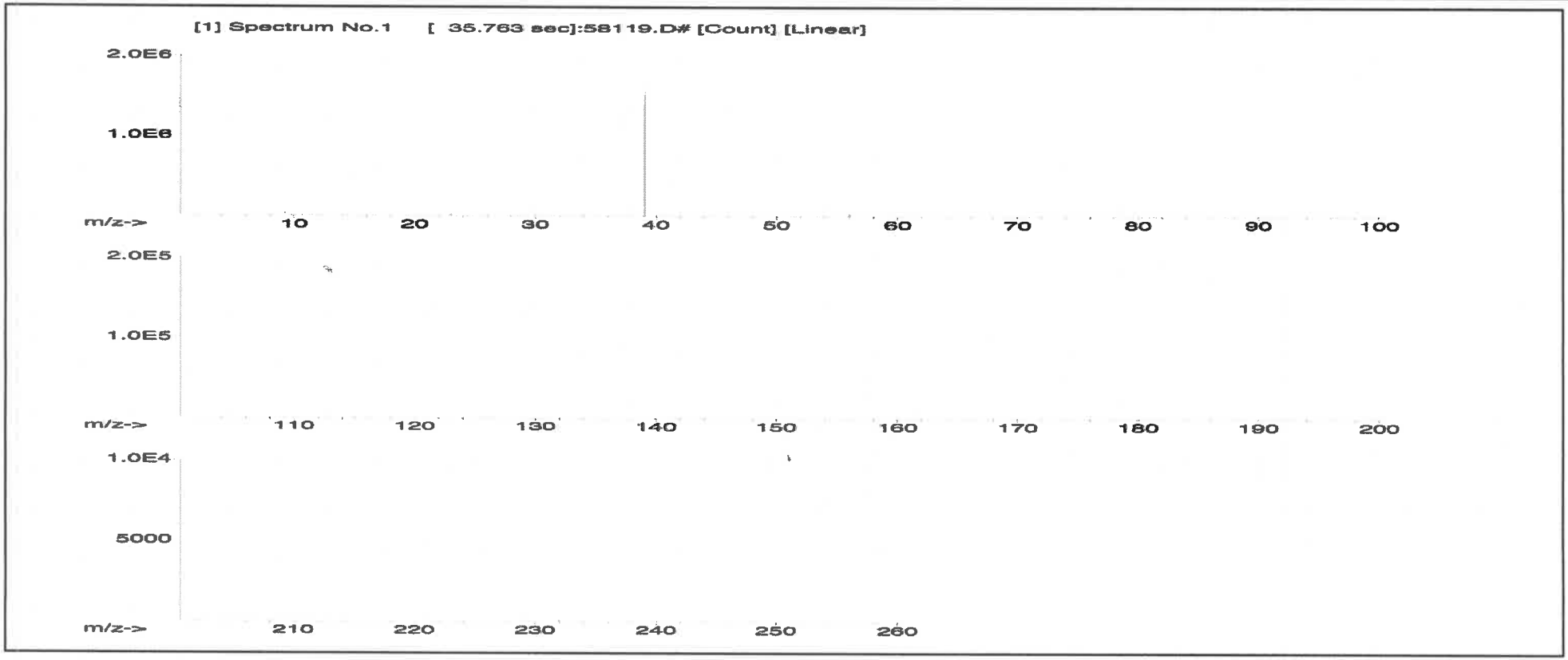
Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	103024

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	KD062022A1	10000	99.999	0.10	37.7	106.1040	######	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3750 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.
* 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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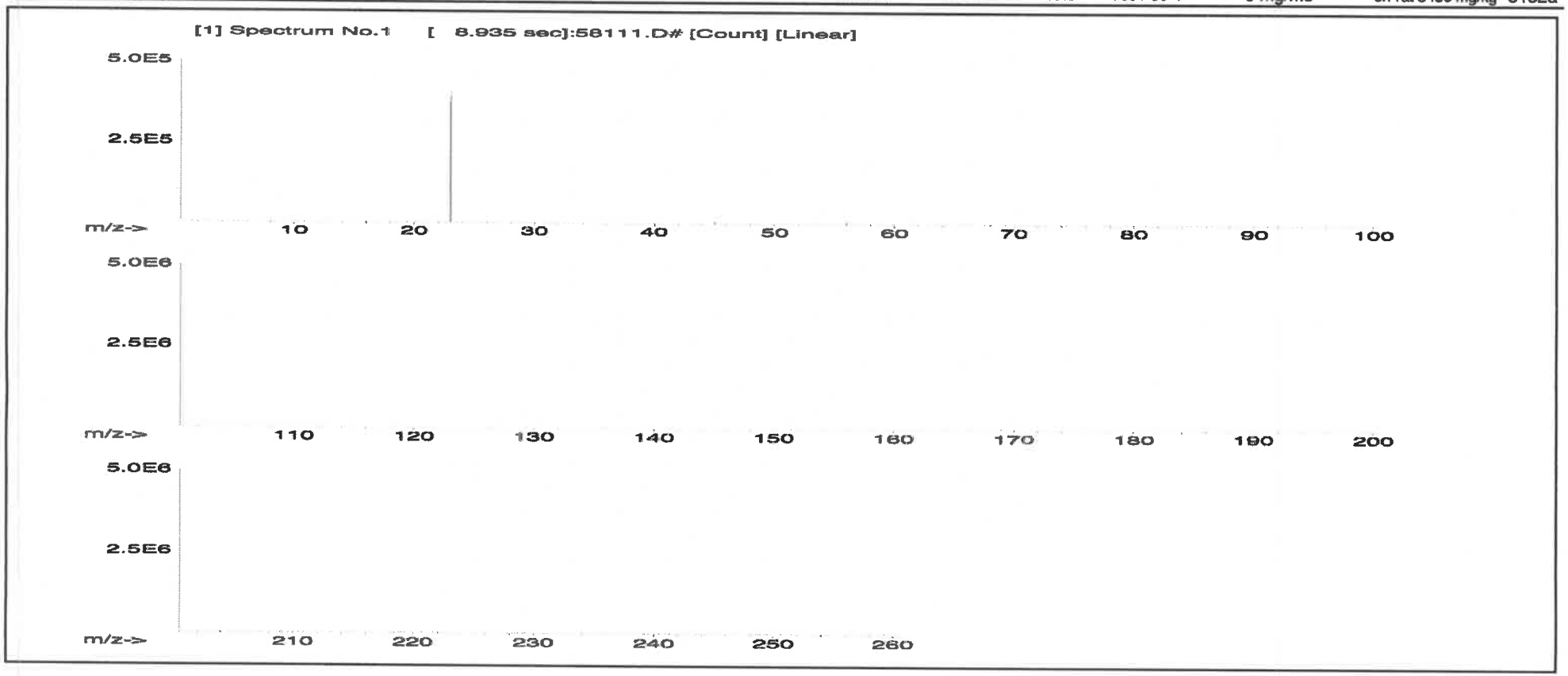
CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number:	**58111**		**Lot #**		
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**				
		MG144 2%	80.0 (mL)	Nitric Acid	
Expiration Date:	072427				
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):	4000.2	0.10	Flask Uncertainty		

Formulated By:	Benson Chan 072424
Reviewed By:	Pedro L. Rentas 072424

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	148.7096	######	**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	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	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.

* 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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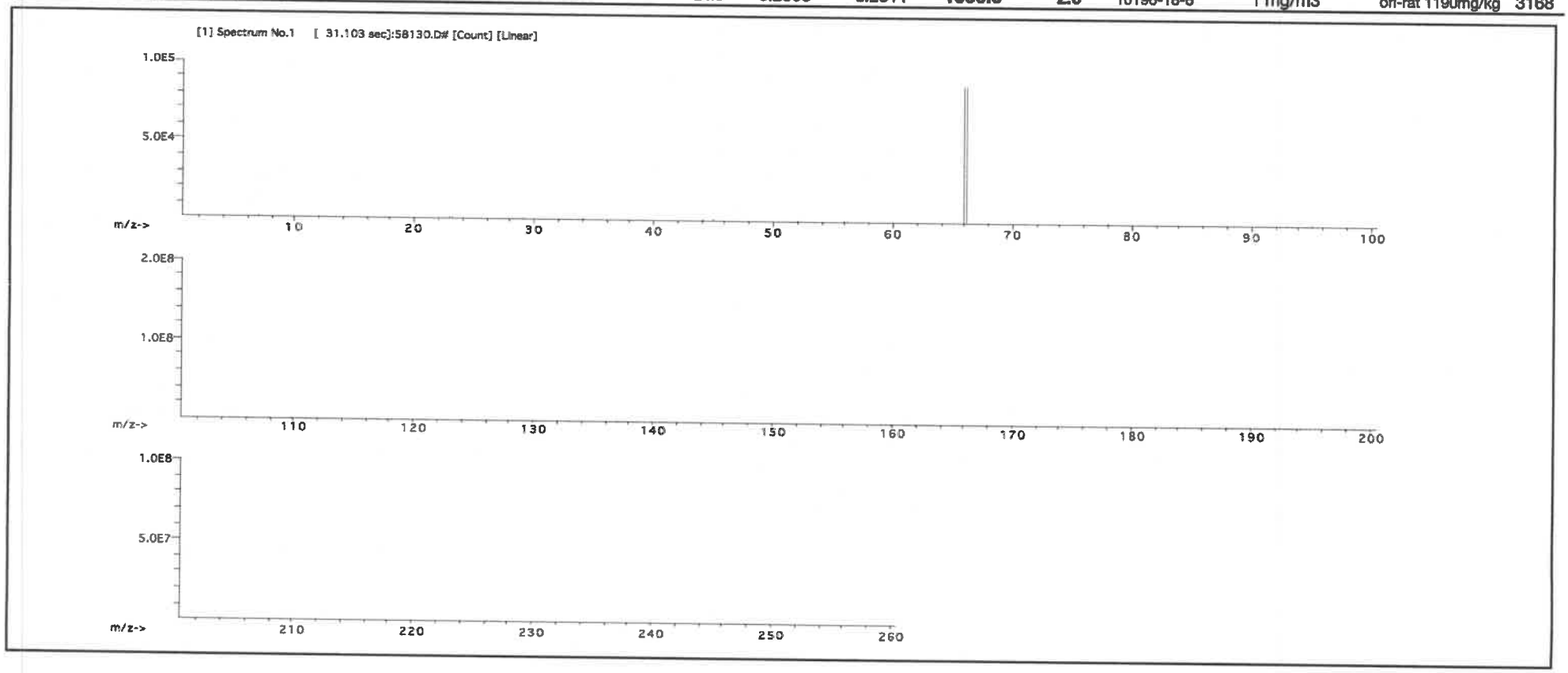
CERTIFIED WEIGHT REPORT:

Part Number:	**58030**	R → 1/13/25	**Solvent:**	**Lot #** 24012496	Nitric Acid
Lot Number:	**121724**				
Description:	**Zinc (Zn)**	M6145	2%	40.0 (mL)	Nitric Acid
Expiration Date:	121727				
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	121724
Reviewed By:	Pedro L. Rentas	121724

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	8.2308	8.2311	**1000.0**	**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:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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R : 4/20/21

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

M6150

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

(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

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

avantor™ | J.T.Baker®

M6151

R-> 1/15/25

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

Certificate of Analysis

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

>>> Continued on page 2 >>>

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

avantor™ | J.T.Baker®

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

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

>>> Continued on page 3 >>>

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

avantor™ | J.T.Baker®

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

Test	Specification	Result

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

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

James T Ethier

Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R-02102/2025

M-6158

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

Certificate of Analysis

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

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

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

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

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

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

Test	Specification	Result

For Microelectronic Use

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

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6030

R: 8/5/24

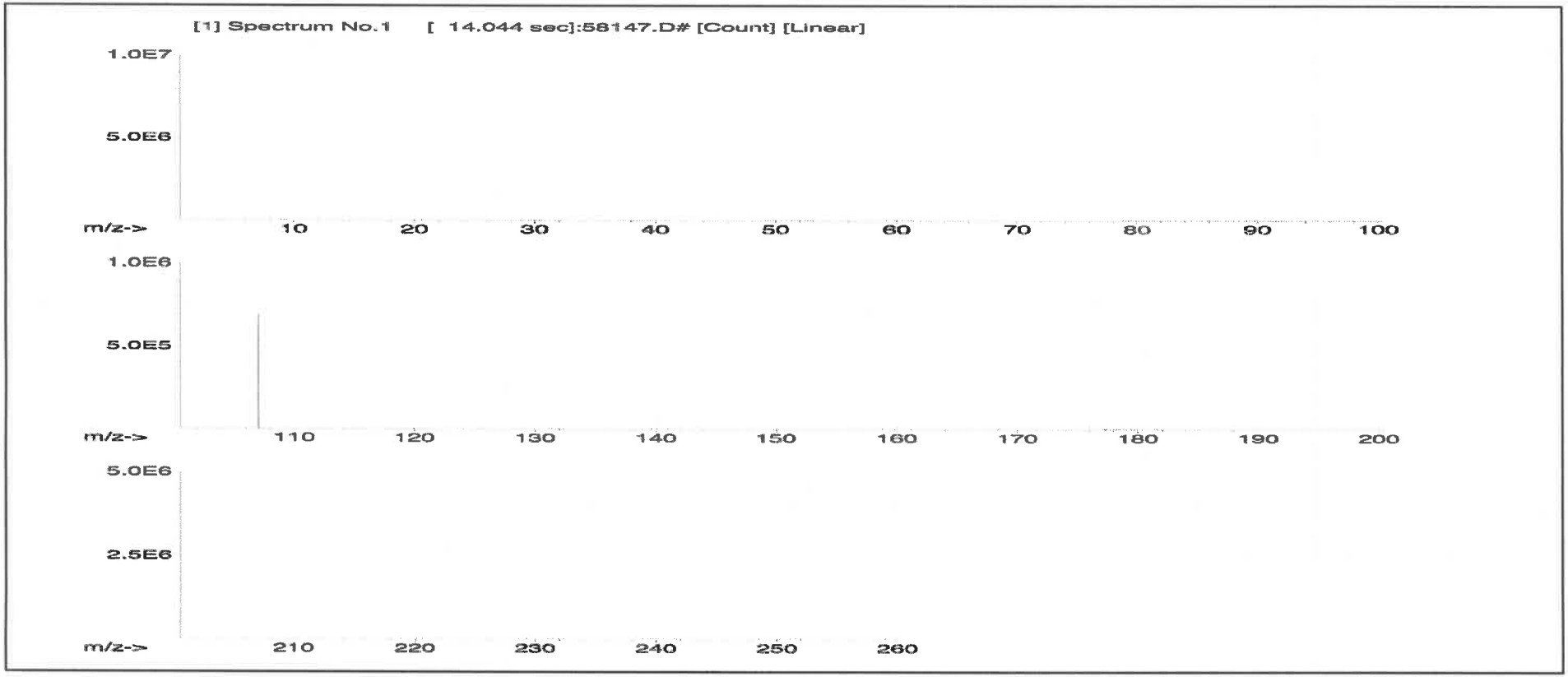
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 10/18/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

MG146

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**071724**			
Description:	**Antimony (Sb)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071727			
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):	2000.26	0.058	Flask Uncertainty	

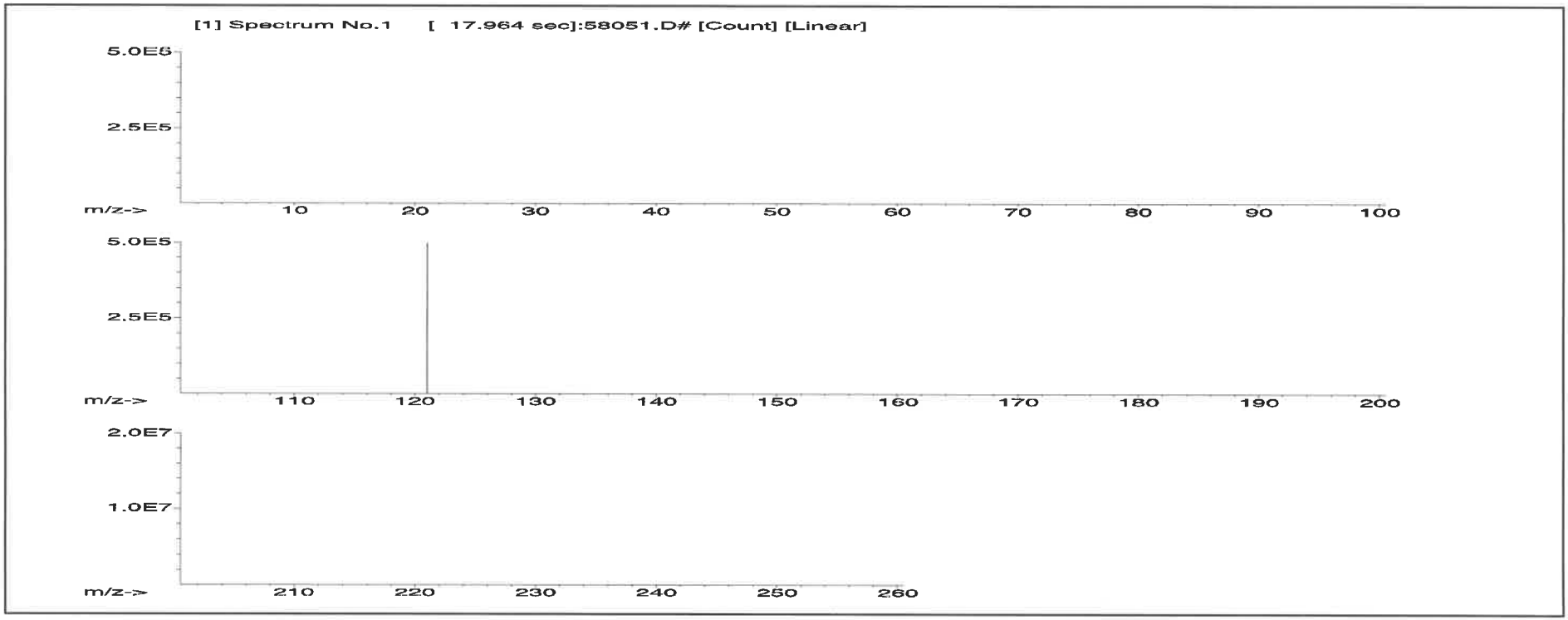
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

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	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	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:

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).

APTIM

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.

M6152

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

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.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

APTIM

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.

M6155

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

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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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

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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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1.0 ACCREDITATION / REGISTRATION

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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

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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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R ! 8/5/24

M6023

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

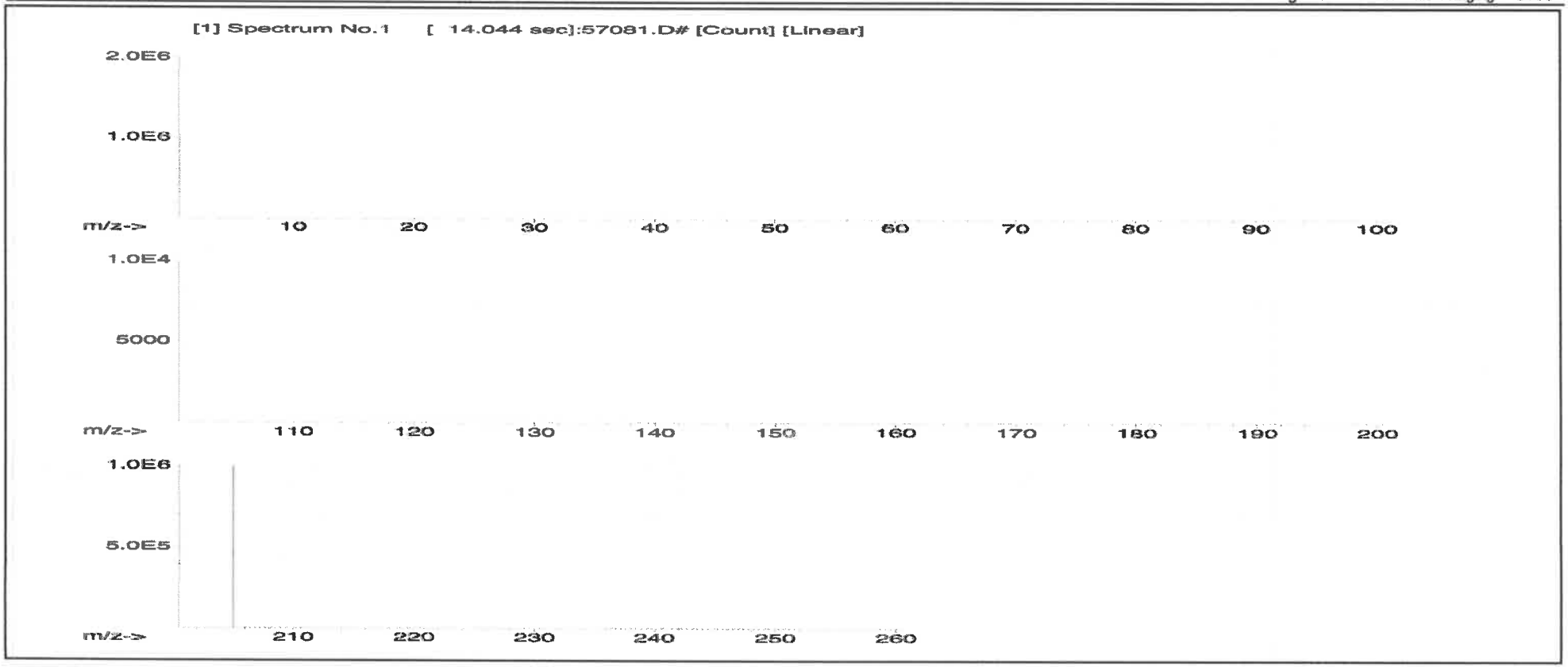
CERTIFIED WEIGHT REPORT:

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	

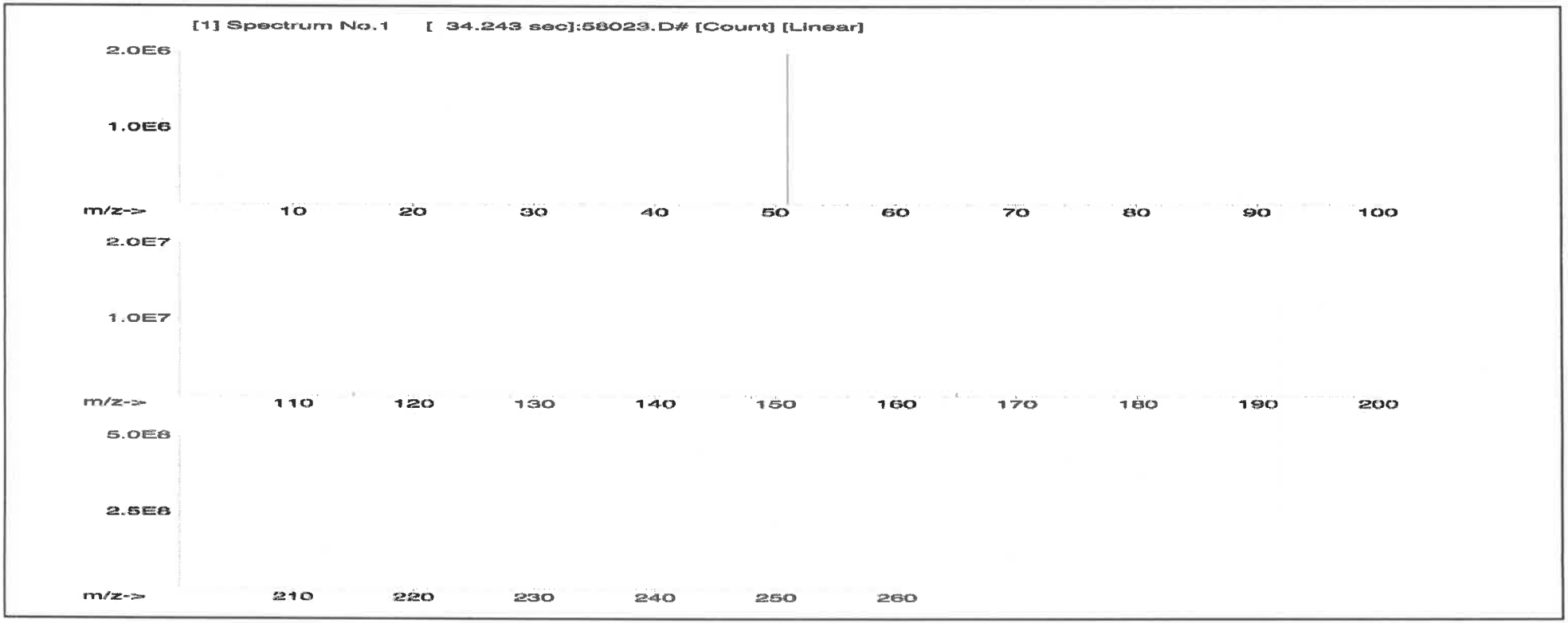
Aleah O'Brady

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.

* 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.
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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).



SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

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

ALLIANCE PROJECT NO.
QUOTE NO. Q1982
COC Number 2047009

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: CDM SMITH
ADDRESS: 110 FIELDCREST AVE #8 6TH FLOOR
CITY EDISON STATE: NJ ZIP: 08837
ATTENTION: MARCIE ENCINAS
PHONE: 7325904679 FAX: 7322257851

CLIENT PROJECT INFORMATION

PROJECT NAME: SOUTH RIVER WM REPLACEMENT
PROJECT NO.: 302781 LOCATION: SOUTH RIVER
PROJECT MANAGER: MARCIE ENCINAS
e-mail: ENCINASMA@CDMSMITH.COM
PHONE: 7325904679 FAX: 732-225-7851

CLIENT BILLING INFORMATION

BILL TO: CDM SMITH PO#:
ADDRESS: 110 FIELDCREST AVE #8 6TH FLOOR
CITY EDISON STATE: NJ ZIP: 08837
ATTENTION: MARCIE ENCINAS PHONE: 7325904679

DATA TURNAROUND INFORMATION

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

DATA DELIVERABLE INFORMATION

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

ANALYSIS

1. TCL VOC
2. TCL SVOC
3. TAL METALS
4. PCBs
5. PESTICIDE
6. HERBICIDE
7. DRO/GRO
8.
9.

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
1.	TP-1	SOIL		X	5/6/25	0837	6	X	X	X	X	X	X	X			E
2.	TP-2B	SOIL		X	5/6/25	1116	6	X	X	X	X	X	X	X			E
3.	TP-3	SOIL		X	5/6/25	1310	6	X	X	X	X	X	X	X			E
4.	TP-4	SOIL		X	5/7/25	0815	6	X	X	X	X	X	X	X			E
5.	TP-5	SOIL		X	5/7/25	1047	6	X	X	X	X	X	X	X			E
6.	TP-6	SOIL		X	5/7/25	1150	6	X	X	X	X	X	X	X			E
7.	TP-8	SOIL		X	5/7/25	1245	6	X	X	X	X	X	X	X			E
8.	TP-9	SOIL		X	5/7/25	1330	6	X	X	X	X	X	X	X			E
9.																	
10.																	

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

RELINQUISHED BY SAMPLER:	DATE/TIME	RECEIVED BY:	DATE/TIME
1.	5/7/25 1455	1.	1455 5-7-25
2.		2.	
3.	DATE/TIME: 1600 5-7-25	3.	

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.1 °C
Comments: Temp 3.1° CAdjustment Factor + DIR Gun #1

Page ____ of

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

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

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

Laboratory Certification

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

QA Control Code: A2070148

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1982 CAMP02
Client Name : CDM Smith
Client Contact : Marcie Ann Encinas
Invoice Name : CDM Smith
Invoice Contact : Marcie Ann Encinas

Order Date : 5/7/2025 3:20:42 PM
Project Name : South River WM Replacem
Receive DateTime : 5/7/2025 ~~12:00:00~~ AM 16:02
Purchase Order :

Project Mgr :
Report Type : ~~Level I~~ NJ Reduce
EDD Type : EXCEL NOCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1982-01	TP-1	Solid	~~05/07/2025~~ 05/06/2025	08:37	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1982-02	TP-2B	Solid	~~05/07/2025~~ 05/06/2025	11:16	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1982-03	TP-3	Solid	~~05/07/2025~~ 05/06/2025	13:10	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1982-04	TP-4	Solid	05/07/2025	08:15	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1982-05	TP-5	Solid	05/07/2025	10:47	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1982-06	TP-6	Solid	05/07/2025	11:50	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1982-07	~~TP-7~~ TP-8	Solid	05/07/2025	12:45	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1982-08	~~TP-8~~ TP-9	Solid	05/07/2025	13:30					

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1982 CAMP02
Client Name : CDM Smith
Client Contact : Marcie Ann Encinas
Invoice Name : CDM Smith
Invoice Contact : Marcie Ann Encinas

Order Date : 5/7/2025 3:20:42 PM
Project Name : South River WM Replacem
Receive DateTime : 5/7/2025 ~~12:00:00 AM~~ 16:02
Purchase Order :

Project Mgr :
Report Type : ~~Level I~~ NJ Reduce
EDD Type : EXCEL NOCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOC-TCLVOA-10		8260D	10 Bus. Days	

Relinguished By : [signature]
Date / Time : 5/8/25 0850

Received By : Sam
Date / Time : 05/08/25 08:50

Storage Area : VOA Refridgerator Room

RB46
D22