

Cover Page

Order ID : P4822

Project ID : BAPS North Bergen

Client : BAPS North Bergen

Lab Sample Number

P4822-01
P4822-02
P4822-03
P4822-04
P4822-05
P4822-06
P4822-07
P4822-08
P4822-09
P4822-10
P4822-11
P4822-12

Client Sample Number

SOIL-1
SOIL-1
SOIL-2
SOIL-2
SOIL-3
SOIL-3
SOIL-4
SOIL-4
SOIL-5
SOIL-5
SOIL-6
SOIL-6

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 11/21/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4822

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: KETAN PATEL

Date: 11/21/2024

LAB CHRONICLE

OrderID:	P4822	OrderDate:	11/12/2024 1:54:09 PM
Client:	BAPS North Bergen	Project:	BAPS North Bergen
Contact:	Rakesh Patel	Location:	L21,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4822-02	SOIL-1	SOIL			11/12/24			11/12/24
			Mercury	7471B		11/13/24	11/13/24	
			Metals ICP-TAL	6010D		11/13/24	11/14/24	
P4822-04	SOIL-2	SOIL			11/12/24			11/12/24
			Mercury	7471B		11/13/24	11/13/24	
			Metals ICP-TAL	6010D		11/13/24	11/14/24	
P4822-06	SOIL-3	SOIL			11/12/24			11/12/24
			Mercury	7471B		11/13/24	11/13/24	
			Metals ICP-TAL	6010D		11/13/24	11/14/24	
P4822-08	SOIL-4	SOIL			11/12/24			11/12/24
			Mercury	7471B		11/13/24	11/13/24	
			Metals ICP-TAL	6010D		11/13/24	11/14/24	
P4822-10	SOIL-5	SOIL			11/12/24			11/12/24
			Mercury	7471B		11/13/24	11/13/24	
			Metals ICP-TAL	6010D		11/13/24	11/14/24	
P4822-12	SOIL-6	SOIL			11/12/24			11/12/24
			Mercury	7471B		11/13/24	11/13/24	
			Metals ICP-TAL	6010D		11/13/24	11/14/24	

Hit Summary Sheet SW-846

SDG No.: P4822

Order ID: P4822

Client: BAPS North Bergen

Project ID: BAPS North Bergen

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : SOIL-1								
P4822-02	SOIL-1	SOIL	Aluminum	6920		2.25	4.66	mg/Kg
P4822-02	SOIL-1	SOIL	Arsenic	6.16		0.27	0.93	mg/Kg
P4822-02	SOIL-1	SOIL	Barium	42.0		0.60	4.66	mg/Kg
P4822-02	SOIL-1	SOIL	Beryllium	0.64		0.011	0.28	mg/Kg
P4822-02	SOIL-1	SOIL	Cadmium	1.72		0.015	0.28	mg/Kg
P4822-02	SOIL-1	SOIL	Calcium	2800		2.61	93.3	mg/Kg
P4822-02	SOIL-1	SOIL	Chromium	16.6		0.050	0.47	mg/Kg
P4822-02	SOIL-1	SOIL	Cobalt	8.64		0.054	1.40	mg/Kg
P4822-02	SOIL-1	SOIL	Copper	26.0		0.44	0.93	mg/Kg
P4822-02	SOIL-1	SOIL	Iron	11700		2.51	4.66	mg/Kg
P4822-02	SOIL-1	SOIL	Lead	73.4		0.14	0.56	mg/Kg
P4822-02	SOIL-1	SOIL	Magnesium	4900		3.20	93.3	mg/Kg
P4822-02	SOIL-1	SOIL	Manganese	305		0.066	0.93	mg/Kg
P4822-02	SOIL-1	SOIL	Mercury	0.047		0.0060	0.014	mg/Kg
P4822-02	SOIL-1	SOIL	Nickel	13.9		0.084	1.87	mg/Kg
P4822-02	SOIL-1	SOIL	Potassium	2500		26.8	93.3	mg/Kg
P4822-02	SOIL-1	SOIL	Silver	0.42	J	0.049	0.47	mg/Kg
P4822-02	SOIL-1	SOIL	Sodium	140		33.7	93.3	mg/Kg
P4822-02	SOIL-1	SOIL	Vanadium	29.4		0.25	1.87	mg/Kg
P4822-02	SOIL-1	SOIL	Zinc	128		0.10	1.87	mg/Kg
Client ID : SOIL-2								
P4822-04	SOIL-2	SOIL	Aluminum	7990		2.21	4.59	mg/Kg
P4822-04	SOIL-2	SOIL	Arsenic	6.84		0.27	0.92	mg/Kg
P4822-04	SOIL-2	SOIL	Barium	45.4		0.59	4.59	mg/Kg
P4822-04	SOIL-2	SOIL	Beryllium	0.76		0.011	0.28	mg/Kg
P4822-04	SOIL-2	SOIL	Cadmium	2.23		0.015	0.28	mg/Kg
P4822-04	SOIL-2	SOIL	Calcium	4650		2.57	91.8	mg/Kg
P4822-04	SOIL-2	SOIL	Chromium	17.0		0.050	0.46	mg/Kg
P4822-04	SOIL-2	SOIL	Cobalt	10.2		0.053	1.38	mg/Kg
P4822-04	SOIL-2	SOIL	Copper	32.4		0.43	0.92	mg/Kg
P4822-04	SOIL-2	SOIL	Iron	12200		2.47	4.59	mg/Kg
P4822-04	SOIL-2	SOIL	Lead	97.0		0.14	0.55	mg/Kg
P4822-04	SOIL-2	SOIL	Magnesium	6480		3.15	91.8	mg/Kg
P4822-04	SOIL-2	SOIL	Manganese	360		0.065	0.92	mg/Kg
P4822-04	SOIL-2	SOIL	Mercury	0.059		0.0060	0.014	mg/Kg
P4822-04	SOIL-2	SOIL	Nickel	18.2		0.083	1.84	mg/Kg
P4822-04	SOIL-2	SOIL	Potassium	2430		26.3	91.8	mg/Kg

Hit Summary Sheet
SW-846

SDG No.: P4822

Order ID: P4822

Client: BAPS North Bergen

Project ID: BAPS North Bergen

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
P4822-04	SOIL-2	SOIL	Silver	0.44	J	0.048	0.46	mg/Kg
P4822-04	SOIL-2	SOIL	Sodium	133		33.1	91.8	mg/Kg
P4822-04	SOIL-2	SOIL	Vanadium	32.9		0.25	1.84	mg/Kg
P4822-04	SOIL-2	SOIL	Zinc	176		0.10	1.84	mg/Kg
Client ID : SOIL-3								
P4822-06	SOIL-3	SOIL	Aluminum	7270		2.18	4.52	mg/Kg
P4822-06	SOIL-3	SOIL	Antimony	0.32	J	0.14	2.26	mg/Kg
P4822-06	SOIL-3	SOIL	Arsenic	6.44		0.26	0.90	mg/Kg
P4822-06	SOIL-3	SOIL	Barium	41.5		0.58	4.52	mg/Kg
P4822-06	SOIL-3	SOIL	Beryllium	0.68		0.011	0.27	mg/Kg
P4822-06	SOIL-3	SOIL	Cadmium	1.94		0.014	0.27	mg/Kg
P4822-06	SOIL-3	SOIL	Calcium	3130		2.53	90.4	mg/Kg
P4822-06	SOIL-3	SOIL	Chromium	17.3		0.049	0.45	mg/Kg
P4822-06	SOIL-3	SOIL	Cobalt	8.82		0.052	1.36	mg/Kg
P4822-06	SOIL-3	SOIL	Copper	30.3		0.43	0.90	mg/Kg
P4822-06	SOIL-3	SOIL	Iron	11300		2.43	4.52	mg/Kg
P4822-06	SOIL-3	SOIL	Lead	85.8		0.14	0.54	mg/Kg
P4822-06	SOIL-3	SOIL	Magnesium	4950		3.10	90.4	mg/Kg
P4822-06	SOIL-3	SOIL	Manganese	329		0.064	0.90	mg/Kg
P4822-06	SOIL-3	SOIL	Mercury	0.073		0.0070	0.015	mg/Kg
P4822-06	SOIL-3	SOIL	Nickel	15.9		0.081	1.81	mg/Kg
P4822-06	SOIL-3	SOIL	Potassium	2150		26.0	90.4	mg/Kg
P4822-06	SOIL-3	SOIL	Silver	0.38	J	0.047	0.45	mg/Kg
P4822-06	SOIL-3	SOIL	Sodium	118		32.6	90.4	mg/Kg
P4822-06	SOIL-3	SOIL	Vanadium	31.1		0.24	1.81	mg/Kg
P4822-06	SOIL-3	SOIL	Zinc	145		0.099	1.81	mg/Kg
Client ID : SOIL-4								
P4822-08	SOIL-4	SOIL	Aluminum	7540		2.19	4.54	mg/Kg
P4822-08	SOIL-4	SOIL	Antimony	0.29	J	0.14	2.27	mg/Kg
P4822-08	SOIL-4	SOIL	Arsenic	6.59		0.26	0.91	mg/Kg
P4822-08	SOIL-4	SOIL	Barium	46.6		0.58	4.54	mg/Kg
P4822-08	SOIL-4	SOIL	Beryllium	0.69		0.011	0.27	mg/Kg
P4822-08	SOIL-4	SOIL	Cadmium	2.02		0.015	0.27	mg/Kg
P4822-08	SOIL-4	SOIL	Calcium	4240		2.54	90.8	mg/Kg
P4822-08	SOIL-4	SOIL	Chromium	17.2		0.049	0.45	mg/Kg
P4822-08	SOIL-4	SOIL	Cobalt	9.43		0.053	1.36	mg/Kg
P4822-08	SOIL-4	SOIL	Copper	32.5		0.43	0.91	mg/Kg
P4822-08	SOIL-4	SOIL	Iron	11900		2.44	4.54	mg/Kg
P4822-08	SOIL-4	SOIL	Lead	92.0		0.14	0.55	mg/Kg

Hit Summary Sheet
SW-846

SDG No.: P4822

Order ID: P4822

Client: BAPS North Bergen

Project ID: BAPS North Bergen

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
P4822-08	SOIL-4	SOIL	Magnesium	5190		3.12	90.8	mg/Kg
P4822-08	SOIL-4	SOIL	Manganese	324		0.064	0.91	mg/Kg
P4822-08	SOIL-4	SOIL	Mercury	0.063		0.0060	0.013	mg/Kg
P4822-08	SOIL-4	SOIL	Nickel	17.3		0.082	1.82	mg/Kg
P4822-08	SOIL-4	SOIL	Potassium	2440		26.1	90.8	mg/Kg
P4822-08	SOIL-4	SOIL	Silver	0.39	J	0.047	0.45	mg/Kg
P4822-08	SOIL-4	SOIL	Sodium	142		32.8	90.8	mg/Kg
P4822-08	SOIL-4	SOIL	Vanadium	30.9		0.25	1.82	mg/Kg
P4822-08	SOIL-4	SOIL	Zinc	168		0.10	1.82	mg/Kg
Client ID : SOIL-5								
P4822-10	SOIL-5	SOIL	Aluminum	7940		2.20	4.57	mg/Kg
P4822-10	SOIL-5	SOIL	Arsenic	6.87		0.27	0.92	mg/Kg
P4822-10	SOIL-5	SOIL	Barium	39.7		0.59	4.57	mg/Kg
P4822-10	SOIL-5	SOIL	Beryllium	0.73		0.011	0.27	mg/Kg
P4822-10	SOIL-5	SOIL	Cadmium	1.96		0.015	0.27	mg/Kg
P4822-10	SOIL-5	SOIL	Calcium	2870		2.56	91.5	mg/Kg
P4822-10	SOIL-5	SOIL	Chromium	16.4		0.049	0.46	mg/Kg
P4822-10	SOIL-5	SOIL	Cobalt	9.43		0.053	1.37	mg/Kg
P4822-10	SOIL-5	SOIL	Copper	23.6		0.43	0.92	mg/Kg
P4822-10	SOIL-5	SOIL	Iron	11700		2.46	4.57	mg/Kg
P4822-10	SOIL-5	SOIL	Lead	66.9		0.14	0.55	mg/Kg
P4822-10	SOIL-5	SOIL	Magnesium	5500		3.14	91.5	mg/Kg
P4822-10	SOIL-5	SOIL	Manganese	334		0.065	0.92	mg/Kg
P4822-10	SOIL-5	SOIL	Mercury	0.029		0.0060	0.014	mg/Kg
P4822-10	SOIL-5	SOIL	Nickel	15.7		0.082	1.83	mg/Kg
P4822-10	SOIL-5	SOIL	Potassium	2410		26.2	91.5	mg/Kg
P4822-10	SOIL-5	SOIL	Silver	0.40	J	0.048	0.46	mg/Kg
P4822-10	SOIL-5	SOIL	Sodium	138		33.0	91.5	mg/Kg
P4822-10	SOIL-5	SOIL	Vanadium	32.3		0.25	1.83	mg/Kg
P4822-10	SOIL-5	SOIL	Zinc	125		0.10	1.83	mg/Kg
Client ID : SOIL-6								
P4822-12	SOIL-6	SOIL	Aluminum	8720		2.19	4.54	mg/Kg
P4822-12	SOIL-6	SOIL	Arsenic	7.53		0.26	0.91	mg/Kg
P4822-12	SOIL-6	SOIL	Barium	47.7		0.58	4.54	mg/Kg
P4822-12	SOIL-6	SOIL	Beryllium	0.78		0.011	0.27	mg/Kg
P4822-12	SOIL-6	SOIL	Cadmium	2.34		0.015	0.27	mg/Kg
P4822-12	SOIL-6	SOIL	Calcium	6900		2.55	90.9	mg/Kg
P4822-12	SOIL-6	SOIL	Chromium	19.0		0.049	0.45	mg/Kg
P4822-12	SOIL-6	SOIL	Cobalt	10.5		0.053	1.36	mg/Kg

Hit Summary Sheet
SW-846

SDG No.: P4822

Order ID: P4822

Client: BAPS North Bergen

Project ID: BAPS North Bergen

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
P4822-12	SOIL-6	SOIL	Copper	25.4		0.43	0.91	mg/Kg
P4822-12	SOIL-6	SOIL	Iron	13000		2.45	4.54	mg/Kg
P4822-12	SOIL-6	SOIL	Lead	67.2		0.14	0.55	mg/Kg
P4822-12	SOIL-6	SOIL	Magnesium	5840		3.12	90.9	mg/Kg
P4822-12	SOIL-6	SOIL	Manganese	343		0.065	0.91	mg/Kg
P4822-12	SOIL-6	SOIL	Mercury	0.035		0.0070	0.015	mg/Kg
P4822-12	SOIL-6	SOIL	Nickel	17.6		0.082	1.82	mg/Kg
P4822-12	SOIL-6	SOIL	Potassium	2900		26.1	90.9	mg/Kg
P4822-12	SOIL-6	SOIL	Silver	0.46		0.047	0.45	mg/Kg
P4822-12	SOIL-6	SOIL	Sodium	148		32.8	90.9	mg/Kg
P4822-12	SOIL-6	SOIL	Vanadium	34.7		0.25	1.82	mg/Kg
P4822-12	SOIL-6	SOIL	Zinc	133		0.10	1.82	mg/Kg



SAMPLE DATA

Report of Analysis

Client:	BAPS North Bergen	Date Collected:	11/12/24
Project:	BAPS North Bergen	Date Received:	11/12/24
Client Sample ID:	SOIL-1	SDG No.:	P4822
Lab Sample ID:	P4822-02	Matrix:	SOIL
Level (low/med):	low	% Solid:	92.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	6920		1	2.25	4.66	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-36-0	Antimony	0.14	U	1	0.14	2.33	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-38-2	Arsenic	6.16		1	0.27	0.93	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-39-3	Barium	42.0		1	0.60	4.66	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-41-7	Beryllium	0.64	N	1	0.011	0.28	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-43-9	Cadmium	1.72		1	0.015	0.28	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-70-2	Calcium	2800		1	2.61	93.3	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-47-3	Chromium	16.6	N	1	0.050	0.47	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-48-4	Cobalt	8.64		1	0.054	1.40	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-50-8	Copper	26.0	N	1	0.44	0.93	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7439-89-6	Iron	11700		1	2.51	4.66	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7439-92-1	Lead	73.4		1	0.14	0.56	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7439-95-4	Magnesium	4900		1	3.20	93.3	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7439-96-5	Manganese	305		1	0.066	0.93	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7439-97-6	Mercury	0.047		1	0.0060	0.014	mg/Kg	11/13/24 09:25	11/13/24 13:21	SW7471B	
7440-02-0	Nickel	13.9		1	0.084	1.87	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-09-7	Potassium	2500		1	26.8	93.3	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7782-49-2	Selenium	0.31	UN	1	0.31	0.93	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-22-4	Silver	0.42	J	1	0.049	0.47	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-23-5	Sodium	140	N	1	33.7	93.3	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-28-0	Thallium	0.41	U	1	0.41	1.87	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-62-2	Vanadium	29.4	N	1	0.25	1.87	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050
7440-66-6	Zinc	128		1	0.10	1.87	mg/Kg	11/13/24 09:10	11/14/24 18:00	SW6010	SW3050

Color Before:	LightBrown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	N/A
Comments:	TCL+30/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

Report of Analysis

Client:	BAPS North Bergen	Date Collected:	11/12/24
Project:	BAPS North Bergen	Date Received:	11/12/24
Client Sample ID:	SOIL-2	SDG No.:	P4822
Lab Sample ID:	P4822-04	Matrix:	SOIL
Level (low/med):	low	% Solid:	89.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	7990		1	2.21	4.59	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-36-0	Antimony	0.14	U	1	0.14	2.29	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-38-2	Arsenic	6.84		1	0.27	0.92	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-39-3	Barium	45.4		1	0.59	4.59	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-41-7	Beryllium	0.76	N	1	0.011	0.28	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-43-9	Cadmium	2.23		1	0.015	0.28	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-70-2	Calcium	4650		1	2.57	91.8	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-47-3	Chromium	17.0	N	1	0.050	0.46	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-48-4	Cobalt	10.2		1	0.053	1.38	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-50-8	Copper	32.4	N	1	0.43	0.92	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7439-89-6	Iron	12200		1	2.47	4.59	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7439-92-1	Lead	97.0		1	0.14	0.55	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7439-95-4	Magnesium	6480		1	3.15	91.8	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7439-96-5	Manganese	360		1	0.065	0.92	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7439-97-6	Mercury	0.059		1	0.0060	0.014	mg/Kg	11/13/24 09:25	11/13/24 13:23	SW7471B	
7440-02-0	Nickel	18.2		1	0.083	1.84	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-09-7	Potassium	2430		1	26.3	91.8	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7782-49-2	Selenium	0.30	UN	1	0.30	0.92	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-22-4	Silver	0.44	J	1	0.048	0.46	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-23-5	Sodium	133	N	1	33.1	91.8	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-28-0	Thallium	0.40	U	1	0.40	1.84	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-62-2	Vanadium	32.9	N	1	0.25	1.84	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050
7440-66-6	Zinc	176		1	0.10	1.84	mg/Kg	11/13/24 09:10	11/14/24 18:33	SW6010	SW3050

Color Before:	LightBrown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	N/A
Comments:	TCL+30/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

Report of Analysis

Client:	BAPS North Bergen	Date Collected:	11/12/24
Project:	BAPS North Bergen	Date Received:	11/12/24
Client Sample ID:	SOIL-3	SDG No.:	P4822
Lab Sample ID:	P4822-06	Matrix:	SOIL
Level (low/med):	low	% Solid:	91.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	7270		1	2.18	4.52	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-36-0	Antimony	0.32	J	1	0.14	2.26	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-38-2	Arsenic	6.44		1	0.26	0.90	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-39-3	Barium	41.5		1	0.58	4.52	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-41-7	Beryllium	0.68	N	1	0.011	0.27	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-43-9	Cadmium	1.94		1	0.014	0.27	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-70-2	Calcium	3130		1	2.53	90.4	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-47-3	Chromium	17.3	N	1	0.049	0.45	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-48-4	Cobalt	8.82		1	0.052	1.36	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-50-8	Copper	30.3	N	1	0.43	0.90	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7439-89-6	Iron	11300		1	2.43	4.52	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7439-92-1	Lead	85.8		1	0.14	0.54	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7439-95-4	Magnesium	4950		1	3.10	90.4	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7439-96-5	Manganese	329		1	0.064	0.90	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7439-97-6	Mercury	0.073		1	0.0070	0.015	mg/Kg	11/13/24 09:25	11/13/24 13:41	SW7471B	
7440-02-0	Nickel	15.9		1	0.081	1.81	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-09-7	Potassium	2150		1	26.0	90.4	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7782-49-2	Selenium	0.30	UN	1	0.30	0.90	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-22-4	Silver	0.38	J	1	0.047	0.45	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-23-5	Sodium	118	N	1	32.6	90.4	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-28-0	Thallium	0.40	U	1	0.40	1.81	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-62-2	Vanadium	31.1	N	1	0.24	1.81	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050
7440-66-6	Zinc	145		1	0.099	1.81	mg/Kg	11/13/24 09:10	11/14/24 18:37	SW6010	SW3050

Color Before:	Light Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	N/A
Comments:	TCL+30/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

Report of Analysis

Client:	BAPS North Bergen	Date Collected:	11/12/24
Project:	BAPS North Bergen	Date Received:	11/12/24
Client Sample ID:	SOIL-4	SDG No.:	P4822
Lab Sample ID:	P4822-08	Matrix:	SOIL
Level (low/med):	low	% Solid:	92.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	7540		1	2.19	4.54	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-36-0	Antimony	0.29	J	1	0.14	2.27	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-38-2	Arsenic	6.59		1	0.26	0.91	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-39-3	Barium	46.6		1	0.58	4.54	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-41-7	Beryllium	0.69	N	1	0.011	0.27	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-43-9	Cadmium	2.02		1	0.015	0.27	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-70-2	Calcium	4240		1	2.54	90.8	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-47-3	Chromium	17.2	N	1	0.049	0.45	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-48-4	Cobalt	9.43		1	0.053	1.36	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-50-8	Copper	32.5	N	1	0.43	0.91	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7439-89-6	Iron	11900		1	2.44	4.54	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7439-92-1	Lead	92.0		1	0.14	0.55	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7439-95-4	Magnesium	5190		1	3.12	90.8	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7439-96-5	Manganese	324		1	0.064	0.91	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7439-97-6	Mercury	0.063		1	0.0060	0.013	mg/Kg	11/13/24 09:25	11/13/24 13:43	SW7471B	
7440-02-0	Nickel	17.3		1	0.082	1.82	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-09-7	Potassium	2440		1	26.1	90.8	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7782-49-2	Selenium	0.30	UN	1	0.30	0.91	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-22-4	Silver	0.39	J	1	0.047	0.45	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-23-5	Sodium	142	N	1	32.8	90.8	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-28-0	Thallium	0.40	U	1	0.40	1.82	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-62-2	Vanadium	30.9	N	1	0.25	1.82	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050
7440-66-6	Zinc	168		1	0.10	1.82	mg/Kg	11/13/24 09:10	11/14/24 18:41	SW6010	SW3050

Color Before:	Light Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	N/A
Comments:	TCL+30/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

Report of Analysis

Client:	BAPS North Bergen	Date Collected:	11/12/24
Project:	BAPS North Bergen	Date Received:	11/12/24
Client Sample ID:	SOIL-5	SDG No.:	P4822
Lab Sample ID:	P4822-10	Matrix:	SOIL
Level (low/med):	low	% Solid:	91.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	7940		1	2.20	4.57	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-36-0	Antimony	0.14	U	1	0.14	2.29	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-38-2	Arsenic	6.87		1	0.27	0.92	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-39-3	Barium	39.7		1	0.59	4.57	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-41-7	Beryllium	0.73	N	1	0.011	0.27	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-43-9	Cadmium	1.96		1	0.015	0.27	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-70-2	Calcium	2870		1	2.56	91.5	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-47-3	Chromium	16.4	N	1	0.049	0.46	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-48-4	Cobalt	9.43		1	0.053	1.37	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-50-8	Copper	23.6	N	1	0.43	0.92	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7439-89-6	Iron	11700		1	2.46	4.57	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7439-92-1	Lead	66.9		1	0.14	0.55	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7439-95-4	Magnesium	5500		1	3.14	91.5	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7439-96-5	Manganese	334		1	0.065	0.92	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7439-97-6	Mercury	0.029		1	0.0060	0.014	mg/Kg	11/13/24 09:25	11/13/24 13:46	SW7471B	
7440-02-0	Nickel	15.7		1	0.082	1.83	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-09-7	Potassium	2410		1	26.2	91.5	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7782-49-2	Selenium	0.30	UN	1	0.30	0.92	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-22-4	Silver	0.40	J	1	0.048	0.46	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-23-5	Sodium	138	N	1	33.0	91.5	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-28-0	Thallium	0.40	U	1	0.40	1.83	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-62-2	Vanadium	32.3	N	1	0.25	1.83	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050
7440-66-6	Zinc	125		1	0.10	1.83	mg/Kg	11/13/24 09:10	11/14/24 18:45	SW6010	SW3050

Color Before:	Light Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	N/A
Comments:	TCL+30/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

Report of Analysis

Client:	BAPS North Bergen	Date Collected:	11/12/24
Project:	BAPS North Bergen	Date Received:	11/12/24
Client Sample ID:	SOIL-6	SDG No.:	P4822
Lab Sample ID:	P4822-12	Matrix:	SOIL
Level (low/med):	low	% Solid:	91.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	8720		1	2.19	4.54	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-36-0	Antimony	0.14	U	1	0.14	2.27	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-38-2	Arsenic	7.53		1	0.26	0.91	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-39-3	Barium	47.7		1	0.58	4.54	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-41-7	Beryllium	0.78	N	1	0.011	0.27	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-43-9	Cadmium	2.34		1	0.015	0.27	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-70-2	Calcium	6900		1	2.55	90.9	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-47-3	Chromium	19.0	N	1	0.049	0.45	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-48-4	Cobalt	10.5		1	0.053	1.36	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-50-8	Copper	25.4	N	1	0.43	0.91	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7439-89-6	Iron	13000		1	2.45	4.54	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7439-92-1	Lead	67.2		1	0.14	0.55	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7439-95-4	Magnesium	5840		1	3.12	90.9	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7439-96-5	Manganese	343		1	0.065	0.91	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7439-97-6	Mercury	0.035		1	0.0070	0.015	mg/Kg	11/13/24 09:25	11/13/24 13:48	SW7471B	
7440-02-0	Nickel	17.6		1	0.082	1.82	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-09-7	Potassium	2900		1	26.1	90.9	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7782-49-2	Selenium	0.30	UN	1	0.30	0.91	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-22-4	Silver	0.46		1	0.047	0.45	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-23-5	Sodium	148	N	1	32.8	90.9	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-28-0	Thallium	0.40	U	1	0.40	1.82	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-62-2	Vanadium	34.7	N	1	0.25	1.82	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050
7440-66-6	Zinc	133		1	0.10	1.82	mg/Kg	11/13/24 09:10	11/14/24 18:50	SW6010	SW3050

Color Before:	Light Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	N/A
Comments:	TCL+30/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



METAL CALIBRATION DATA

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
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
ICV84	Mercury	3.81	4.0	95	90 - 110	CV	11/13/2024	12:14	LB133424

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
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
CCV79	Mercury	4.88	5.0	98	90 - 110	CV	11/13/2024	12:21	LB133424
CCV80	Mercury	4.59	5.0	92	90 - 110	CV	11/13/2024	12:58	LB133424
CCV81	Mercury	4.83	5.0	97	90 - 110	CV	11/13/2024	13:34	LB133424
CCV82	Mercury	4.82	5.0	96	90 - 110	CV	11/13/2024	14:05	LB133424

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
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	2580	2500	103	90 - 110	P	11/14/2024	13:58	LB133457
	Antimony	1000	1000	100	90 - 110	P	11/14/2024	13:58	LB133457
	Arsenic	1040	1000	104	90 - 110	P	11/14/2024	13:58	LB133457
	Barium	520	520	100	90 - 110	P	11/14/2024	13:58	LB133457
	Beryllium	521	510	102	90 - 110	P	11/14/2024	13:58	LB133457
	Cadmium	508	510	100	90 - 110	P	11/14/2024	13:58	LB133457
	Calcium	10300	10000	103	90 - 110	P	11/14/2024	13:58	LB133457
	Chromium	533	520	102	90 - 110	P	11/14/2024	13:58	LB133457
	Cobalt	516	520	99	90 - 110	P	11/14/2024	13:58	LB133457
	Copper	532	510	104	90 - 110	P	11/14/2024	13:58	LB133457
	Iron	9960	10000	100	90 - 110	P	11/14/2024	13:58	LB133457
	Lead	1020	1000	102	90 - 110	P	11/14/2024	13:58	LB133457
	Magnesium	6020	6000	100	90 - 110	P	11/14/2024	13:58	LB133457
	Manganese	526	520	101	90 - 110	P	11/14/2024	13:58	LB133457
	Nickel	520	530	98	90 - 110	P	11/14/2024	13:58	LB133457
	Potassium	9810	9900	99	90 - 110	P	11/14/2024	13:58	LB133457
	Selenium	1040	1000	104	90 - 110	P	11/14/2024	13:58	LB133457
	Silver	255	250	102	90 - 110	P	11/14/2024	13:58	LB133457
	Sodium	9490	10000	95	90 - 110	P	11/14/2024	13:58	LB133457
	Thallium	1060	1000	106	90 - 110	P	11/14/2024	13:58	LB133457
	Vanadium	507	500	102	90 - 110	P	11/14/2024	13:58	LB133457
	Zinc	1050	1000	105	90 - 110	P	11/14/2024	13:58	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
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	94.9	100	95	80 - 120	P	11/14/2024	14:10	LB133457
	Antimony	45.5	50.0	91	80 - 120	P	11/14/2024	14:10	LB133457
	Arsenic	20.1	20.0	101	80 - 120	P	11/14/2024	14:10	LB133457
	Barium	94.7	100	95	80 - 120	P	11/14/2024	14:10	LB133457
	Beryllium	5.56	6.0	93	80 - 120	P	11/14/2024	14:10	LB133457
	Cadmium	6.49	6.0	108	80 - 120	P	11/14/2024	14:10	LB133457
	Calcium	1920	2000	96	80 - 120	P	11/14/2024	14:10	LB133457
	Chromium	9.23	10.0	92	80 - 120	P	11/14/2024	14:10	LB133457
	Cobalt	27.6	30.0	92	80 - 120	P	11/14/2024	14:10	LB133457
	Copper	20.5	20.0	103	80 - 120	P	11/14/2024	14:10	LB133457
	Iron	93.0	100	93	80 - 120	P	11/14/2024	14:10	LB133457
	Lead	10.8	12.0	90	80 - 120	P	11/14/2024	14:10	LB133457
	Magnesium	1910	2000	96	80 - 120	P	11/14/2024	14:10	LB133457
	Manganese	19.5	20.0	98	80 - 120	P	11/14/2024	14:10	LB133457
	Nickel	36.5	40.0	91	80 - 120	P	11/14/2024	14:10	LB133457
	Potassium	1780	2000	89	80 - 120	P	11/14/2024	14:10	LB133457
	Selenium	17.4	20.0	87	80 - 120	P	11/14/2024	14:10	LB133457
	Silver	9.68	10.0	97	80 - 120	P	11/14/2024	14:10	LB133457
	Sodium	1600	2000	80	80 - 120	P	11/14/2024	14:10	LB133457
	Thallium	37.7	40.0	94	80 - 120	P	11/14/2024	14:10	LB133457
	Vanadium	37.6	40.0	94	80 - 120	P	11/14/2024	14:10	LB133457
	Zinc	40.3	40.0	101	80 - 120	P	11/14/2024	14:10	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen **SDG No.:** P4822

Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822

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	10200	10000	102	90 - 110	P	11/14/2024	15:22	LB133457
	Antimony	5080	5000	102	90 - 110	P	11/14/2024	15:22	LB133457
	Arsenic	5030	5000	100	90 - 110	P	11/14/2024	15:22	LB133457
	Barium	10200	10000	102	90 - 110	P	11/14/2024	15:22	LB133457
	Beryllium	251	250	100	90 - 110	P	11/14/2024	15:22	LB133457
	Cadmium	2490	2500	100	90 - 110	P	11/14/2024	15:22	LB133457
	Calcium	25200	25000	101	90 - 110	P	11/14/2024	15:22	LB133457
	Chromium	1020	1000	102	90 - 110	P	11/14/2024	15:22	LB133457
	Cobalt	2490	2500	100	90 - 110	P	11/14/2024	15:22	LB133457
	Copper	1270	1250	102	90 - 110	P	11/14/2024	15:22	LB133457
	Iron	5030	5000	101	90 - 110	P	11/14/2024	15:22	LB133457
	Lead	4980	5000	100	90 - 110	P	11/14/2024	15:22	LB133457
	Magnesium	25400	25000	102	90 - 110	P	11/14/2024	15:22	LB133457
	Manganese	2490	2500	100	90 - 110	P	11/14/2024	15:22	LB133457
	Nickel	2500	2500	100	90 - 110	P	11/14/2024	15:22	LB133457
	Potassium	25400	25000	102	90 - 110	P	11/14/2024	15:22	LB133457
	Selenium	5080	5000	102	90 - 110	P	11/14/2024	15:22	LB133457
	Silver	1260	1250	101	90 - 110	P	11/14/2024	15:22	LB133457
	Sodium	25600	25000	102	90 - 110	P	11/14/2024	15:22	LB133457
	Thallium	4990	5000	100	90 - 110	P	11/14/2024	15:22	LB133457
	Vanadium	2530	2500	101	90 - 110	P	11/14/2024	15:22	LB133457
	Zinc	2560	2500	103	90 - 110	P	11/14/2024	15:22	LB133457
CCV02	Aluminum	9350	10000	94	90 - 110	P	11/14/2024	15:35	LB133457
	Antimony	4690	5000	94	90 - 110	P	11/14/2024	15:35	LB133457
	Arsenic	4660	5000	93	90 - 110	P	11/14/2024	15:35	LB133457
	Barium	9380	10000	94	90 - 110	P	11/14/2024	15:35	LB133457
	Beryllium	238	250	95	90 - 110	P	11/14/2024	15:35	LB133457
	Cadmium	2340	2500	94	90 - 110	P	11/14/2024	15:35	LB133457
	Calcium	23500	25000	94	90 - 110	P	11/14/2024	15:35	LB133457
	Chromium	952	1000	95	90 - 110	P	11/14/2024	15:35	LB133457
	Cobalt	2340	2500	93	90 - 110	P	11/14/2024	15:35	LB133457
	Copper	1180	1250	95	90 - 110	P	11/14/2024	15:35	LB133457
	Iron	4670	5000	94	90 - 110	P	11/14/2024	15:35	LB133457
	Lead	4680	5000	94	90 - 110	P	11/14/2024	15:35	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen **SDG No.:** P4822

Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822

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	23300	25000	93	90 - 110	P	11/14/2024	15:35	LB133457
	Manganese	2350	2500	94	90 - 110	P	11/14/2024	15:35	LB133457
	Nickel	2340	2500	94	90 - 110	P	11/14/2024	15:35	LB133457
	Potassium	23000	25000	92	90 - 110	P	11/14/2024	15:35	LB133457
	Selenium	4660	5000	93	90 - 110	P	11/14/2024	15:35	LB133457
	Silver	1180	1250	94	90 - 110	P	11/14/2024	15:35	LB133457
	Sodium	23400	25000	93	90 - 110	P	11/14/2024	15:35	LB133457
	Thallium	4730	5000	94	90 - 110	P	11/14/2024	15:35	LB133457
	Vanadium	2340	2500	94	90 - 110	P	11/14/2024	15:35	LB133457
	Zinc	2370	2500	95	90 - 110	P	11/14/2024	15:35	LB133457
CCV03	Aluminum	9840	10000	98	90 - 110	P	11/14/2024	16:27	LB133457
	Antimony	5140	5000	103	90 - 110	P	11/14/2024	16:27	LB133457
	Arsenic	5110	5000	102	90 - 110	P	11/14/2024	16:27	LB133457
	Barium	9600	10000	96	90 - 110	P	11/14/2024	16:27	LB133457
	Beryllium	245	250	98	90 - 110	P	11/14/2024	16:27	LB133457
	Cadmium	2540	2500	102	90 - 110	P	11/14/2024	16:27	LB133457
	Calcium	24300	25000	97	90 - 110	P	11/14/2024	16:27	LB133457
	Chromium	1020	1000	102	90 - 110	P	11/14/2024	16:27	LB133457
	Cobalt	2540	2500	102	90 - 110	P	11/14/2024	16:27	LB133457
	Copper	1300	1250	104	90 - 110	P	11/14/2024	16:27	LB133457
	Iron	4940	5000	99	90 - 110	P	11/14/2024	16:27	LB133457
	Lead	5090	5000	102	90 - 110	P	11/14/2024	16:27	LB133457
	Magnesium	24200	25000	97	90 - 110	P	11/14/2024	16:27	LB133457
	Manganese	2400	2500	96	90 - 110	P	11/14/2024	16:27	LB133457
	Nickel	2550	2500	102	90 - 110	P	11/14/2024	16:27	LB133457
	Potassium	24700	25000	99	90 - 110	P	11/14/2024	16:27	LB133457
	Selenium	5130	5000	103	90 - 110	P	11/14/2024	16:27	LB133457
	Silver	1250	1250	100	90 - 110	P	11/14/2024	16:27	LB133457
	Sodium	24700	25000	99	90 - 110	P	11/14/2024	16:27	LB133457
	Thallium	5050	5000	101	90 - 110	P	11/14/2024	16:27	LB133457
	Vanadium	2450	2500	98	90 - 110	P	11/14/2024	16:27	LB133457
	Zinc	2540	2500	102	90 - 110	P	11/14/2024	16:27	LB133457
CCV04	Aluminum	9510	10000	95	90 - 110	P	11/14/2024	17:23	LB133457
	Antimony	4720	5000	94	90 - 110	P	11/14/2024	17:23	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen **SDG No.:** P4822

Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822

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	4730	5000	94	90 - 110	P	11/14/2024	17:23	LB133457
	Barium	9470	10000	95	90 - 110	P	11/14/2024	17:23	LB133457
	Beryllium	243	250	97	90 - 110	P	11/14/2024	17:23	LB133457
	Cadmium	2380	2500	95	90 - 110	P	11/14/2024	17:23	LB133457
	Calcium	23900	25000	96	90 - 110	P	11/14/2024	17:23	LB133457
	Chromium	962	1000	96	90 - 110	P	11/14/2024	17:23	LB133457
	Cobalt	2380	2500	95	90 - 110	P	11/14/2024	17:23	LB133457
	Copper	1190	1250	95	90 - 110	P	11/14/2024	17:23	LB133457
	Iron	4720	5000	94	90 - 110	P	11/14/2024	17:23	LB133457
	Lead	4770	5000	95	90 - 110	P	11/14/2024	17:23	LB133457
	Magnesium	23700	25000	95	90 - 110	P	11/14/2024	17:23	LB133457
	Manganese	2370	2500	95	90 - 110	P	11/14/2024	17:23	LB133457
	Nickel	2390	2500	95	90 - 110	P	11/14/2024	17:23	LB133457
	Potassium	23200	25000	93	90 - 110	P	11/14/2024	17:23	LB133457
	Selenium	4710	5000	94	90 - 110	P	11/14/2024	17:23	LB133457
	Silver	1190	1250	95	90 - 110	P	11/14/2024	17:23	LB133457
	Sodium	23500	25000	94	90 - 110	P	11/14/2024	17:23	LB133457
	Thallium	4920	5000	98	90 - 110	P	11/14/2024	17:23	LB133457
	Vanadium	2380	2500	95	90 - 110	P	11/14/2024	17:23	LB133457
	Zinc	2410	2500	96	90 - 110	P	11/14/2024	17:23	LB133457
CCV05	Aluminum	9910	10000	99	90 - 110	P	11/14/2024	18:12	LB133457
	Antimony	4890	5000	98	90 - 110	P	11/14/2024	18:12	LB133457
	Arsenic	4900	5000	98	90 - 110	P	11/14/2024	18:12	LB133457
	Barium	9970	10000	100	90 - 110	P	11/14/2024	18:12	LB133457
	Beryllium	253	250	101	90 - 110	P	11/14/2024	18:12	LB133457
	Cadmium	2470	2500	99	90 - 110	P	11/14/2024	18:12	LB133457
	Calcium	24900	25000	100	90 - 110	P	11/14/2024	18:12	LB133457
	Chromium	996	1000	100	90 - 110	P	11/14/2024	18:12	LB133457
	Cobalt	2470	2500	99	90 - 110	P	11/14/2024	18:12	LB133457
	Copper	1240	1250	99	90 - 110	P	11/14/2024	18:12	LB133457
	Iron	4940	5000	99	90 - 110	P	11/14/2024	18:12	LB133457
	Lead	4960	5000	99	90 - 110	P	11/14/2024	18:12	LB133457
	Magnesium	24400	25000	98	90 - 110	P	11/14/2024	18:12	LB133457
	Manganese	2490	2500	100	90 - 110	P	11/14/2024	18:12	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen **SDG No.:** P4822

Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822

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	2480	2500	99	90 - 110	P	11/14/2024	18:12	LB133457
	Potassium	24300	25000	97	90 - 110	P	11/14/2024	18:12	LB133457
	Selenium	4860	5000	97	90 - 110	P	11/14/2024	18:12	LB133457
	Silver	1240	1250	99	90 - 110	P	11/14/2024	18:12	LB133457
	Sodium	24800	25000	99	90 - 110	P	11/14/2024	18:12	LB133457
	Thallium	4930	5000	99	90 - 110	P	11/14/2024	18:12	LB133457
	Vanadium	2480	2500	99	90 - 110	P	11/14/2024	18:12	LB133457
	Zinc	2500	2500	100	90 - 110	P	11/14/2024	18:12	LB133457
CCV06	Aluminum	9670	10000	97	90 - 110	P	11/14/2024	19:03	LB133457
	Antimony	4750	5000	95	90 - 110	P	11/14/2024	19:03	LB133457
	Arsenic	4770	5000	95	90 - 110	P	11/14/2024	19:03	LB133457
	Barium	9920	10000	99	90 - 110	P	11/14/2024	19:03	LB133457
	Beryllium	250	250	100	90 - 110	P	11/14/2024	19:03	LB133457
	Cadmium	2400	2500	96	90 - 110	P	11/14/2024	19:03	LB133457
	Calcium	24500	25000	98	90 - 110	P	11/14/2024	19:03	LB133457
	Chromium	971	1000	97	90 - 110	P	11/14/2024	19:03	LB133457
	Cobalt	2400	2500	96	90 - 110	P	11/14/2024	19:03	LB133457
	Copper	1210	1250	96	90 - 110	P	11/14/2024	19:03	LB133457
	Iron	4840	5000	97	90 - 110	P	11/14/2024	19:03	LB133457
	Lead	4820	5000	96	90 - 110	P	11/14/2024	19:03	LB133457
	Magnesium	23900	25000	95	90 - 110	P	11/14/2024	19:03	LB133457
	Manganese	2460	2500	98	90 - 110	P	11/14/2024	19:03	LB133457
	Nickel	2410	2500	96	90 - 110	P	11/14/2024	19:03	LB133457
	Potassium	23800	25000	95	90 - 110	P	11/14/2024	19:03	LB133457
	Selenium	4720	5000	94	90 - 110	P	11/14/2024	19:03	LB133457
	Silver	1210	1250	97	90 - 110	P	11/14/2024	19:03	LB133457
	Sodium	25000	25000	100	90 - 110	P	11/14/2024	19:03	LB133457
	Thallium	4960	5000	99	90 - 110	P	11/14/2024	19:03	LB133457
	Vanadium	2430	2500	97	90 - 110	P	11/14/2024	19:03	LB133457
	Zinc	2420	2500	97	90 - 110	P	11/14/2024	19:03	LB133457
CCV07	Aluminum	9690	10000	97	90 - 110	P	11/14/2024	19:55	LB133457
	Antimony	4850	5000	97	90 - 110	P	11/14/2024	19:55	LB133457
	Arsenic	4840	5000	97	90 - 110	P	11/14/2024	19:55	LB133457
	Barium	9800	10000	98	90 - 110	P	11/14/2024	19:55	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
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	11/14/2024	19:55	LB133457
	Cadmium	2420	2500	97	90 - 110	P	11/14/2024	19:55	LB133457
	Calcium	24300	25000	97	90 - 110	P	11/14/2024	19:55	LB133457
	Chromium	980	1000	98	90 - 110	P	11/14/2024	19:55	LB133457
	Cobalt	2420	2500	97	90 - 110	P	11/14/2024	19:55	LB133457
	Copper	1230	1250	98	90 - 110	P	11/14/2024	19:55	LB133457
	Iron	4820	5000	96	90 - 110	P	11/14/2024	19:55	LB133457
	Lead	4850	5000	97	90 - 110	P	11/14/2024	19:55	LB133457
	Magnesium	23800	25000	95	90 - 110	P	11/14/2024	19:55	LB133457
	Manganese	2420	2500	97	90 - 110	P	11/14/2024	19:55	LB133457
	Nickel	2420	2500	97	90 - 110	P	11/14/2024	19:55	LB133457
	Potassium	24000	25000	96	90 - 110	P	11/14/2024	19:55	LB133457
	Selenium	4850	5000	97	90 - 110	P	11/14/2024	19:55	LB133457
	Silver	1220	1250	97	90 - 110	P	11/14/2024	19:55	LB133457
	Sodium	25300	25000	101	90 - 110	P	11/14/2024	19:55	LB133457
	Thallium	4990	5000	100	90 - 110	P	11/14/2024	19:55	LB133457
	Vanadium	2430	2500	97	90 - 110	P	11/14/2024	19:55	LB133457
	Zinc	2450	2500	98	90 - 110	P	11/14/2024	19:55	LB133457
CCV08	Aluminum	9850	10000	98	90 - 110	P	11/14/2024	20:47	LB133457
	Antimony	4950	5000	99	90 - 110	P	11/14/2024	20:47	LB133457
	Arsenic	4920	5000	98	90 - 110	P	11/14/2024	20:47	LB133457
	Barium	9680	10000	97	90 - 110	P	11/14/2024	20:47	LB133457
	Beryllium	245	250	98	90 - 110	P	11/14/2024	20:47	LB133457
	Cadmium	2450	2500	98	90 - 110	P	11/14/2024	20:47	LB133457
	Calcium	24200	25000	97	90 - 110	P	11/14/2024	20:47	LB133457
	Chromium	1000	1000	100	90 - 110	P	11/14/2024	20:47	LB133457
	Cobalt	2450	2500	98	90 - 110	P	11/14/2024	20:47	LB133457
	Copper	1250	1250	100	90 - 110	P	11/14/2024	20:47	LB133457
	Iron	4860	5000	97	90 - 110	P	11/14/2024	20:47	LB133457
	Lead	4900	5000	98	90 - 110	P	11/14/2024	20:47	LB133457
	Magnesium	24100	25000	96	90 - 110	P	11/14/2024	20:47	LB133457
	Manganese	2380	2500	95	90 - 110	P	11/14/2024	20:47	LB133457
	Nickel	2450	2500	98	90 - 110	P	11/14/2024	20:47	LB133457
	Potassium	24600	25000	98	90 - 110	P	11/14/2024	20:47	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen **SDG No.:** P4822

Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822

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	4960	5000	99	90 - 110	P	11/14/2024	20:47	LB133457
	Silver	1230	1250	99	90 - 110	P	11/14/2024	20:47	LB133457
	Sodium	25500	25000	102	90 - 110	P	11/14/2024	20:47	LB133457
	Thallium	4920	5000	98	90 - 110	P	11/14/2024	20:47	LB133457
	Vanadium	2440	2500	98	90 - 110	P	11/14/2024	20:47	LB133457
	Zinc	2500	2500	100	90 - 110	P	11/14/2024	20:47	LB133457
CCV09	Aluminum	9700	10000	97	90 - 110	P	11/14/2024	22:04	LB133457
	Antimony	4760	5000	95	90 - 110	P	11/14/2024	22:04	LB133457
	Arsenic	4790	5000	96	90 - 110	P	11/14/2024	22:04	LB133457
	Barium	9850	10000	98	90 - 110	P	11/14/2024	22:04	LB133457
	Beryllium	248	250	99	90 - 110	P	11/14/2024	22:04	LB133457
	Cadmium	2420	2500	97	90 - 110	P	11/14/2024	22:04	LB133457
	Calcium	24500	25000	98	90 - 110	P	11/14/2024	22:04	LB133457
	Chromium	980	1000	98	90 - 110	P	11/14/2024	22:04	LB133457
	Cobalt	2410	2500	96	90 - 110	P	11/14/2024	22:04	LB133457
	Copper	1220	1250	98	90 - 110	P	11/14/2024	22:04	LB133457
	Iron	4900	5000	98	90 - 110	P	11/14/2024	22:04	LB133457
	Lead	4830	5000	97	90 - 110	P	11/14/2024	22:04	LB133457
	Magnesium	23900	25000	96	90 - 110	P	11/14/2024	22:04	LB133457
	Manganese	2450	2500	98	90 - 110	P	11/14/2024	22:04	LB133457
	Nickel	2420	2500	97	90 - 110	P	11/14/2024	22:04	LB133457
	Potassium	24300	25000	97	90 - 110	P	11/14/2024	22:04	LB133457
	Selenium	4760	5000	95	90 - 110	P	11/14/2024	22:04	LB133457
	Silver	1210	1250	97	90 - 110	P	11/14/2024	22:04	LB133457
	Sodium	25200	25000	101	90 - 110	P	11/14/2024	22:04	LB133457
	Thallium	4880	5000	98	90 - 110	P	11/14/2024	22:04	LB133457
	Vanadium	2440	2500	98	90 - 110	P	11/14/2024	22:04	LB133457
	Zinc	2440	2500	98	90 - 110	P	11/14/2024	22:04	LB133457
CCV10	Aluminum	9610	10000	96	90 - 110	P	11/14/2024	22:58	LB133457
	Antimony	4780	5000	96	90 - 110	P	11/14/2024	22:58	LB133457
	Arsenic	4790	5000	96	90 - 110	P	11/14/2024	22:58	LB133457
	Barium	9850	10000	98	90 - 110	P	11/14/2024	22:58	LB133457
	Beryllium	245	250	98	90 - 110	P	11/14/2024	22:58	LB133457
	Cadmium	2400	2500	96	90 - 110	P	11/14/2024	22:58	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: BAPS North Bergen SDG No.: P4822
Contract: BAPS03 Lab Code: CHEM Case No.: P4822 SAS No.: P4822
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	24000	25000	96	90 - 110	P	11/14/2024	22:58	LB133457
	Chromium	974	1000	97	90 - 110	P	11/14/2024	22:58	LB133457
	Cobalt	2400	2500	96	90 - 110	P	11/14/2024	22:58	LB133457
	Copper	1220	1250	98	90 - 110	P	11/14/2024	22:58	LB133457
	Iron	4860	5000	97	90 - 110	P	11/14/2024	22:58	LB133457
	Lead	4800	5000	96	90 - 110	P	11/14/2024	22:58	LB133457
	Magnesium	23200	25000	93	90 - 110	P	11/14/2024	22:58	LB133457
	Manganese	2430	2500	97	90 - 110	P	11/14/2024	22:58	LB133457
	Nickel	2410	2500	96	90 - 110	P	11/14/2024	22:58	LB133457
	Potassium	24400	25000	98	90 - 110	P	11/14/2024	22:58	LB133457
	Selenium	4740	5000	95	90 - 110	P	11/14/2024	22:58	LB133457
	Silver	1220	1250	97	90 - 110	P	11/14/2024	22:58	LB133457
	Sodium	25200	25000	101	90 - 110	P	11/14/2024	22:58	LB133457
	Thallium	4850	5000	97	90 - 110	P	11/14/2024	22:58	LB133457
	Vanadium	2420	2500	97	90 - 110	P	11/14/2024	22:58	LB133457
	Zinc	2710	2500	109	90 - 110	P	11/14/2024	22:58	LB133457



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Fax : 908 789 8922

Metals

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CRDL STANDARD FOR AA & ICP

Client: BAPS North Bergen SDG No.: P4822
Contract: BAPS03 Lab Code: CHEM Case No.: P4822 SAS No.: P4822
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	101	40 - 160	CV	11/13/2024	12:30	LB133424
CRI01	Aluminum	98.5	100	98	40 - 160	P	11/14/2024	14:40	LB133457
	Antimony	47.2	50.0	94	40 - 160	P	11/14/2024	14:40	LB133457
	Arsenic	20.6	20.0	103	40 - 160	P	11/14/2024	14:40	LB133457
	Barium	95.9	100	96	40 - 160	P	11/14/2024	14:40	LB133457
	Beryllium	5.63	6.0	94	40 - 160	P	11/14/2024	14:40	LB133457
	Cadmium	6.51	6.0	108	40 - 160	P	11/14/2024	14:40	LB133457
	Calcium	1930	2000	96	40 - 160	P	11/14/2024	14:40	LB133457
	Chromium	9.55	10.0	96	40 - 160	P	11/14/2024	14:40	LB133457
	Cobalt	27.6	30.0	92	40 - 160	P	11/14/2024	14:40	LB133457
	Copper	21.3	20.0	107	40 - 160	P	11/14/2024	14:40	LB133457
	Iron	93.2	100	93	40 - 160	P	11/14/2024	14:40	LB133457
	Lead	11.8	12.0	98	40 - 160	P	11/14/2024	14:40	LB133457
	Magnesium	1920	2000	96	40 - 160	P	11/14/2024	14:40	LB133457
	Manganese	19.6	20.0	98	40 - 160	P	11/14/2024	14:40	LB133457
	Nickel	36.7	40.0	92	40 - 160	P	11/14/2024	14:40	LB133457
	Potassium	1850	2000	92	40 - 160	P	11/14/2024	14:40	LB133457
	Selenium	17.4	20.0	87	40 - 160	P	11/14/2024	14:40	LB133457
	Silver	9.72	10.0	97	40 - 160	P	11/14/2024	14:40	LB133457
	Sodium	1670	2000	83	40 - 160	P	11/14/2024	14:40	LB133457
	Thallium	37.5	40.0	94	40 - 160	P	11/14/2024	14:40	LB133457
	Vanadium	38.4	40.0	96	40 - 160	P	11/14/2024	14:40	LB133457
	Zinc	41.6	40.0	104	40 - 160	P	11/14/2024	14:40	LB133457



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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client:	BAPS North Bergen				SDG No.:	P4822			
Contract:	BAPS03	Lab Code:	CHEM		Case No.:	P4822	SAS No.:	P4822	
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB84	Mercury	0.20	+/-0.20	U	0.20	CV	11/13/2024	12:18	LB133424

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: BAPS North Bergen

SDG No.: P4822

Contract: BAPS03

Lab Code: CHEM

Case No.: P4822

SAS No.: P4822

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB79	Mercury	0.20	+/-0.20	U	0.20	CV	11/13/2024	12:23	LB133424
CCB80	Mercury	0.20	+/-0.20	U	0.20	CV	11/13/2024	13:01	LB133424
CCB81	Mercury	0.20	+/-0.20	U	0.20	CV	11/13/2024	13:39	LB133424
CCB82	Mercury	0.20	+/-0.20	U	0.20	CV	11/13/2024	14:08	LB133424

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>BAPS North Bergen</u>		SDG No.: <u>P4822</u>							
Contract: <u>BAPS03</u>	Lab Code: <u>CHEM</u>	Case No.: <u>P4822</u>	SAS No.: <u>P4822</u>						
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	11/14/2024	14:36	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	14:36	LB133457
	Arsenic	20.0	+/-20.0	U	20.0	P	11/14/2024	14:36	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	14:36	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	14:36	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	14:36	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	14:36	LB133457
	Chromium	10.0	+/-10.0	U	10.0	P	11/14/2024	14:36	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	14:36	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	14:36	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	14:36	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	14:36	LB133457
	Magnesium	2000	+/-2000	U	2000	P	11/14/2024	14:36	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	14:36	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	14:36	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	14:36	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	14:36	LB133457
	Silver	10.0	+/-10.0	U	10.0	P	11/14/2024	14:36	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	14:36	LB133457
	Thallium	40.0	+/-40.0	U	40.0	P	11/14/2024	14:36	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	14:36	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	14:36	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: BAPS North Bergen SDG No.: P4822
Contract: BAPS03 Lab Code: CHEM Case No.: P4822 SAS No.: P4822

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	11/14/2024	15:27	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	15:27	LB133457
	Arsenic	20.0	+/-20.0	U	20.0	P	11/14/2024	15:27	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	15:27	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	15:27	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	15:27	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	15:27	LB133457
	Chromium	10.0	+/-10.0	U	10.0	P	11/14/2024	15:27	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	15:27	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	15:27	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	15:27	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	15:27	LB133457
	Magnesium	2000	+/-2000	U	2000	P	11/14/2024	15:27	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	15:27	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	15:27	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	15:27	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	15:27	LB133457
	Silver	10.0	+/-10.0	U	10.0	P	11/14/2024	15:27	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	15:27	LB133457
	Thallium	40.0	+/-40.0	U	40.0	P	11/14/2024	15:27	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	15:27	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	15:27	LB133457
CCB02	Aluminum	100	+/-100	U	100	P	11/14/2024	15:40	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	15:40	LB133457
	Arsenic	20.0	+/-20.0	U	20.0	P	11/14/2024	15:40	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	15:40	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	15:40	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	15:40	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	15:40	LB133457
	Chromium	10.0	+/-10.0	U	10.0	P	11/14/2024	15:40	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	15:40	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	15:40	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	15:40	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	15:40	LB133457
	Magnesium	2000	+/-2000	U	2000	P	11/14/2024	15:40	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	15:40	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	15:40	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	15:40	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	15:40	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: BAPS North Bergen		SDG No.: P4822							
Contract: BAPS03	Lab Code: CHEM	Case No.: P4822	SAS No.: P4822						
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	11/14/2024	15:40	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	15:40	LB133457
	Thallium	40.0	+/-40.0	U	40.0	P	11/14/2024	15:40	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	15:40	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	15:40	LB133457
CCB03	Aluminum	100	+/-100	U	100	P	11/14/2024	16:31	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	16:31	LB133457
	Arsenic	20.0	+/-20.0	U	20.0	P	11/14/2024	16:31	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	16:31	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	16:31	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	16:31	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	16:31	LB133457
	Chromium	10.0	+/-10.0	U	10.0	P	11/14/2024	16:31	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	16:31	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	16:31	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	16:31	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	16:31	LB133457
	Magnesium	2000	+/-2000	U	2000	P	11/14/2024	16:31	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	16:31	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	16:31	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	16:31	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	16:31	LB133457
	Silver	10.0	+/-10.0	U	10.0	P	11/14/2024	16:31	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	16:31	LB133457
	Thallium	40.0	+/-40.0	U	40.0	P	11/14/2024	16:31	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	16:31	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	16:31	LB133457
CCB04	Aluminum	100	+/-100	U	100	P	11/14/2024	17:27	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	17:27	LB133457
	Arsenic	20.0	+/-20.0	U	20.0	P	11/14/2024	17:27	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	17:27	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	17:27	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	17:27	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	17:27	LB133457
	Chromium	10.0	+/-10.0	U	10.0	P	11/14/2024	17:27	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	17:27	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	17:27	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	17:27	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	17:27	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>BAPS North Bergen</u>		SDG No.: <u>P4822</u>							
Contract: <u>BAPS03</u>	Lab Code: <u>CHEM</u>	Case No.: <u>P4822</u>	SAS No.: <u>P4822</u>						
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	11/14/2024	17:27	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	17:27	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	17:27	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	17:27	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	17:27	LB133457
	Silver	10.0	+/-10.0	U	10.0	P	11/14/2024	17:27	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	17:27	LB133457
	Thallium	40.0	+/-40.0	U	40.0	P	11/14/2024	17:27	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	17:27	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	17:27	LB133457
CCB05	Aluminum	100	+/-100	U	100	P	11/14/2024	18:17	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	18:17	LB133457
	Arsenic	20.0	+/-20.0	U	20.0	P	11/14/2024	18:17	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	18:17	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	18:17	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	18:17	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	18:17	LB133457
	Chromium	10.0	+/-10.0	U	10.0	P	11/14/2024	18:17	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	18:17	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	18:17	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	18:17	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	18:17	LB133457
	Magnesium	2000	+/-2000	U	2000	P	11/14/2024	18:17	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	18:17	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	18:17	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	18:17	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	18:17	LB133457
	Silver	10.0	+/-10.0	U	10.0	P	11/14/2024	18:17	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	18:17	LB133457
	Thallium	40.0	+/-40.0	U	40.0	P	11/14/2024	18:17	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	18:17	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	18:17	LB133457
CCB06	Aluminum	100	+/-100	U	100	P	11/14/2024	19:07	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	19:07	LB133457
	Arsenic	20.0	+/-20.0	U	20.0	P	11/14/2024	19:07	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	19:07	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	19:07	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	19:07	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	19:07	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: BAPS North Bergen		SDG No.: P4822							
Contract: BAPS03	Lab Code: CHEM	Case No.: P4822	SAS No.: P4822						
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	11/14/2024	19:07	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	19:07	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	19:07	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	19:07	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	19:07	LB133457
	Magnesium	2000	+/-2000	U	2000	P	11/14/2024	19:07	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	19:07	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	19:07	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	19:07	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	19:07	LB133457
	Silver	10.0	+/-10.0	U	10.0	P	11/14/2024	19:07	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	19:07	LB133457
	Thallium	40.0	+/-40.0	U	40.0	P	11/14/2024	19:07	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	19:07	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	19:07	LB133457
CCB07	Aluminum	100	+/-100	U	100	P	11/14/2024	19:59	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	19:59	LB133457
	Arsenic	20.0	+/-20.0	U	20.0	P	11/14/2024	19:59	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	19:59	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	19:59	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	19:59	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	19:59	LB133457
	Chromium	10.0	+/-10.0	U	10.0	P	11/14/2024	19:59	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	19:59	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	19:59	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	19:59	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	19:59	LB133457
	Magnesium	2000	+/-2000	U	2000	P	11/14/2024	19:59	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	19:59	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	19:59	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	19:59	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	19:59	LB133457
	Silver	10.0	+/-10.0	U	10.0	P	11/14/2024	19:59	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	19:59	LB133457
	Thallium	40.0	+/-40.0	U	40.0	P	11/14/2024	19:59	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	19:59	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	19:59	LB133457
CCB08	Aluminum	100	+/-100	U	100	P	11/14/2024	21:42	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	21:42	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>BAPS North Bergen</u>		SDG No.: <u>P4822</u>							
Contract: <u>BAPS03</u>	Lab Code: <u>CHEM</u>	Case No.: <u>P4822</u>	SAS No.: <u>P4822</u>						
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	11/14/2024	21:42	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	21:42	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	21:42	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	21:42	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	21:42	LB133457
	Chromium	10.0	+/-10.0	U	10.0	P	11/14/2024	21:42	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	21:42	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	21:42	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	21:42	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	21:42	LB133457
	Magnesium	2000	+/-2000	U	2000	P	11/14/2024	21:42	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	21:42	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	21:42	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	21:42	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	21:42	LB133457
	Silver	10.0	+/-10.0	U	10.0	P	11/14/2024	21:42	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	21:42	LB133457
	Thallium	40.0	+/-40.0	U	40.0	P	11/14/2024	21:42	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	21:42	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	21:42	LB133457
CCB09	Aluminum	100	+/-100	U	100	P	11/14/2024	22:08	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	22:08	LB133457
	Arsenic	20.0	+/-20.0	U	20.0	P	11/14/2024	22:08	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	22:08	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	22:08	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	22:08	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	22:08	LB133457
	Chromium	10.0	+/-10.0	U	10.0	P	11/14/2024	22:08	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	22:08	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	22:08	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	22:08	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	22:08	LB133457
	Magnesium	2000	+/-2000	U	2000	P	11/14/2024	22:08	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	22:08	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	22:08	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	22:08	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	22:08	LB133457
	Silver	10.0	+/-10.0	U	10.0	P	11/14/2024	22:08	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	22:08	LB133457

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>BAPS North Bergen</u>		SDG No.: <u>P4822</u>							
Contract: <u>BAPS03</u>	Lab Code: <u>CHEM</u>	Case No.: <u>P4822</u>	SAS No.: <u>P4822</u>						
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	11/14/2024	22:08	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	22:08	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	22:08	LB133457
CCB10	Aluminum	100	+/-100	U	100	P	11/14/2024	23:03	LB133457
	Antimony	50.0	+/-50.0	U	50.0	P	11/14/2024	23:03	LB133457
	Arsenic	20.0	+/-20.0	U	20.0	P	11/14/2024	23:03	LB133457
	Barium	100	+/-100	U	100	P	11/14/2024	23:03	LB133457
	Beryllium	6.00	+/-6.00	U	6.00	P	11/14/2024	23:03	LB133457
	Cadmium	6.00	+/-6.00	U	6.00	P	11/14/2024	23:03	LB133457
	Calcium	2000	+/-2000	U	2000	P	11/14/2024	23:03	LB133457
	Chromium	10.0	+/-10.0	U	10.0	P	11/14/2024	23:03	LB133457
	Cobalt	30.0	+/-30.0	U	30.0	P	11/14/2024	23:03	LB133457
	Copper	20.0	+/-20.0	U	20.0	P	11/14/2024	23:03	LB133457
	Iron	100	+/-100	U	100	P	11/14/2024	23:03	LB133457
	Lead	12.0	+/-12.0	U	12.0	P	11/14/2024	23:03	LB133457
	Magnesium	2000	+/-2000	U	2000	P	11/14/2024	23:03	LB133457
	Manganese	20.0	+/-20.0	U	20.0	P	11/14/2024	23:03	LB133457
	Nickel	40.0	+/-40.0	U	40.0	P	11/14/2024	23:03	LB133457
	Potassium	2000	+/-2000	U	2000	P	11/14/2024	23:03	LB133457
	Selenium	20.0	+/-20.0	U	20.0	P	11/14/2024	23:03	LB133457
	Silver	10.0	+/-10.0	U	10.0	P	11/14/2024	23:03	LB133457
	Sodium	2000	+/-2000	U	2000	P	11/14/2024	23:03	LB133457
	Thallium	40.0	+/-40.0	U	40.0	P	11/14/2024	23:03	LB133457
	Vanadium	40.0	+/-40.0	U	40.0	P	11/14/2024	23:03	LB133457
	Zinc	40.0	+/-40.0	U	40.0	P	11/14/2024	23:03	LB133457

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: BAPS North Bergen

SDG No.: P4822

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB164947BL		SOLID		Batch Number:	PB164947		Prep Date:	11/13/2024	
	Mercury	0.013	<0.013	U	0.013	CV	11/13/2024	12:40	LB133424

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: BAPS North Bergen

SDG No.: P4822

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB164935BL	SOLID			Batch Number:	PB164935		Prep Date:	11/13/2024	
	Aluminum	4.27	<4.27	U	4.27	P	11/14/2024	15:52	LB133457
	Antimony	2.14	<2.14	U	2.14	P	11/14/2024	15:52	LB133457
	Arsenic	0.86	<0.86	U	0.86	P	11/14/2024	15:52	LB133457
	Barium	4.27	<4.27	U	4.27	P	11/14/2024	15:52	LB133457
	Beryllium	0.26	<0.26	U	0.26	P	11/14/2024	15:52	LB133457
	Cadmium	0.26	<0.26	U	0.26	P	11/14/2024	15:52	LB133457
	Calcium	85.5	<85.5	U	85.5	P	11/14/2024	15:52	LB133457
	Chromium	0.43	<0.43	U	0.43	P	11/14/2024	15:52	LB133457
	Cobalt	1.28	<1.28	U	1.28	P	11/14/2024	15:52	LB133457
	Copper	0.86	<0.86	U	0.86	P	11/14/2024	15:52	LB133457
	Iron	4.27	<4.27	U	4.27	P	11/14/2024	15:52	LB133457
	Lead	0.51	<0.51	U	0.51	P	11/14/2024	15:52	LB133457
	Magnesium	85.5	<85.5	U	85.5	P	11/14/2024	15:52	LB133457
	Manganese	0.86	<0.86	U	0.86	P	11/14/2024	15:52	LB133457
	Nickel	1.71	<1.71	U	1.71	P	11/14/2024	15:52	LB133457
	Potassium	85.5	<85.5	U	85.5	P	11/14/2024	15:52	LB133457
	Selenium	0.86	<0.86	U	0.86	P	11/14/2024	15:52	LB133457
	Silver	0.43	<0.43	U	0.43	P	11/14/2024	15:52	LB133457
	Sodium	85.5	<85.5	U	85.5	P	11/14/2024	15:52	LB133457
	Thallium	1.71	<1.71	U	1.71	P	11/14/2024	15:52	LB133457
	Vanadium	1.71	<1.71	U	1.71	P	11/14/2024	15:52	LB133457
	Zinc	1.71	<1.71	U	1.71	P	11/14/2024	15:52	LB133457

Metals
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INTERFERENCE CHECK SAMPLE

Client: <u>BAPS North Bergen</u>	SDG No.: <u>P4822</u>
Contract: <u>BAPS03</u>	Lab Code: <u>CHEM</u>
ICS Source: <u>EPA</u>	Case No.: <u>P4822</u>
	SAS No.: <u>P4822</u>
	Instrument ID: <u>P4</u>

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	257000	255000	101	216000	294000	11/14/2024	14:54	LB133457
	Antimony	-0.36			-50	50	11/14/2024	14:54	LB133457
	Arsenic	-1.10			-20	20	11/14/2024	14:54	LB133457
	Barium	3.24	6.0	54	-94	106	11/14/2024	14:54	LB133457
	Beryllium	1.25			-6	6	11/14/2024	14:54	LB133457
	Cadmium	6.64	1.0	664	-5	7	11/14/2024	14:54	LB133457
	Calcium	244000	245000	100	208000	282000	11/14/2024	14:54	LB133457
	Chromium	55.5	52.0	107	42	62	11/14/2024	14:54	LB133457
	Cobalt	2.07			-30	30	11/14/2024	14:54	LB133457
	Copper	-4.72	2.0	236	-18	22	11/14/2024	14:54	LB133457
	Iron	98700	101000	98	85600	116500	11/14/2024	14:54	LB133457
	Lead	8.61			-12	12	11/14/2024	14:54	LB133457
	Magnesium	271000	255000	106	216000	294000	11/14/2024	14:54	LB133457
	Manganese	5.69	7.0	81	-13	27	11/14/2024	14:54	LB133457
	Nickel	2.90	2.0	145	-38	42	11/14/2024	14:54	LB133457
	Potassium	24.4			0	0	11/14/2024	14:54	LB133457
	Selenium	-16.4			-20	20	11/14/2024	14:54	LB133457
	Silver	2.63			-10	10	11/14/2024	14:54	LB133457
	Sodium	34.7			0	0	11/14/2024	14:54	LB133457
	Thallium	12.7			-40	40	11/14/2024	14:54	LB133457
	Vanadium	6.61			-40	40	11/14/2024	14:54	LB133457
	Zinc	6.48			-40	40	11/14/2024	14:54	LB133457
ICSAB01	Aluminum	271000	247000	110	209000	285000	11/14/2024	15:18	LB133457
	Antimony	629	618	102	525	711	11/14/2024	15:18	LB133457
	Arsenic	117	104	112	88.4	120	11/14/2024	15:18	LB133457
	Barium	535	537	100	437	637	11/14/2024	15:18	LB133457
	Beryllium	521	495	105	420	570	11/14/2024	15:18	LB133457
	Cadmium	1020	972	105	826	1120	11/14/2024	15:18	LB133457
	Calcium	254000	235000	108	199000	271000	11/14/2024	15:18	LB133457
	Chromium	568	542	105	460	624	11/14/2024	15:18	LB133457
	Cobalt	516	476	108	404	548	11/14/2024	15:18	LB133457
	Copper	493	511	96	434	588	11/14/2024	15:18	LB133457
	Iron	103000	99300	104	84400	114500	11/14/2024	15:18	LB133457
	Lead	56.9	49.0	116	37	61	11/14/2024	15:18	LB133457
	Magnesium	279000	248000	112	210000	286000	11/14/2024	15:18	LB133457
	Manganese	515	507	102	430	584	11/14/2024	15:18	LB133457
	Nickel	1020	954	107	810	1100	11/14/2024	15:18	LB133457
	Potassium	-0.81			0	0	11/14/2024	15:18	LB133457
	Selenium	35.8	46.0	78	26	66	11/14/2024	15:18	LB133457
	Silver	206	201	102	170	232	11/14/2024	15:18	LB133457
	Sodium	-5.35			0	0	11/14/2024	15:18	LB133457
	Thallium	103	108	95	68	148	11/14/2024	15:18	LB133457

Metals

- 4 -

INTERFERENCE CHECK SAMPLE

Client: BAPS North Bergen **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
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	511	491	104	417	565	11/14/2024	15:18	LB133457
	Zinc	852	952	90	809	1095	11/14/2024	15:18	LB133457



METAL

QC

DATA

metals
- 5a -
MATRIX SPIKE SUMMARY

client: BAPS North Bergen **level:** low **sdg no.:** P4822
contract: BAPS03 **lab code:** CHEM **case no.:** P4822 **sas no.:** P4822
matrix: Solid **sample id:** P4807-01 **client id:** TP-7MS
Percent Solids for Sample: 89.7 **Spiked ID:** P4807-01MS **Percent Solids for Spike Sample:** 89.7

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.25		0.014	U	0.28	89		CV

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>BAPS North Bergen</u>	level:	<u>low</u>	sdg no.:	<u>P4822</u>		
contract:	<u>BAPS03</u>	lab code:	<u>CHEM</u>	case no.:	<u>P4822</u>	sas no.:	<u>P4822</u>
matrix:	<u>Solid</u>	sample id:	<u>P4807-01</u>	client id:	<u>TP-7MSD</u>		
Percent Solids for Sample:	89.7	Spiked ID:	P4807-01MSD	Percent Solids for Spike Sample:	89.7		

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.27		0.014	U	0.29	93		CV

metals
- 5a -
MATRIX SPIKE SUMMARY

client: <u>BAPS North Bergen</u>	level: <u>low</u>	sdg no.: <u>P4822</u>
contract: <u>BAPS03</u>	lab code: <u>CHEM</u>	case no.: <u>P4822</u> sas no.: <u>P4822</u>
matrix: <u>Solid</u>	sample id: <u>P4822-02</u>	client id: <u>SOIL-1MS</u>
Percent Solids for Sample: 92.4	Spiked ID: P4822-02MS	Percent Solids for Spike Sample: 92.4

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	7120		6920		95.4	209		P
Antimony	mg/Kg	75 - 125	28.6		2.33	U	38.1	75		P
Arsenic	mg/Kg	75 - 125	35.7		6.16		38.1	78		P
Barium	mg/Kg	75 - 125	50.8		42.0		9.5	93		P
Beryllium	mg/Kg	75 - 125	7.68		0.64		9.5	74	N	P
Cadmium	mg/Kg	75 - 125	10.5		1.72		9.5	92		P
Calcium	mg/Kg	75 - 125	2870		2800		47.7	142		P
Chromium	mg/Kg	75 - 125	30.7		16.6		19.1	74	N	P
Cobalt	mg/Kg	75 - 125	17.6		8.64		9.5	94		P
Copper	mg/Kg	75 - 125	36.5		26.0		14.3	73	N	P
Iron	mg/Kg	75 - 125	11800		11700		140	24		P
Lead	mg/Kg	75 - 125	115		73.4		47.7	88		P
Magnesium	mg/Kg	75 - 125	5030		4900		95.4	137		P
Manganese	mg/Kg	75 - 125	319		305		9.5	145		P
Nickel	mg/Kg	75 - 125	36.0		13.9		23.8	93		P
Potassium	mg/Kg	75 - 125	2870		2500		480	77		P
Selenium	mg/Kg	75 - 125	67.5		0.93	U	95.4	71	N	P
Silver	mg/Kg	75 - 125	3.17		0.42	J	3.6	76		P
Sodium	mg/Kg	75 - 125	252		140		140	80		P
Thallium	mg/Kg	75 - 125	80.9		1.87	U	95.4	85		P
Vanadium	mg/Kg	75 - 125	40.9		29.4		14.3	81		P
Zinc	mg/Kg	75 - 125	134		128		9.5	66		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>BAPS North Bergen</u>	level:	<u>low</u>	sdg no.:	<u>P4822</u>
contract:	<u>BAPS03</u>	lab code:	<u>CHEM</u>	case no.:	<u>P4822</u>
matrix:	<u>Solid</u>	sample id:	<u>P4822-02</u>	client id:	<u>SOIL-1MSD</u>
Percent Solids for Sample:	92.4	Spiked ID:	P4822-02MSD	Percent Solids for Spike Sample:	92.4

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	6720		6920		92.5	-210		P
Antimony	mg/Kg	75 - 125	27.9		2.33	U	37.0	75		P
Arsenic	mg/Kg	75 - 125	34.6		6.16		37.0	77		P
Barium	mg/Kg	75 - 125	47.9		42.0		9.3	63		P
Beryllium	mg/Kg	75 - 125	7.38		0.64		9.3	72	N	P
Cadmium	mg/Kg	75 - 125	10.1		1.72		9.3	90		P
Calcium	mg/Kg	75 - 125	2710		2800		46.3	-201		P
Chromium	mg/Kg	75 - 125	29.3		16.6		18.5	69	N	P
Cobalt	mg/Kg	75 - 125	16.9		8.64		9.3	89		P
Copper	mg/Kg	75 - 125	35.2		26.0		13.9	66	N	P
Iron	mg/Kg	75 - 125	11200		11700		140	-400		P
Lead	mg/Kg	75 - 125	111		73.4		46.3	81		P
Magnesium	mg/Kg	75 - 125	4770		4900		92.5	-144		P
Manganese	mg/Kg	75 - 125	300		305		9.3	-55		P
Nickel	mg/Kg	75 - 125	34.6		13.9		23.1	90		P
Potassium	mg/Kg	75 - 125	2730		2500		460	50		P
Selenium	mg/Kg	75 - 125	65.9		0.93	U	92.5	71	N	P
Silver	mg/Kg	75 - 125	3.06		0.42	J	3.5	75		P
Sodium	mg/Kg	75 - 125	239		140		140	71	N	P
Thallium	mg/Kg	75 - 125	78.4		1.87	U	92.5	85		P
Vanadium	mg/Kg	75 - 125	38.8		29.4		13.9	68	N	P
Zinc	mg/Kg	75 - 125	128		128		9.3	-2		P

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: BAPS North Bergen **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
Matrix: Solid **Level:** LOW **Client ID:** SOIL-1A
Sample ID: P4822-02 **Spiked ID:** P4822-02A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/Kg	75 - 125	7.44		0.64		9.30	73		P
Chromium	mg/Kg	75 - 125	29.8		16.6		18.7	71		P
Copper	mg/Kg	75 - 125	35.7		26.0		14.0	69		P
Selenium	mg/Kg	75 - 125	67.2		0.93	U	93.3	72		P
Sodium	mg/Kg	75 - 125	242		140		140	73		P
Vanadium	mg/Kg	75 - 125	39.0		29.4		14.0	69		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: BAPS North Bergen **Level:** LOW **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
Matrix: Solid **Sample ID:** P4807-01 **Client ID:** TP-7DUP
Percent Solids for Sample: 89.7 **Duplicate ID** P4807-01DUP **Percent Solids for Spike Sample:** 89.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.014	U	0.014	U			CV

Metals

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DUPLICATE SAMPLE SUMMARY

Client: BAPS North Bergen **Level:** LOW **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
Matrix: Solid **Sample ID:** P4807-01MS **Client ID:** TP-7MSD
Percent Solids for Sample: 89.7 **Duplicate ID** P4807-01MSD **Percent Solids for Spike Sample:** 89.7

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

Metals

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DUPLICATE SAMPLE SUMMARY

Client: BAPS North Bergen **Level:** LOW **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
Matrix: Solid **Sample ID:** P4822-02 **Client ID:** SOIL-1DUP
Percent Solids for Sample: 92.4 **Duplicate ID** P4822-02DUP **Percent Solids for Spike Sample:** 92.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	6920		6420		7		P
Antimony	mg/Kg	20	2.33	U	2.22	U			P
Arsenic	mg/Kg	20	6.16		5.84		5		P
Barium	mg/Kg	20	42.0		39.4		6		P
Beryllium	mg/Kg	20	0.64		0.60		8		P
Cadmium	mg/Kg	20	1.72		1.65		4		P
Calcium	mg/Kg	20	2800		2590		8		P
Chromium	mg/Kg	20	16.6		15.3		8		P
Cobalt	mg/Kg	20	8.64		8.08		7		P
Copper	mg/Kg	20	26.0		24.7		5		P
Iron	mg/Kg	20	11700		10800		8		P
Lead	mg/Kg	20	73.4		69.1		6		P
Magnesium	mg/Kg	20	4900		4540		8		P
Manganese	mg/Kg	20	305		284		7		P
Nickel	mg/Kg	20	13.9		13.0		7		P
Potassium	mg/Kg	20	2500		2310		8		P
Selenium	mg/Kg	20	0.93	U	0.89	U			P
Silver	mg/Kg	20	0.42	J	0.38	J	11		P
Sodium	mg/Kg	20	140		126		11		P
Thallium	mg/Kg	20	1.87	U	1.77	U			P
Vanadium	mg/Kg	20	29.4		27.4		7		P
Zinc	mg/Kg	20	128		117		9		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: BAPS North Bergen **Level:** LOW **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822
Matrix: Solid **Sample ID:** P4822-02MS **Client ID:** SOIL-1MSD
Percent Solids for Sample: 92.4 **Duplicate ID** P4822-02MSD **Percent Solids for Spike Sample:** 92.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	7120		6720		6		P
Antimony	mg/Kg	20	28.6		27.9		2		P
Arsenic	mg/Kg	20	35.7		34.6		3		P
Barium	mg/Kg	20	50.8		47.9		6		P
Beryllium	mg/Kg	20	7.68		7.38		4		P
Cadmium	mg/Kg	20	10.5		10.1		3		P
Calcium	mg/Kg	20	2870		2710		6		P
Chromium	mg/Kg	20	30.7		29.3		5		P
Cobalt	mg/Kg	20	17.6		16.9		4		P
Copper	mg/Kg	20	36.5		35.2		4		P
Iron	mg/Kg	20	11800		11200		5		P
Lead	mg/Kg	20	115		111		4		P
Magnesium	mg/Kg	20	5030		4770		5		P
Manganese	mg/Kg	20	319		300		6		P
Nickel	mg/Kg	20	36.0		34.6		4		P
Potassium	mg/Kg	20	2870		2730		5		P
Selenium	mg/Kg	20	67.5		65.9		2		P
Silver	mg/Kg	20	3.17		3.06		4		P
Sodium	mg/Kg	20	252		239		5		P
Thallium	mg/Kg	20	80.9		78.4		3		P
Vanadium	mg/Kg	20	40.9		38.8		5		P
Zinc	mg/Kg	20	134		128		5		P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: BAPS North Bergen **SDG No.:** P4822
Contract: BAPS03 **Lab Code:** CHEM **Case No.:** P4822 **SAS No.:** P4822

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB164935BS							
Aluminum	mg/Kg	85.5	78.7		92	80 - 120	P
Antimony	mg/Kg	34.2	30.5		89	80 - 120	P
Arsenic	mg/Kg	34.2	31.1		91	80 - 120	P
Barium	mg/Kg	8.5	7.95		94	80 - 120	P
Beryllium	mg/Kg	8.5	8.23		97	80 - 120	P
Cadmium	mg/Kg	8.5	7.58		89	80 - 120	P
Calcium	mg/Kg	42.7	41.7	J	98	80 - 120	P
Chromium	mg/Kg	17.1	15.9		93	80 - 120	P
Cobalt	mg/Kg	8.5	7.72		91	80 - 120	P
Copper	mg/Kg	12.8	12.2		95	80 - 120	P
Iron	mg/Kg	130	117		90	80 - 120	P
Lead	mg/Kg	42.7	38.6		90	80 - 120	P
Magnesium	mg/Kg	85.5	78.7	J	92	80 - 120	P
Manganese	mg/Kg	8.5	8.22		97	80 - 120	P
Nickel	mg/Kg	21.4	19.4		91	80 - 120	P
Potassium	mg/Kg	430	375		87	80 - 120	P
Selenium	mg/Kg	85.5	75.6		88	80 - 120	P
Silver	mg/Kg	3.2	2.94		92	80 - 120	P
Sodium	mg/Kg	130	105		81	80 - 120	P
Thallium	mg/Kg	85.5	79.5		93	80 - 120	P
Vanadium	mg/Kg	12.8	12.0		94	80 - 120	P
Zinc	mg/Kg	8.5	8.21		97	80 - 120	P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: BAPS North Bergen

SDG No.: P4822

Contract: BAPS03

Lab Code: CHEM

Case No.: P4822

SAS No.: P4822

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB164947BS Mercury	mg/Kg	0.27	0.24		87	80 - 120	CV

Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

TP-7L

Lab Name: Chemtech Consulting Group

Contract: BAPS03

Lab Code: CHEM

Lb No.: lb133424

Lab Sample ID : P4807-01L

SDG No.: P4822

Matrix (soil/water): Solid

Level (low/med): LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Differ- ence	Q	M
Mercury	0.014 U	0.070 U			CV

Metals
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ICP SERIAL DILUTIONS

SAMPLE NO.

SOIL-1L

Lab Name: Chemtech Consulting Group

Contract: BAPS03

Lab Code: CHEM Lb No.: lb133457 Lab Sample ID : P4822-02L SDG No.: P4822

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

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ-ence	Q	M
	C		C				
Aluminum	6920		7840		13		P
Antimony	2.33	U	11.7	U			P
Arsenic	6.16		7.01		14		P
Barium	42.0		48.0		14		P
Beryllium	0.64		0.82	J	28		P
Cadmium	1.72		1.18	J	31		P
Calcium	2800		3370		20		P
Chromium	16.6		20.3		22		P
Cobalt	8.64		8.68		0		P
Copper	26.0		34.1		31		P
Iron	11700		14000		19		P
Lead	73.4		79.0		7		P
Magnesium	4900		5680		16		P
Manganese	305		370		21		P
Nickel	13.9		14.3		3		P
Potassium	2500		2750		10		P
Selenium	0.93	U	4.66	U			P
Silver	0.42	J	0.45	J	6		P
Sodium	140		466	U	100.0		P
Thallium	1.87	U	9.33	U			P
Vanadium	29.4		34.7		18		P
Zinc	128		158		23		P



METAL PREPARATION & INSTRUMENT DATA

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: BAPS North Bergen

SDG No.: P4822

Contract: BAPS03

Lab Code: CHEM

Case No.: P4822

SAS No.: P4822

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

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: BAPS North Bergen

SDG No.: P4822

Contract: BAPS03

Lab Code: CHEM

Case No.: P4822

SAS No.: P4822

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

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: BAPS North Bergen

SDG No.: P4822

Contract: BAPS03

Lab Code: CHEM

Case No.: P4822

SAS No.: P4822

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

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: BAPS North Bergen

SDG No.: P4822

Contract: BAPS03

Lab Code: CHEM

Case No.: P4822

SAS No.: P4822

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

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: BAPS North Bergen SDG No.: P4822
 Contract: BAPS03 Lab Code: CHEM Case No.: P4822 SAS No.: P4822
 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

Metals

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SAMPLE PREPARATION SUMMARY

Client:	<u>BAPS North Bergen</u>	SDG No.:	<u>P4822</u>
Contract:	<u>BAPS03</u>	Lab Code:	<u>CHEM</u>
		Method:	<u></u>
		Case No.:	<u>P4822</u>
		SAS No.:	<u>P4822</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB164935							
P4822-02	SOIL-1	SAM	SOLID	11/13/2024	2.32	100.0	92.40
P4822-02DUP	SOIL-1DUP	DUP	SOLID	11/13/2024	2.44	100.0	92.40
P4822-02MS	SOIL-1MS	MS	SOLID	11/13/2024	2.27	100.0	92.40
P4822-02MSD	SOIL-1MSD	MSD	SOLID	11/13/2024	2.34	100.0	92.40
P4822-04	SOIL-2	SAM	SOLID	11/13/2024	2.43	100.0	89.70
P4822-06	SOIL-3	SAM	SOLID	11/13/2024	2.42	100.0	91.40
P4822-08	SOIL-4	SAM	SOLID	11/13/2024	2.37	100.0	92.90
P4822-10	SOIL-5	SAM	SOLID	11/13/2024	2.39	100.0	91.50
P4822-12	SOIL-6	SAM	SOLID	11/13/2024	2.41	100.0	91.30
PB164935BL	PB164935BL	MB	SOLID	11/13/2024	2.34	100.0	100.00
PB164935BS	PB164935BS	LCS	SOLID	11/13/2024	2.34	100.0	100.00

Metals

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SAMPLE PREPARATION SUMMARY

Client:	<u>BAPS North Bergen</u>	SDG No.:	<u>P4822</u>
Contract:	<u>BAPS03</u>	Lab Code:	<u>CHEM</u>
		Method:	<u></u>
		Case No.:	<u>P4822</u>
		SAS No.:	<u>P4822</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB164947							
P4807-01DUP	TP-7DUP	DUP	SOLID	11/13/2024	0.55	35.0	89.70
P4807-01MS	TP-7MS	MS	SOLID	11/13/2024	0.56	35.0	89.70
P4807-01MSD	TP-7MSD	MSD	SOLID	11/13/2024	0.53	35.0	89.70
P4822-02	SOIL-1	SAM	SOLID	11/13/2024	0.54	35.0	92.40
P4822-04	SOIL-2	SAM	SOLID	11/13/2024	0.56	35.0	89.70
P4822-06	SOIL-3	SAM	SOLID	11/13/2024	0.52	35.0	91.40
P4822-08	SOIL-4	SAM	SOLID	11/13/2024	0.57	35.0	92.90
P4822-10	SOIL-5	SAM	SOLID	11/13/2024	0.54	35.0	91.50
P4822-12	SOIL-6	SAM	SOLID	11/13/2024	0.52	35.0	91.30
PB164947BL	PB164947BL	MB	SOLID	11/13/2024	0.54	35.0	100.00
PB164947BS	PB164947BS	LCS	SOLID	11/13/2024	0.52	35.0	100.00

metals
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ANALYSIS RUN LOG

Client: BAPS North Bergen **Contract:** BAPS03

Lab code: CHEM **Case no.:** P4822 **Sas no.:** P4822 **Sdg no.:** P4822

Instrument id number: **Method:** **Run number:** LB133424

Start date: 11/13/2024 **End date:** 11/13/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1153	HG
S0.2	S0.2	1	1155	HG
S2.5	S2.5	1	1157	HG
S5	S5	1	1200	HG
S7.5	S7.5	1	1202	HG
S10	S10	1	1211	HG
ICV84	ICV84	1	1214	HG
ICB84	ICB84	1	1218	HG
CCV79	CCV79	1	1221	HG
CCB79	CCB79	1	1223	HG
CRA	CRA	1	1230	HG
P4807-01DUP	TP-7DUP	1	1247	HG
P4807-01MS	TP-7MS	1	1249	HG
P4807-01MSD	TP-7MSD	1	1251	HG
CCV80	CCV80	1	1258	HG
CCB80	CCB80	1	1301	HG
P4822-02	SOIL-1	1	1321	HG
P4822-04	SOIL-2	1	1323	HG
CCV81	CCV81	1	1334	HG
CCB81	CCB81	1	1339	HG
P4822-06	SOIL-3	1	1341	HG
P4822-08	SOIL-4	1	1343	HG
P4822-10	SOIL-5	1	1346	HG
P4822-12	SOIL-6	1	1348	HG
P4807-01L	TP-7L	5	1353	HG
CCV82	CCV82	1	1405	HG
CCB82	CCB82	1	1408	HG

metals
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ANALYSIS RUN LOG

Client: BAPS North Bergen **Contract:** BAPS03

Lab code: CHEM **Case no.:** P4822 **Sas no.:** P4822 **Sdg no.:** P4822

Instrument id number: **Method:** **Run number:** LB133457

Start date: 11/14/2024 **End date:** 11/14/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1333	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	1337	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	1342	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	1346	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	1350	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	1354	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	1358	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	1410	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	1436	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	1440	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	1454	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	1518	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	1522	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	1527	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	1535	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	1540	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB164935BL	PB164935BL	1	1552	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB164935BS	PB164935BS	1	1557	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	1627	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	1631	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	1723	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	1727	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4822-02	SOIL-1	1	1800	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4822-02DUP	SOIL-1DUP	1	1804	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4822-02L	SOIL-1L	5	1808	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	1812	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	1817	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4822-02MS	SOIL-1MS	1	1821	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4822-02MSD	SOIL-1MSD	1	1825	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4822-02A	SOIL-1A	1	1829	Be,Cr,Cu,Na,Se,V
P4822-04	SOIL-2	1	1833	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4822-06	SOIL-3	1	1837	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4822-08	SOIL-4	1	1841	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4822-10	SOIL-5	1	1845	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P4822-12	SOIL-6	1	1850	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	1903	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	1907	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	1955	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	1959	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	2047	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	2142	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

metals
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ANALYSIS RUN LOG

Client: BAPS North Bergen **Contract:** BAPS03

Lab code: CHEM **Case no.:** P4822 **Sas no.:** P4822 **Sdg no.:** P4822

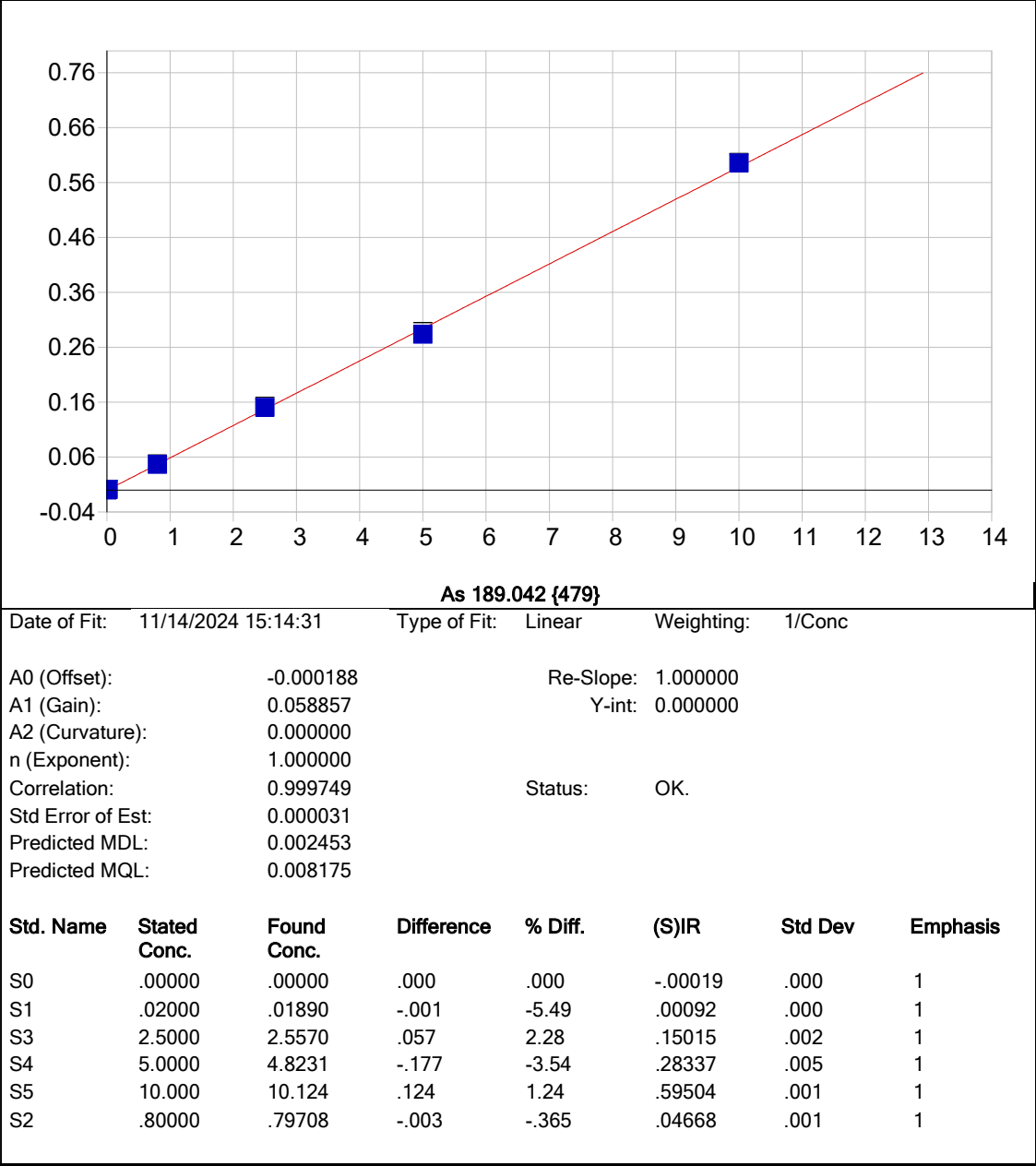
Instrument id number: **Method:** **Run number:** LB133457

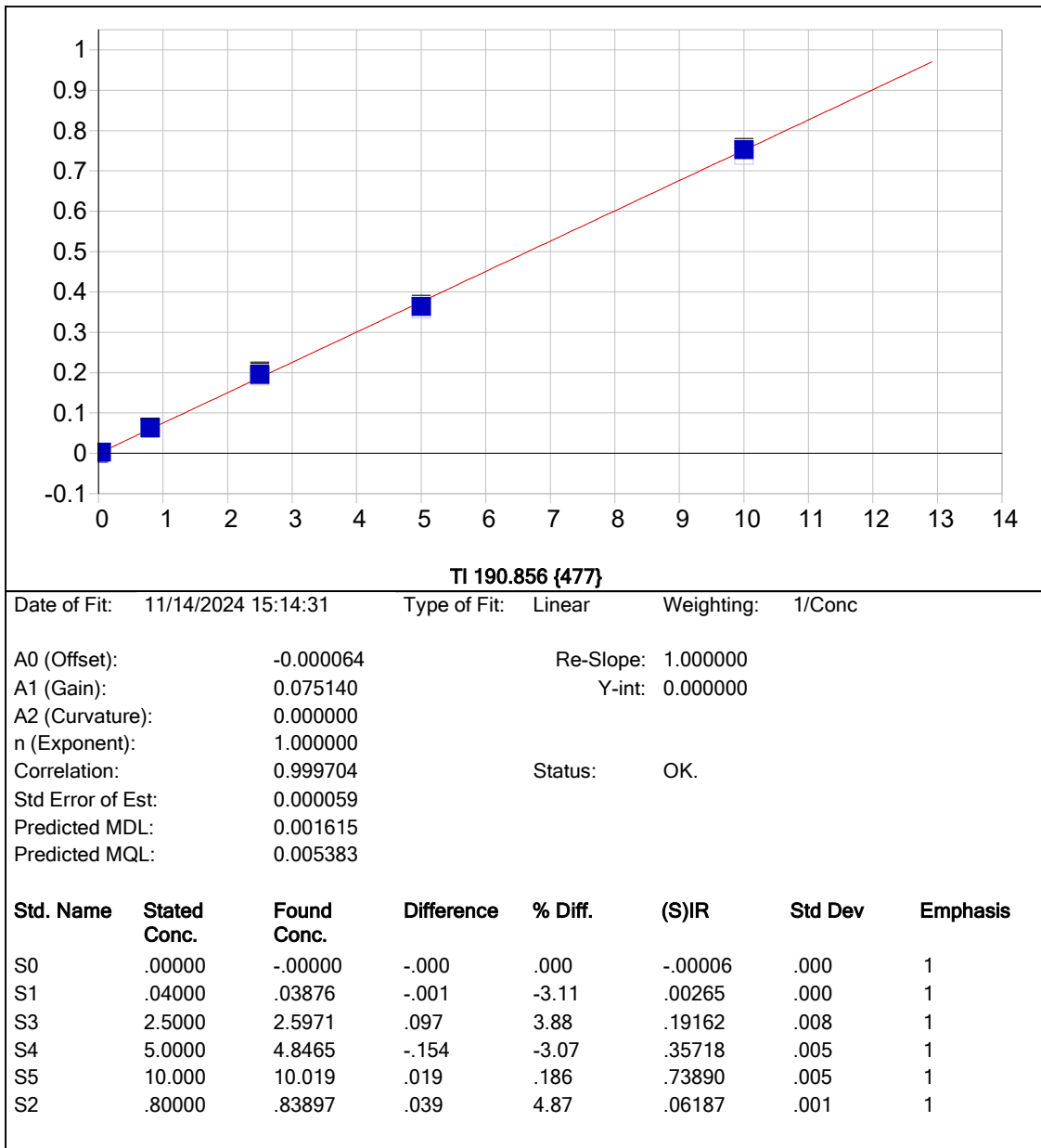
Start date: 11/14/2024 **End date:** 11/14/2024

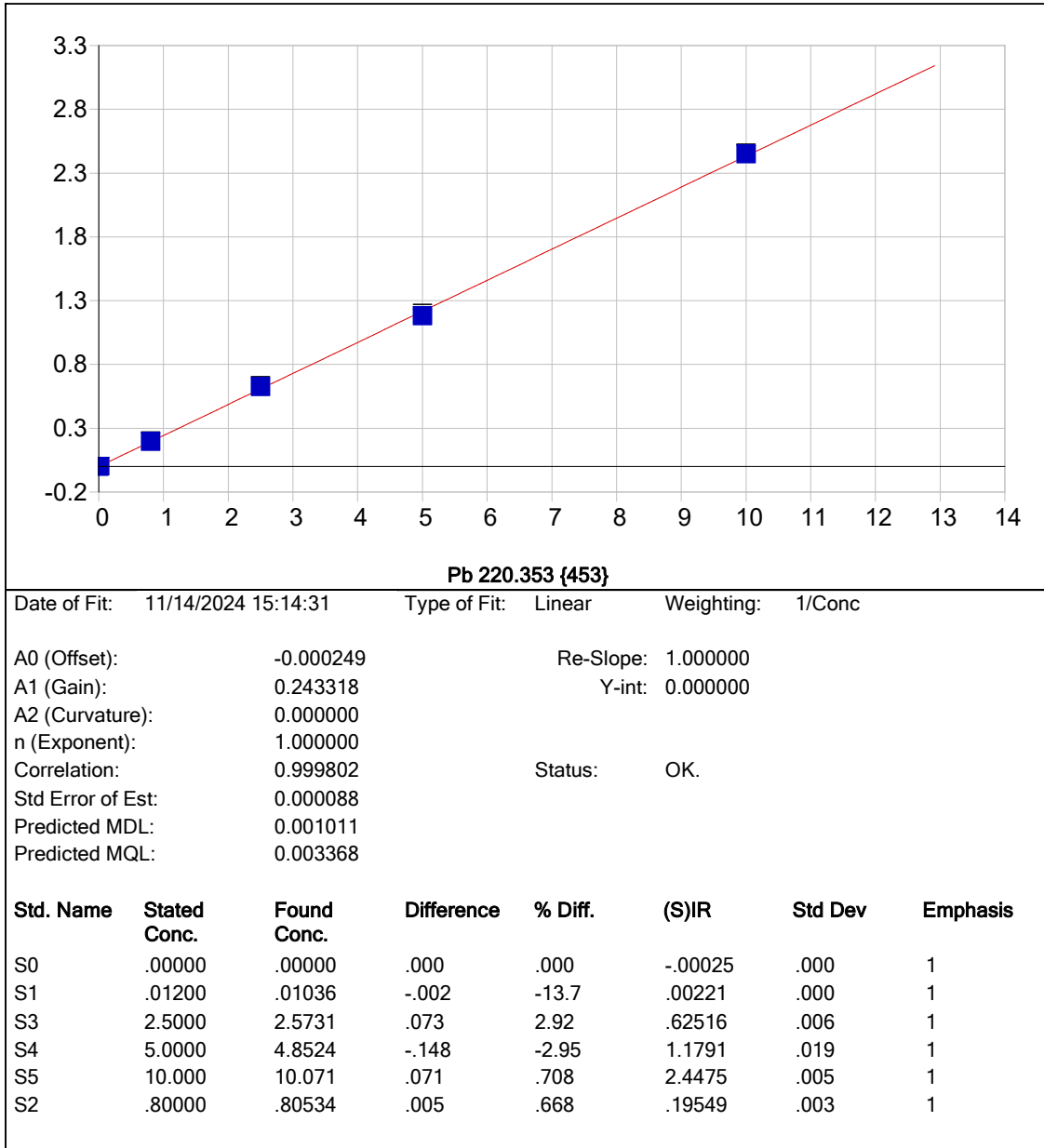
Lab sample id.	Client Sample Id	d/f	Time	Parameter list
CCV09	CCV09	1	2204	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB09	CCB09	1	2208	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV10	CCV10	1	2258	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB10	CCB10	1	2303	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

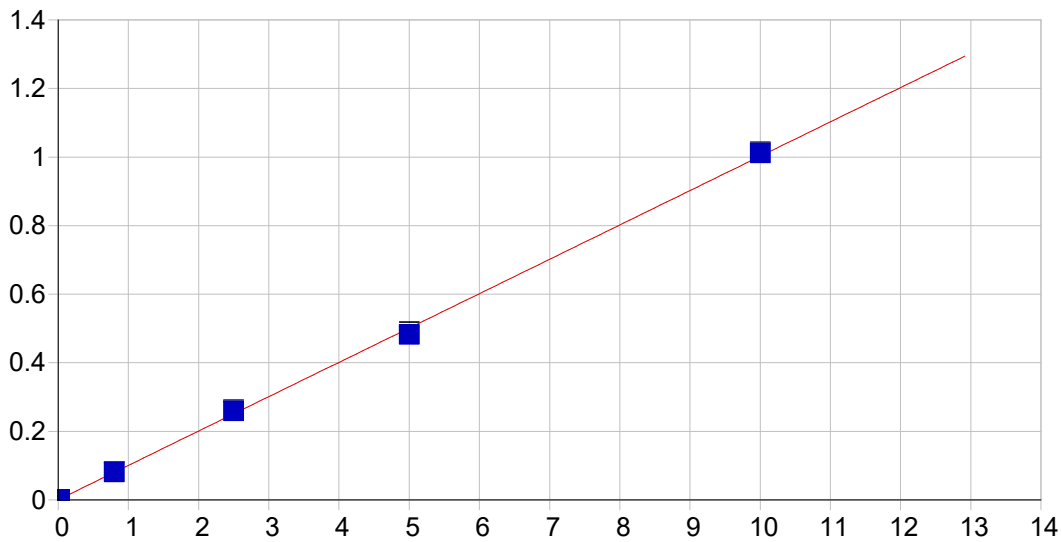






Date of Fit: 11/14/2024 15:14:31 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000249 Re-Slope: 1.000000
A1 (Gain): 0.243318 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999802 Status: OK.
Std Error of Est: 0.000088
Predicted MDL: 0.001011
Predicted MQL: 0.003368

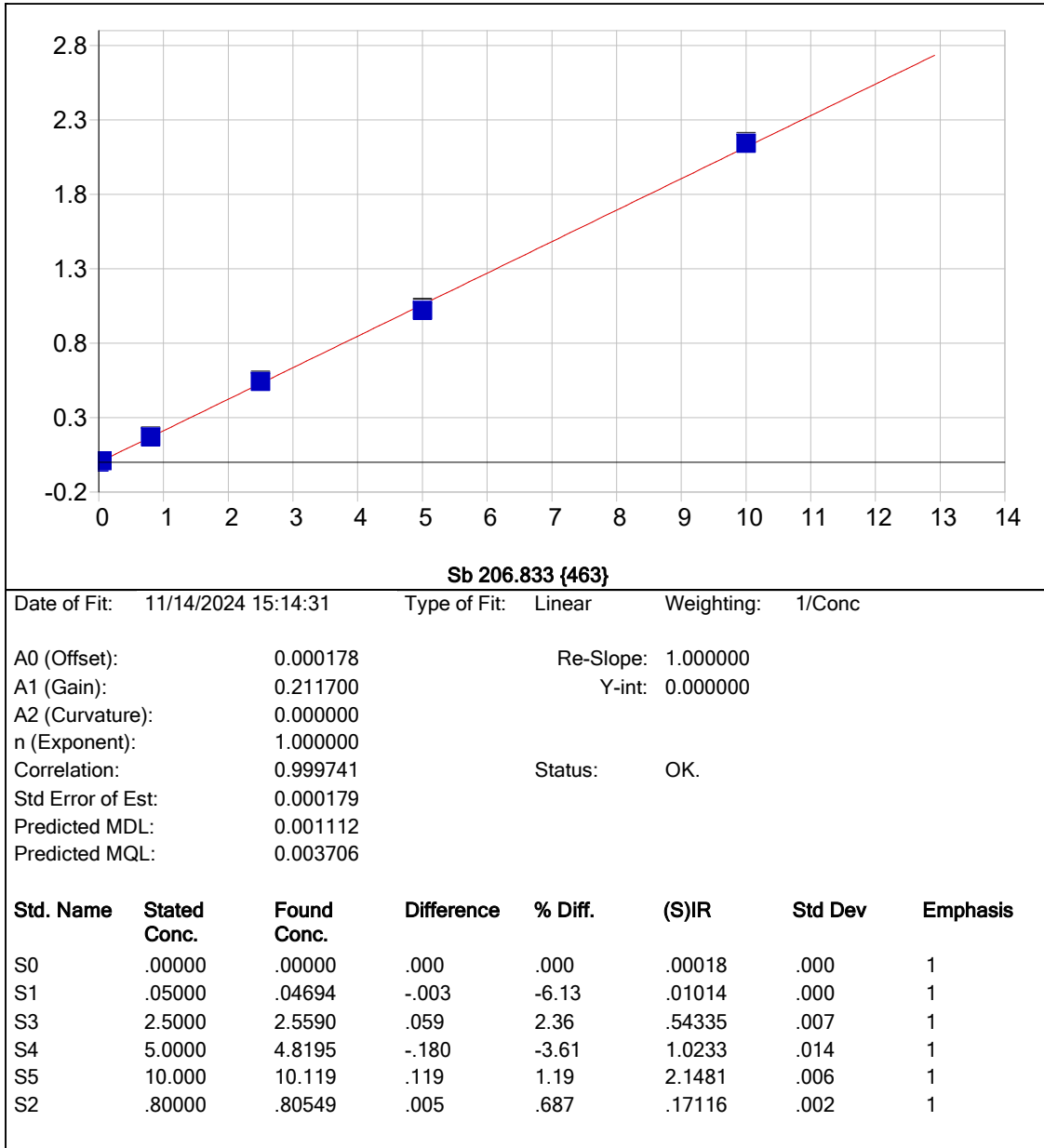


Se 196.090 {472}

Date of Fit: 11/14/2024 15:14:31 Type of Fit: Linear Weighting: 1/Conc

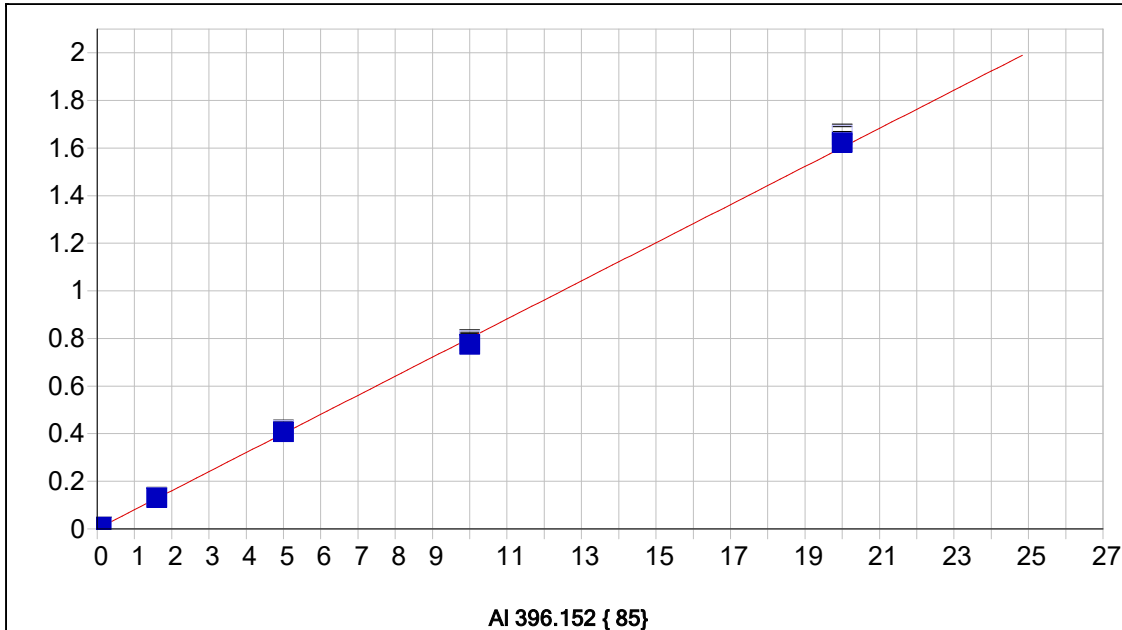
A0 (Offset): 0.000500 Re-Slope: 1.000000
A1 (Gain): 0.100183 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999711 Status: OK.
Std Error of Est: 0.000056
Predicted MDL: 0.001941
Predicted MQL: 0.006471

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00050	.000	1
S1	.02000	.01893	-.001	-5.35	.00240	.000	1
S3	2.5000	2.5813	.081	3.25	.25903	.004	1
S4	5.0000	4.8147	-.185	-3.71	.48272	.007	1
S5	10.000	10.096	.096	.960	1.0117	.003	1
S2	.80000	.80910	.009	1.14	.08154	.001	1

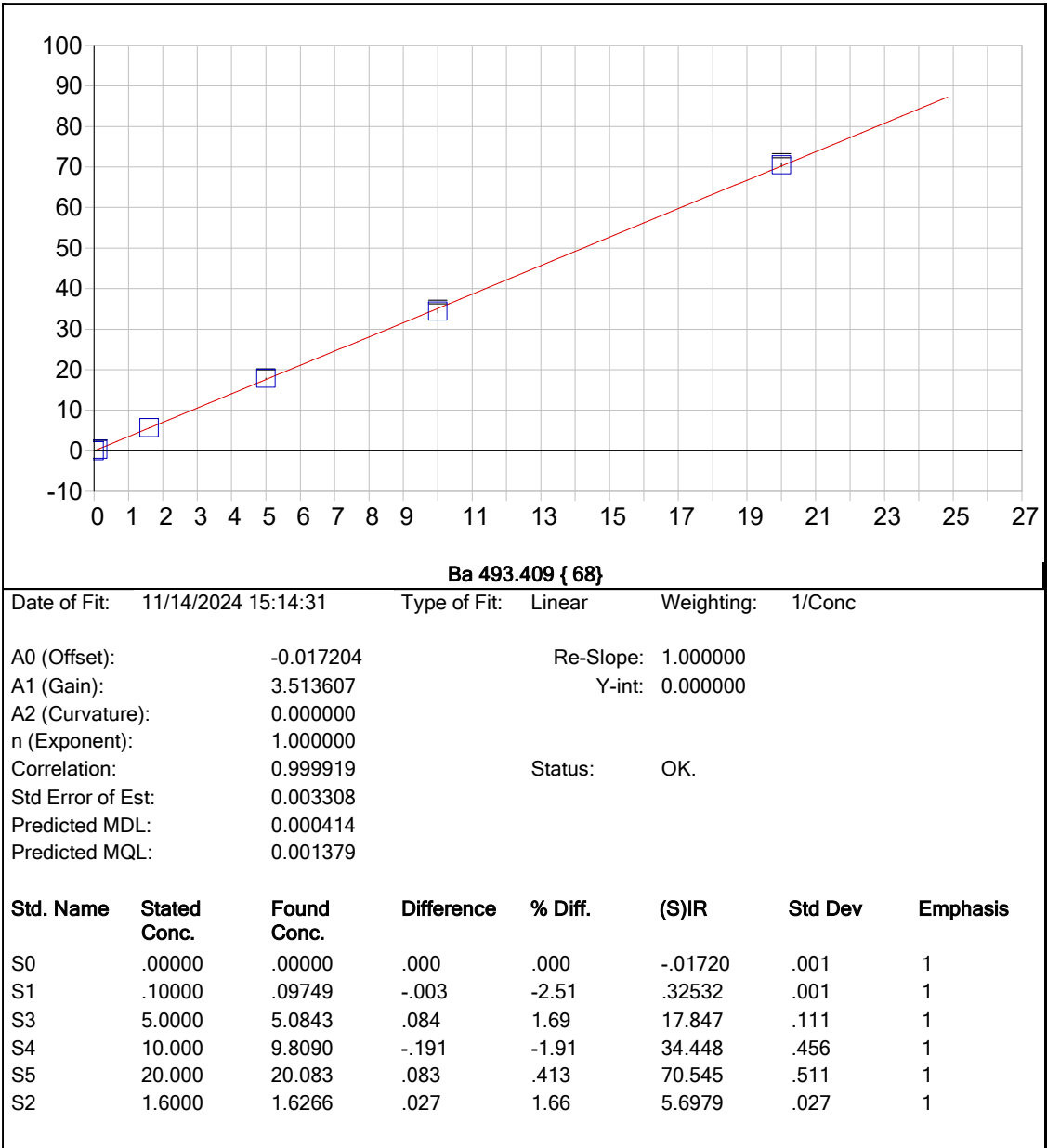


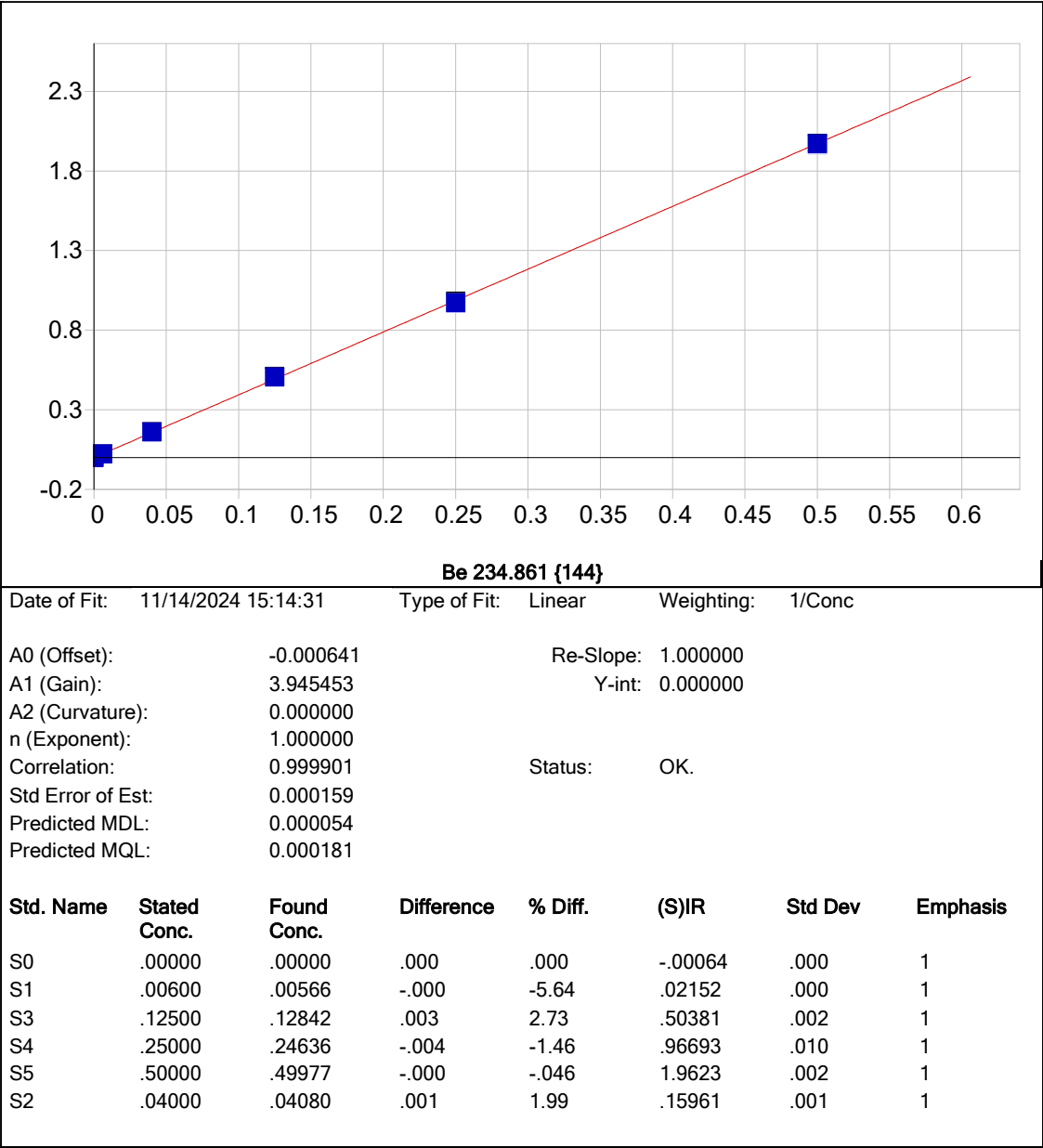
Date of Fit: 11/14/2024 15:14:31 Type of Fit: Linear Weighting: 1/Conc

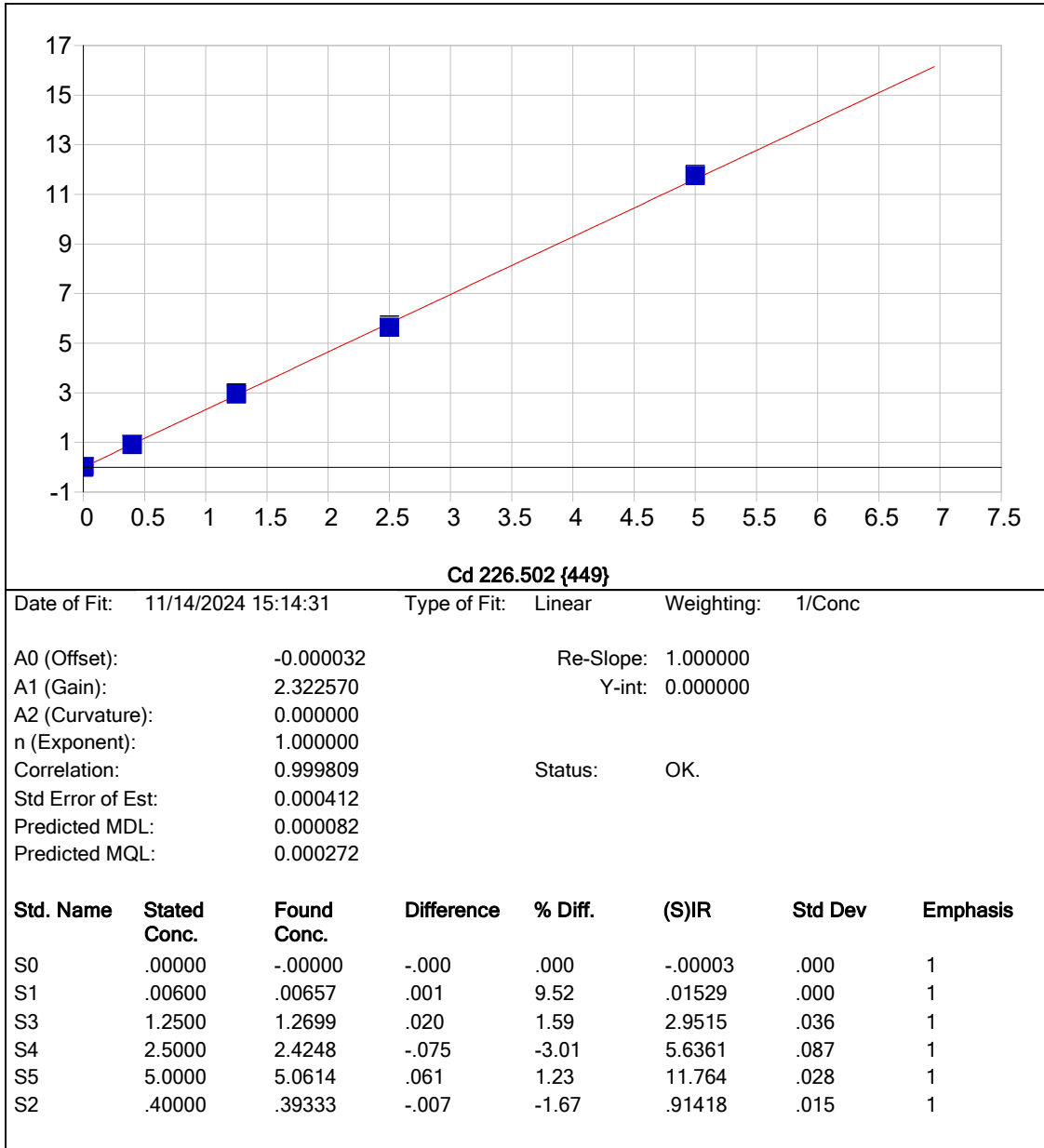
A0 (Offset): 0.000178 Re-Slope: 1.000000
A1 (Gain): 0.211700 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999741 Status: OK.
Std Error of Est: 0.000179
Predicted MDL: 0.001112
Predicted MQL: 0.003706

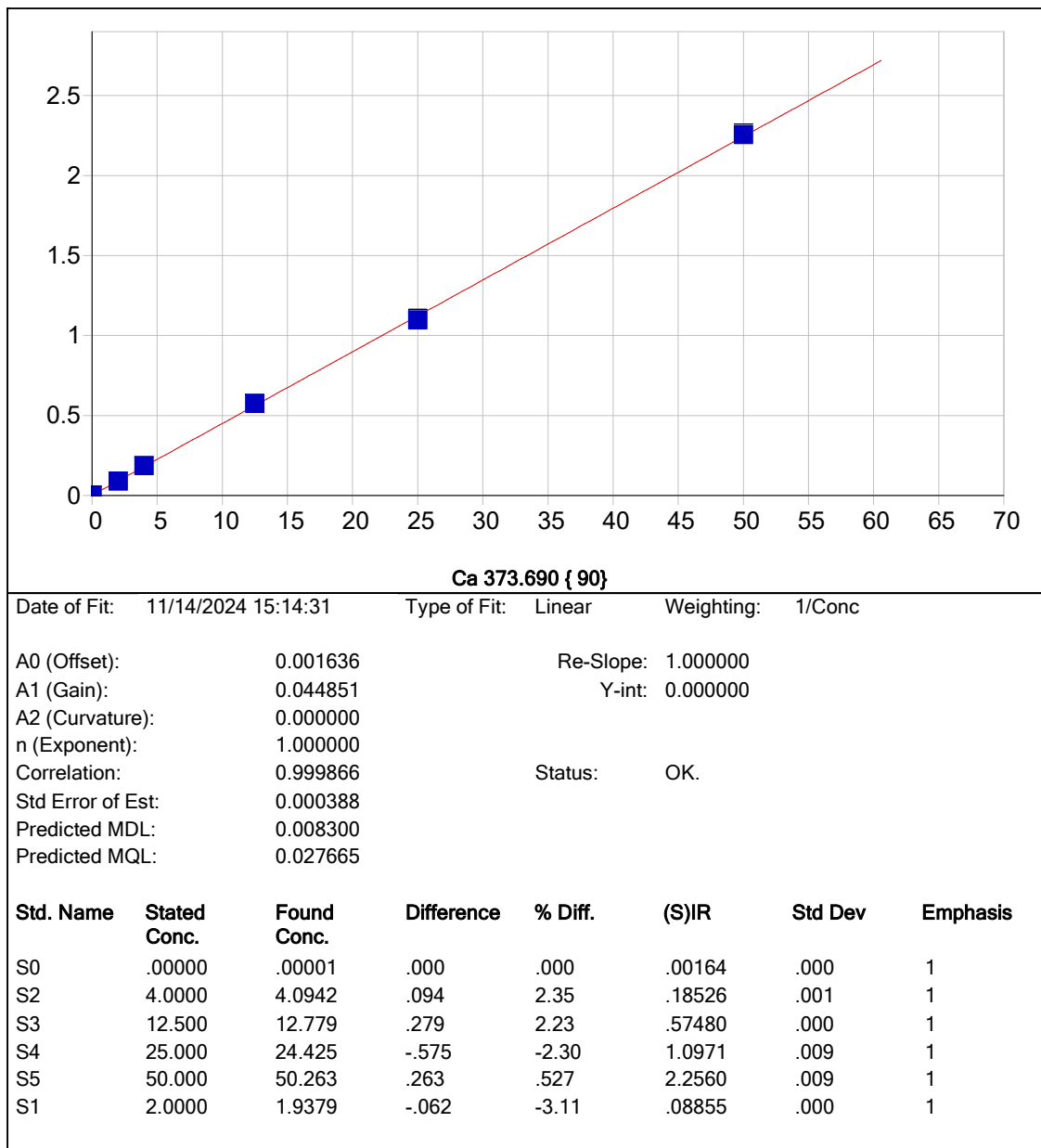


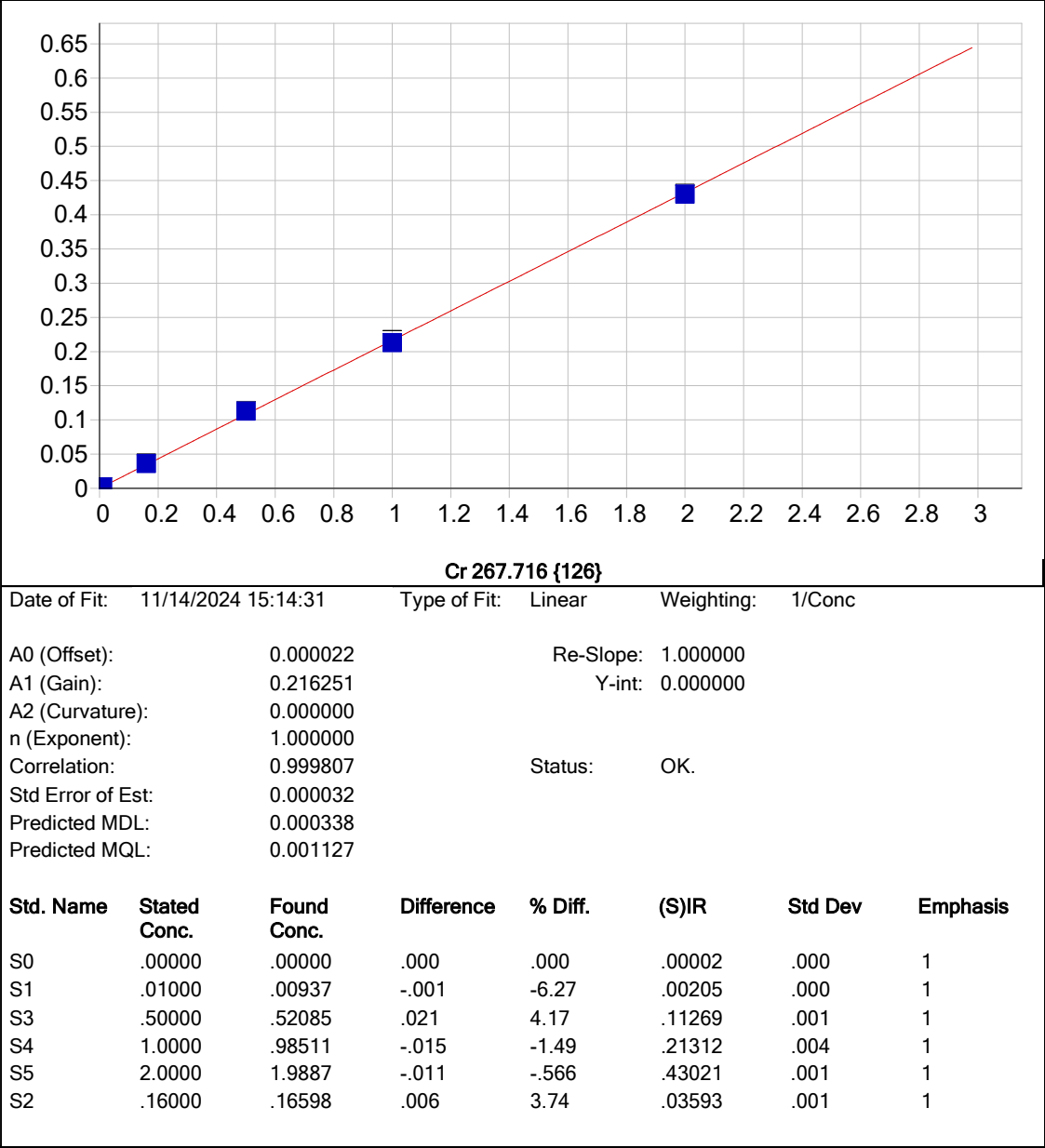
Date of Fit:	11/14/2024 15:14:31	Type of Fit:	Linear	Weighting:	1/Conc		
A0 (Offset):	0.000332		Re-Slope:	1.000000			
A1 (Gain):	0.080121		Y-int:	0.000000			
A2 (Curvature):	0.000000						
n (Exponent):	1.000000						
Correlation:	0.999796		Status:	OK.			
Std Error of Est:	0.000122						
Predicted MDL:	0.004993						
Predicted MQL:	0.016644						
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00033	.000	1
S1	.10000	.09784	-.002	-2.16	.00879	.000	1
S3	5.0000	5.0743	.074	1.49	.41466	.001	1
S4	10.000	9.6648	-.335	-3.35	.79023	.005	1
S5	20.000	20.247	.247	1.23	1.6536	.006	1
S2	1.6000	1.6162	.016	1.01	.13231	.001	1

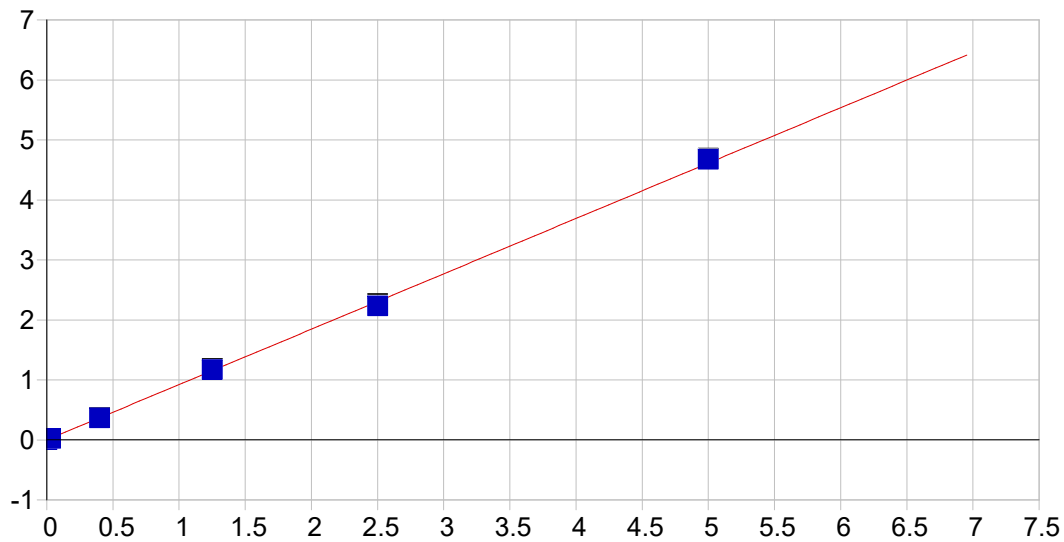










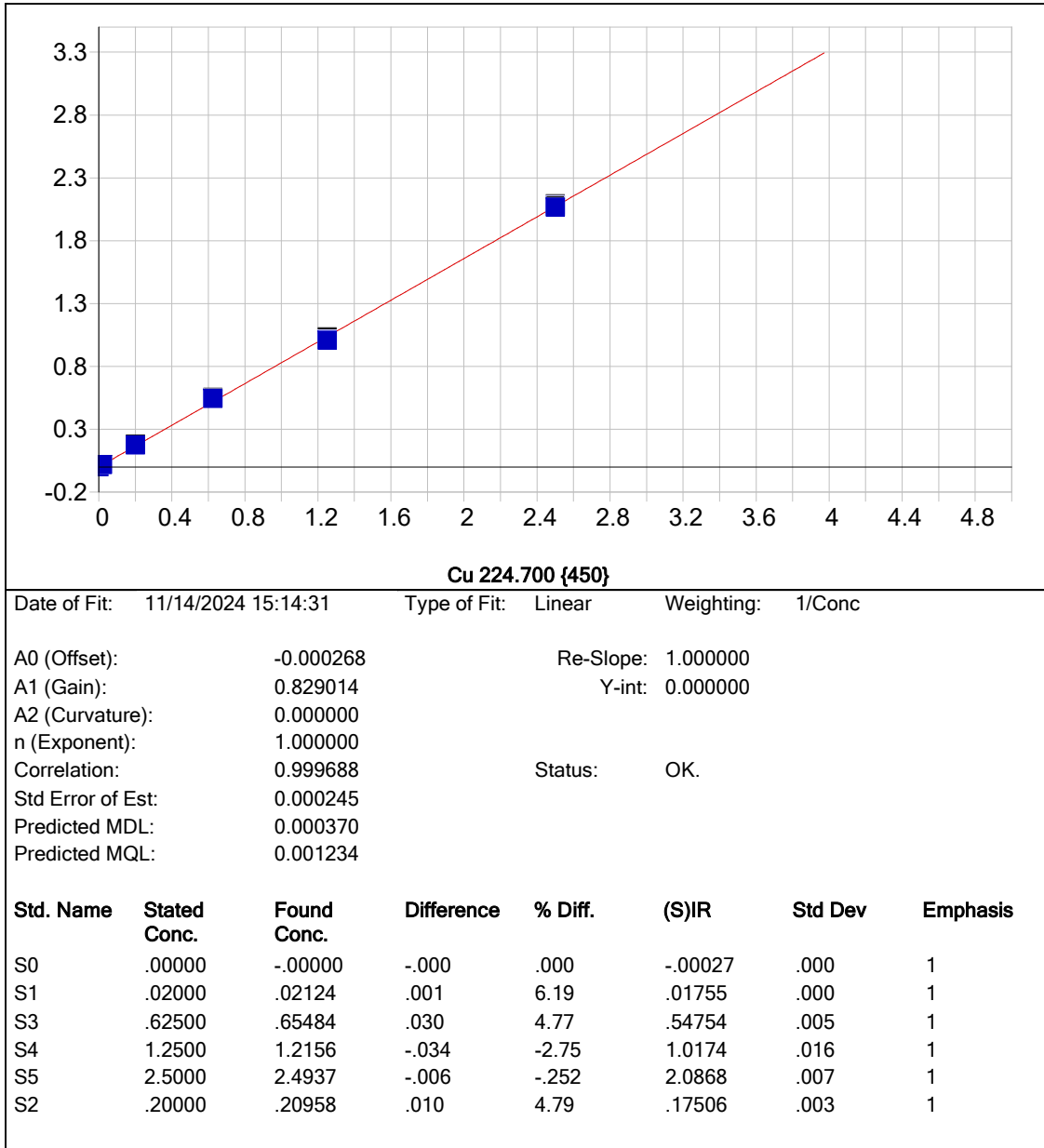


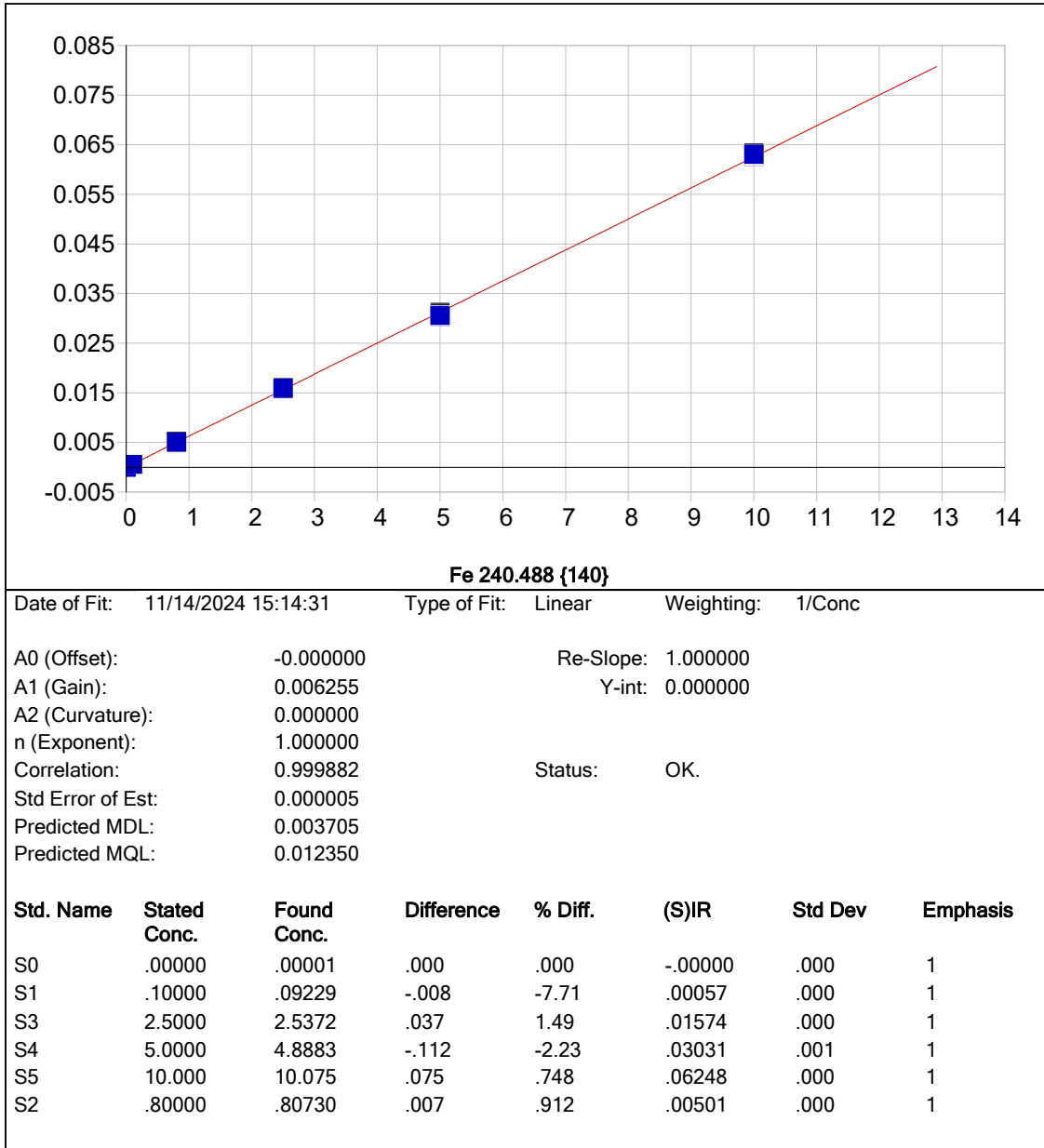
Co 228.616 {448}

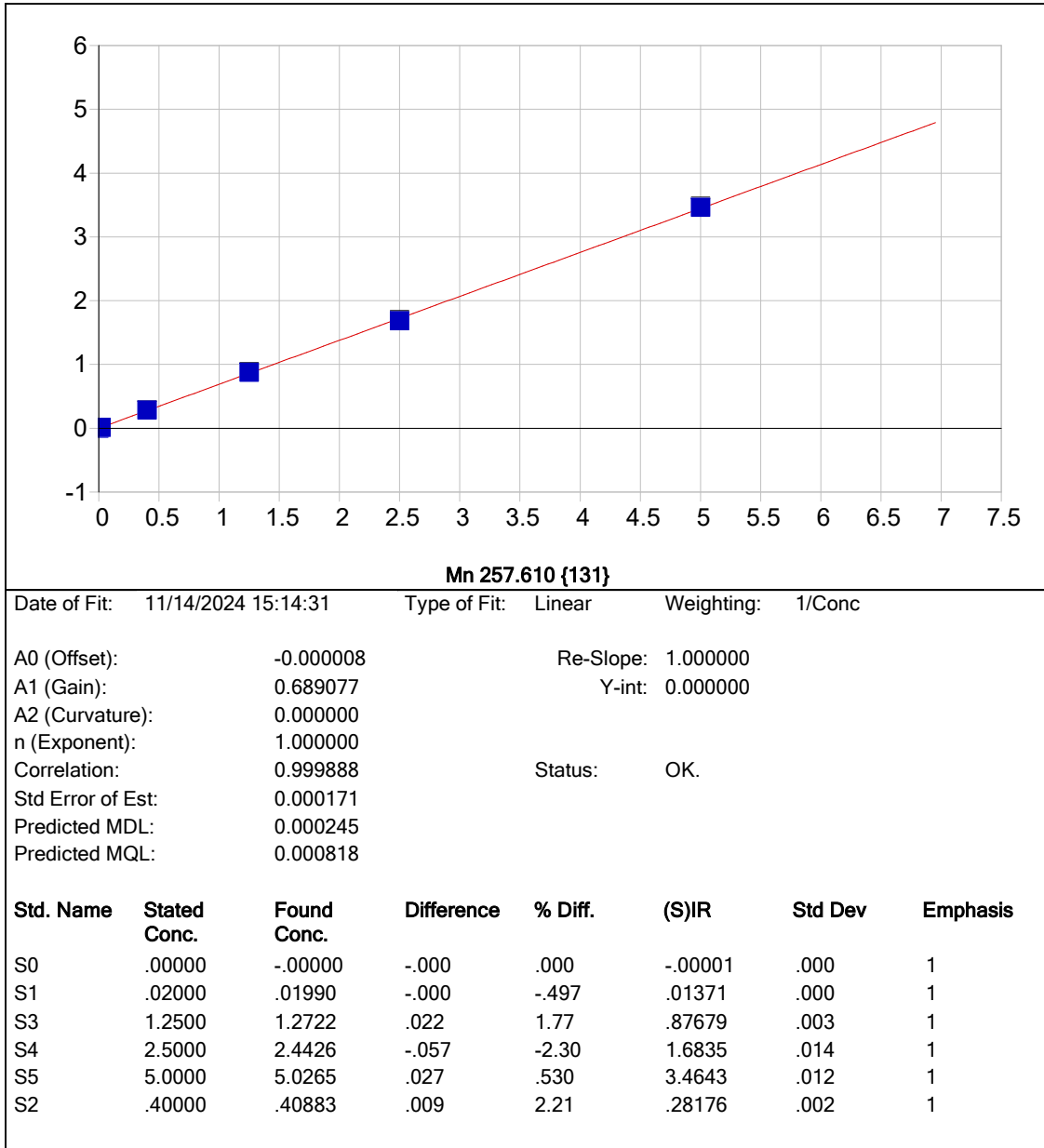
Date of Fit: 11/14/2024 15:14:31 Type of Fit: Linear Weighting: 1/Conc

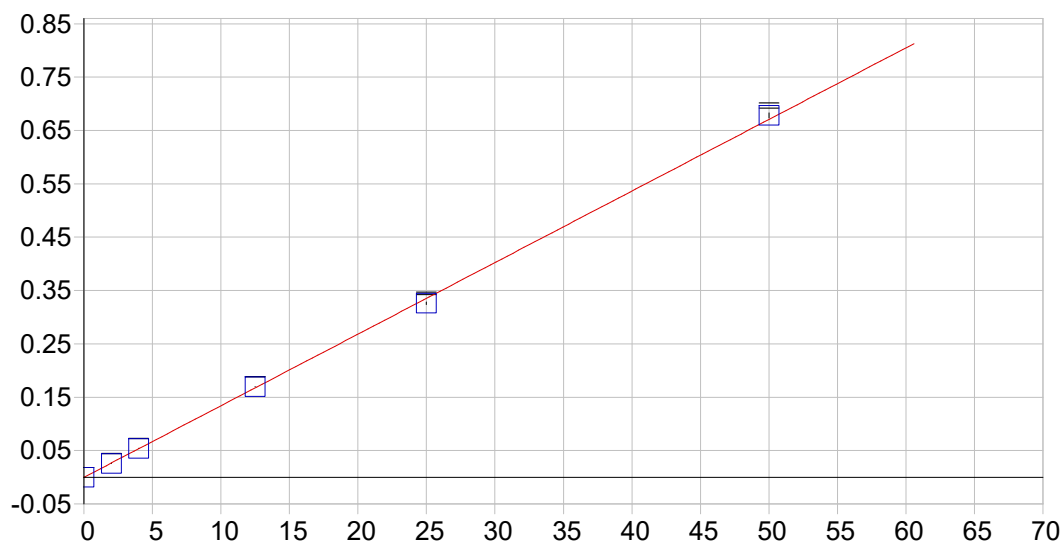
A0 (Offset): -0.000072 Re-Slope: 1.000000
A1 (Gain): 0.922624 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999772 Status: OK.
Std Error of Est: 0.000401
Predicted MDL: 0.000184
Predicted MQL: 0.000615

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00007	.000	1
S1	.03000	.02832	-.002	-5.60	.02594	.000	1
S3	1.2500	1.2703	.020	1.63	1.1739	.014	1
S4	2.5000	2.4167	-.083	-3.33	2.2336	.034	1
S5	5.0000	5.0692	.069	1.38	4.6847	.009	1
S2	.40000	.39542	-.005	-1.15	.36537	.006	1







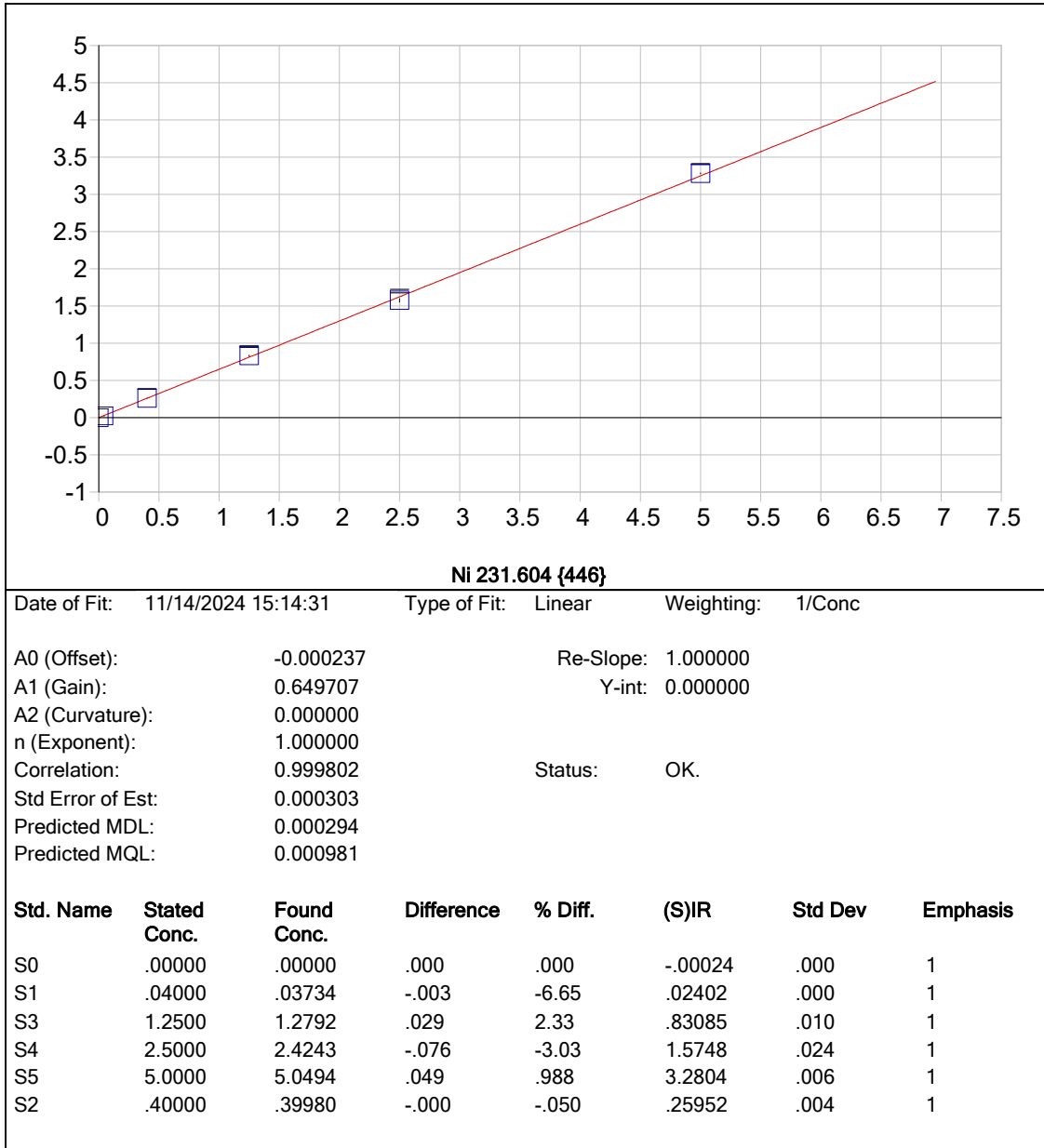


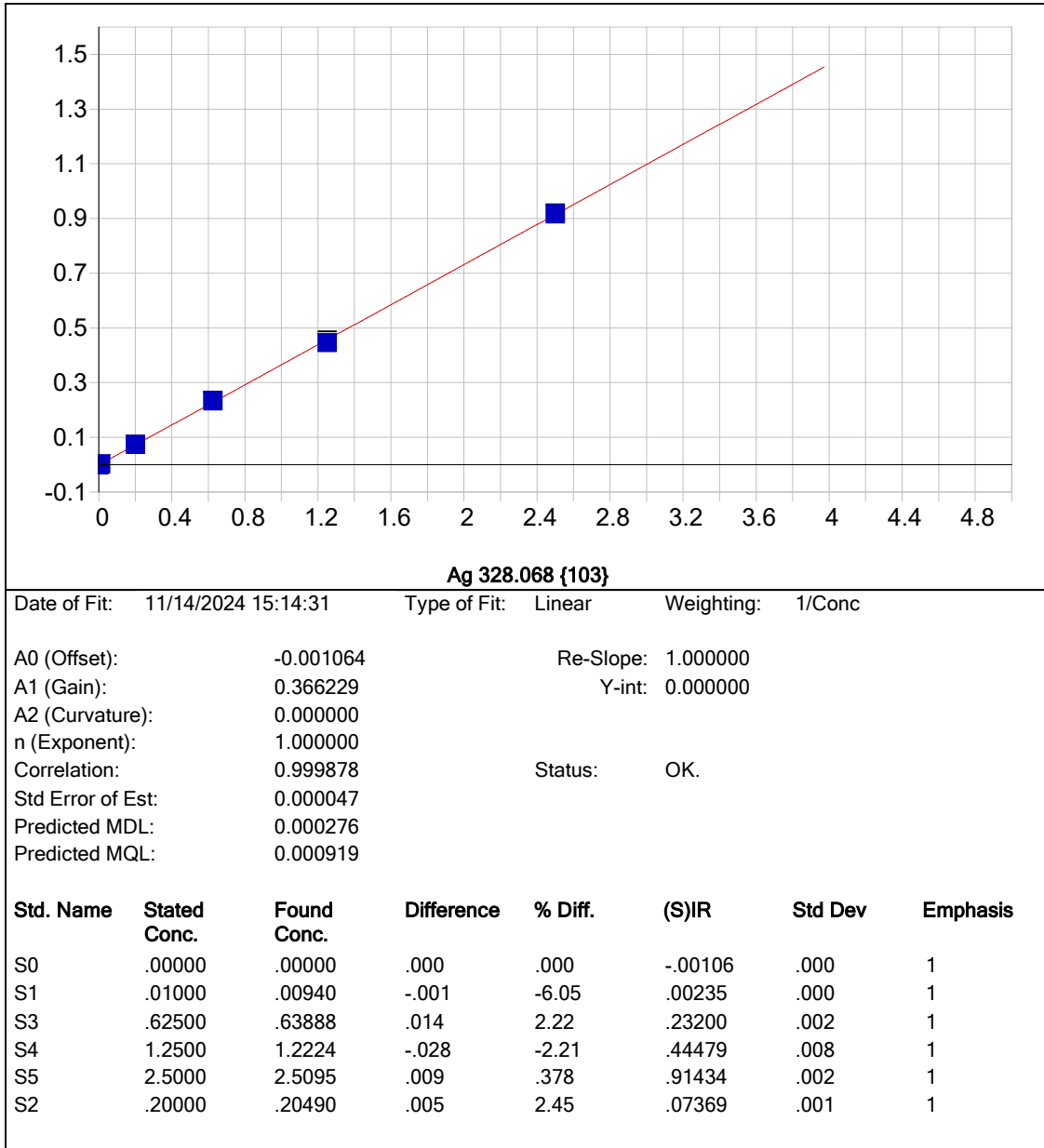
Mg 279.079 {121}

Date of Fit: 11/14/2024 15:14:31 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000180 Re-Slope: 1.000000
A1 (Gain): 0.013418 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999844 Status: OK.
Std Error of Est: 0.000125
Predicted MDL: 0.013319
Predicted MQL: 0.044397

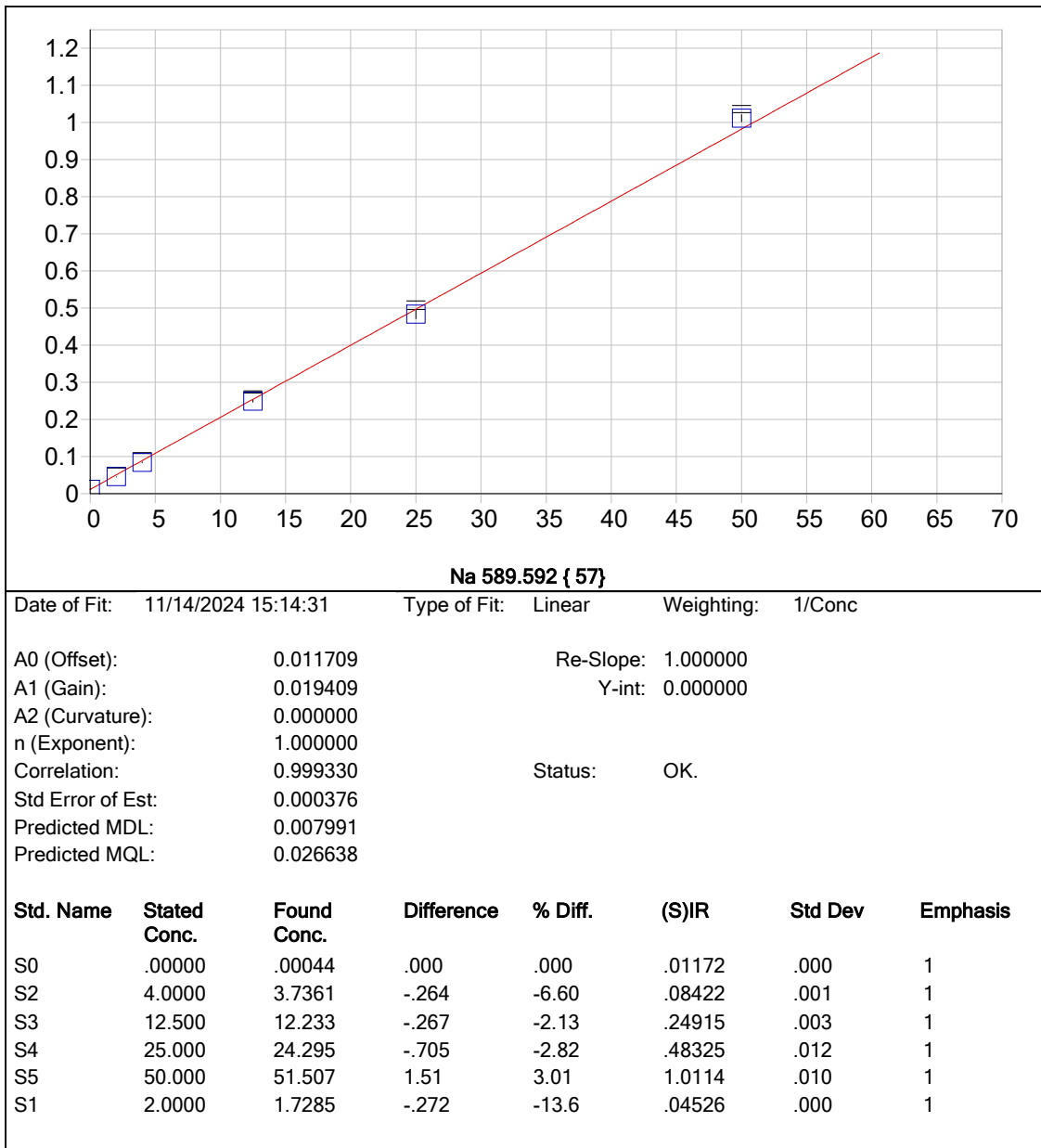
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	-.00018	.000	1
S2	4.0000	4.0320	.032	.800	.05392	.000	1
S3	12.500	12.652	.152	1.22	.16959	.000	1
S4	25.000	24.318	-.682	-2.73	.32612	.003	1
S5	50.000	50.562	.562	1.12	.67826	.005	1
S1	2.0000	1.9355	-.064	-3.22	.02579	.000	1

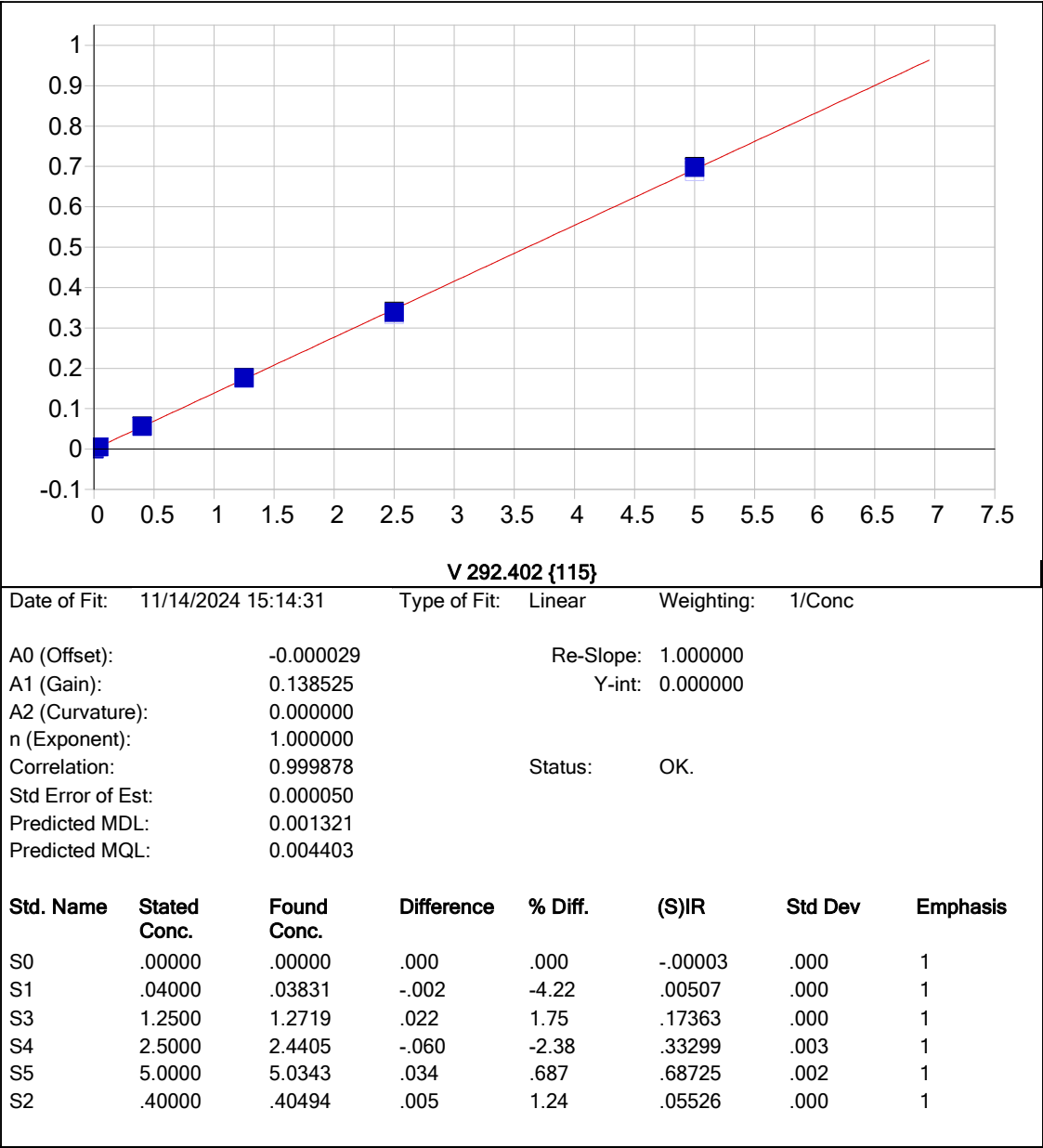


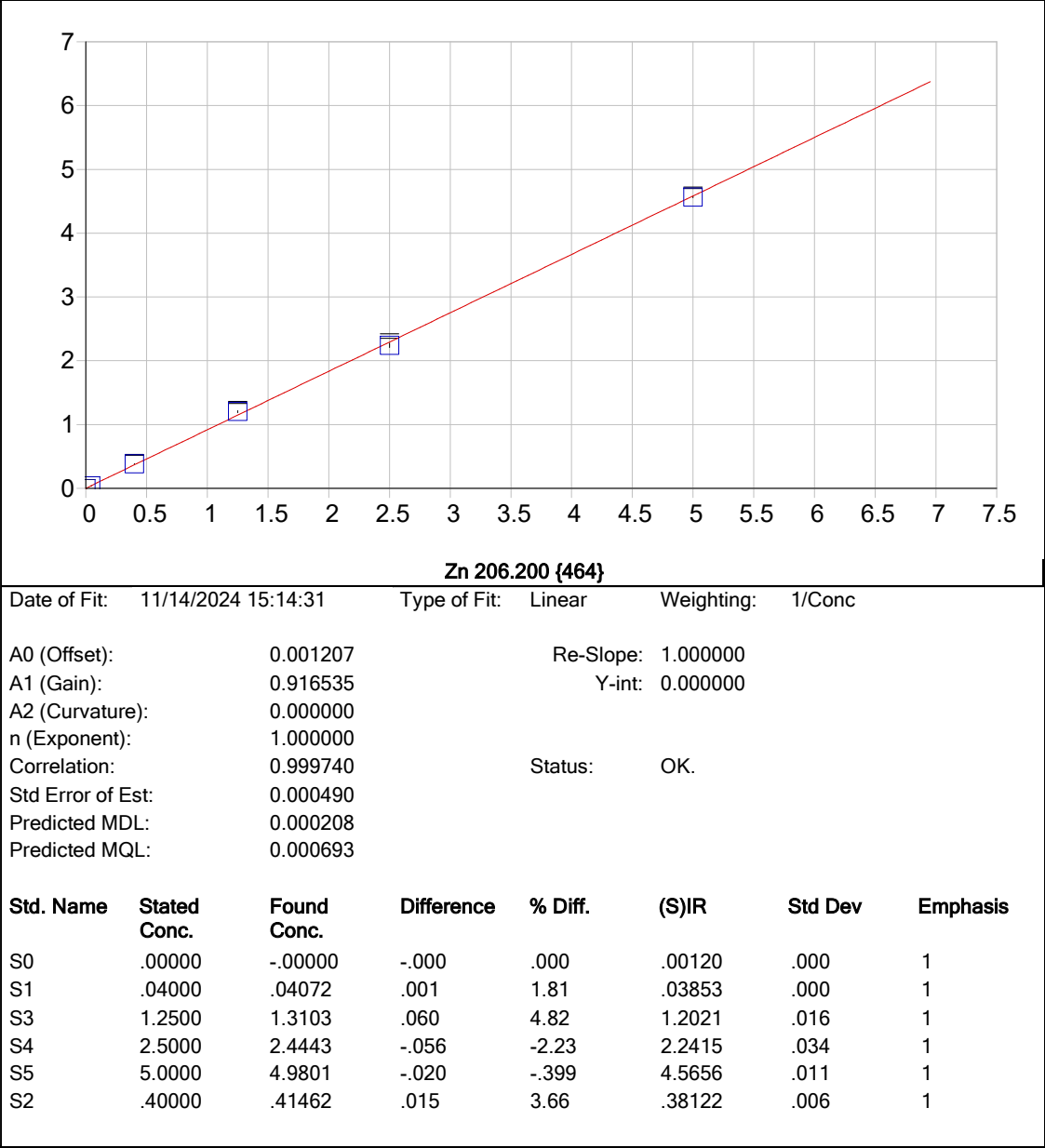


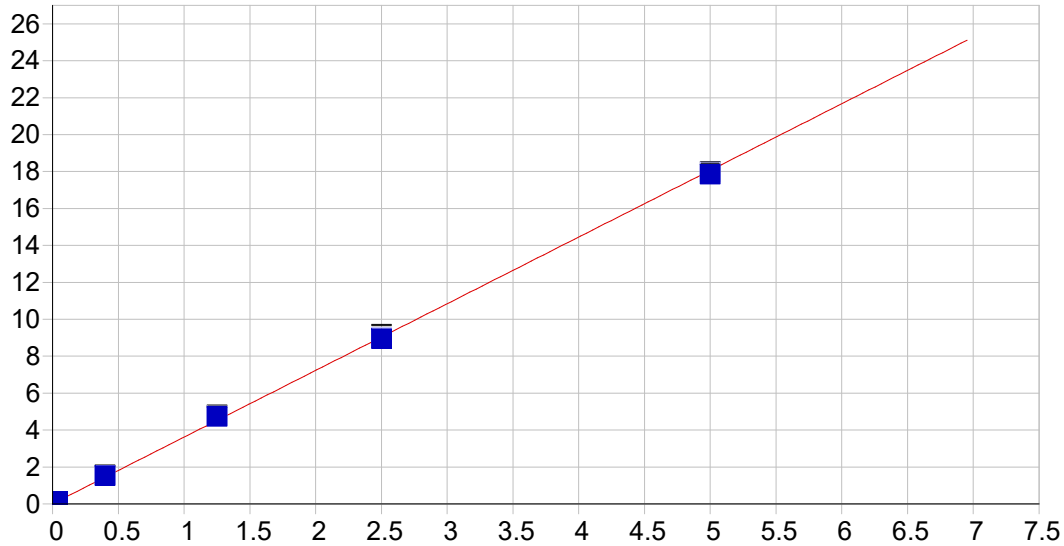
Date of Fit: 11/14/2024 15:14:31 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.001064 Re-Slope: 1.000000
A1 (Gain): 0.366229 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999878 Status: OK.
Std Error of Est: 0.000047
Predicted MDL: 0.000276
Predicted MQL: 0.000919







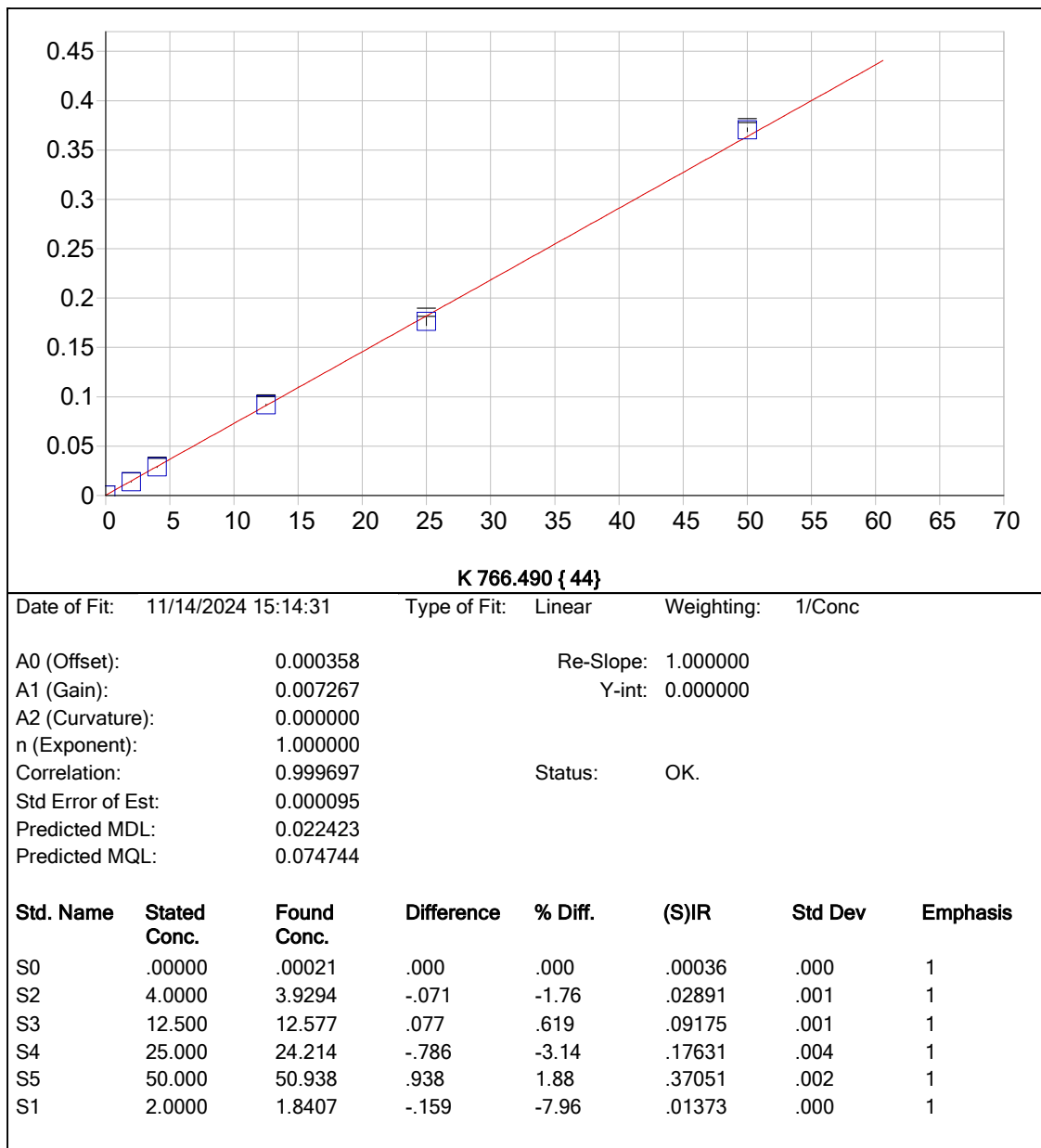


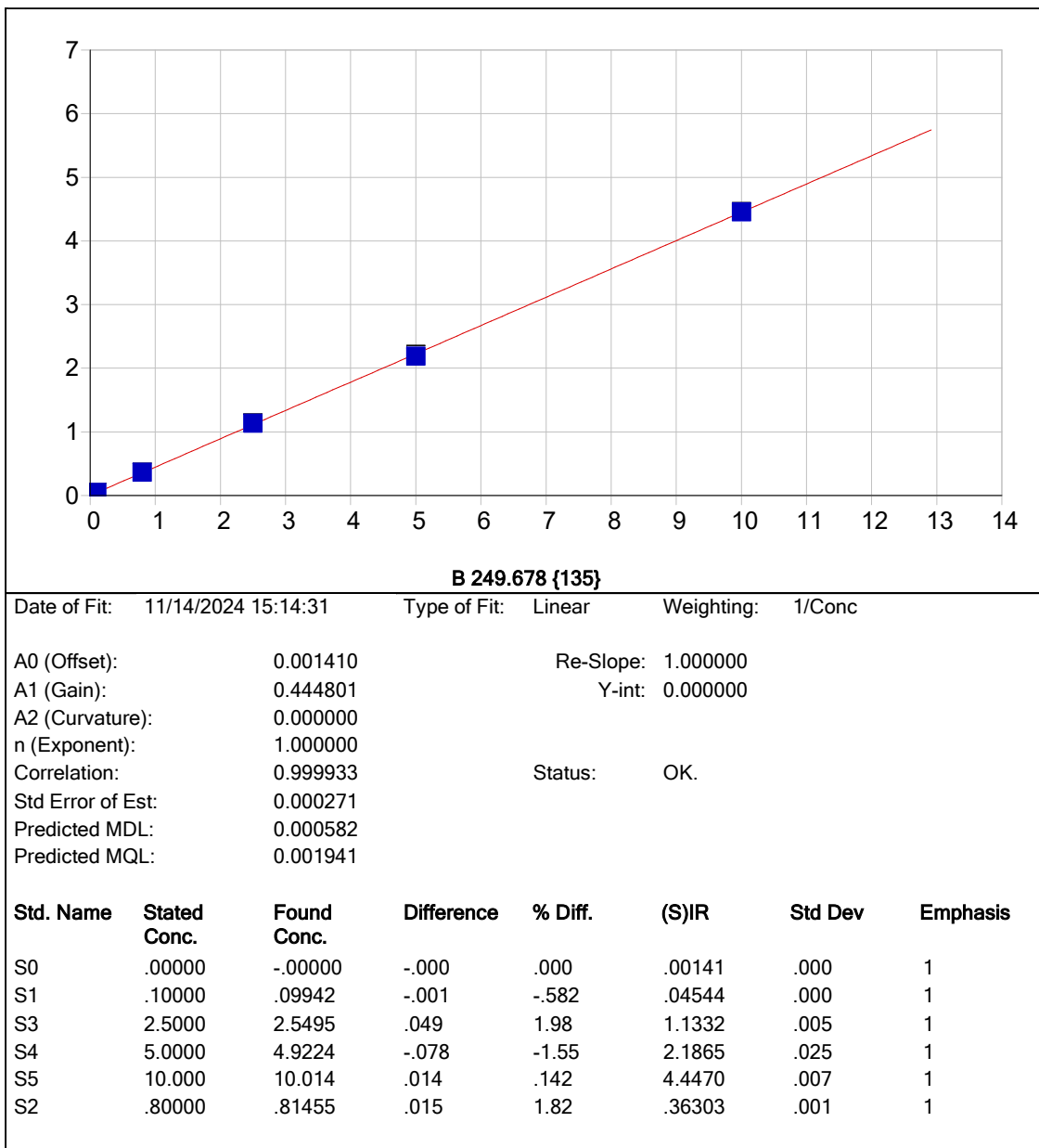
Zn 213.856 {158}

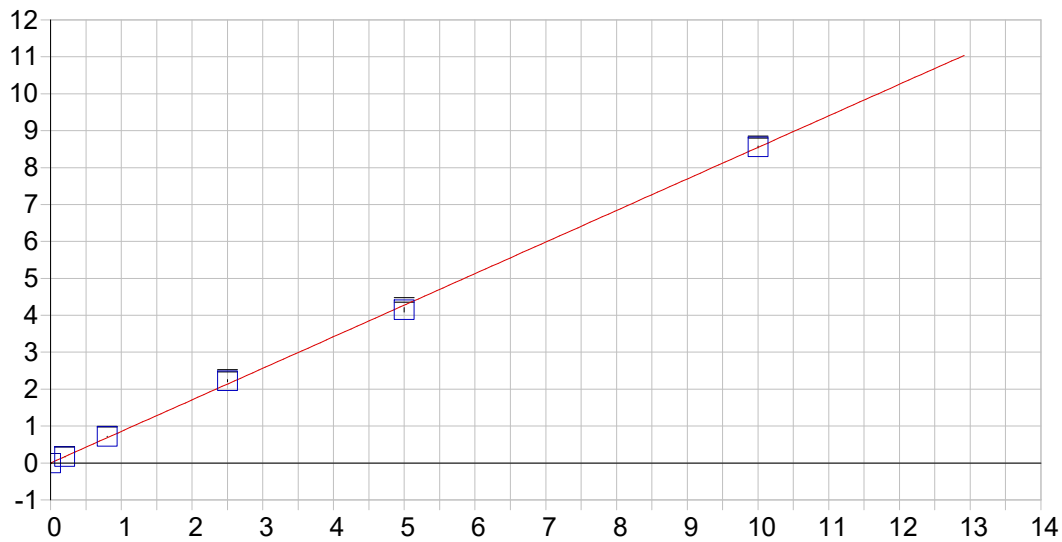
Date of Fit: 11/14/2024 15:14:31 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.006434	Re-Slope:	1.000000
A1 (Gain):	3.611276	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999736	Status:	OK.
Std Error of Est:	0.001961		
Predicted MDL:	0.000226		
Predicted MQL:	0.000755		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00642	.000	1
S1	.04000	.04092	.001	2.31	.15523	.002	1
S3	1.2500	1.3099	.060	4.79	4.7683	.050	1
S4	2.5000	2.4763	-.024	-.949	9.0118	.167	1
S5	5.0000	4.9417	-.058	-1.17	17.978	.028	1
S2	.40000	.42117	.021	5.29	1.5374	.028	1





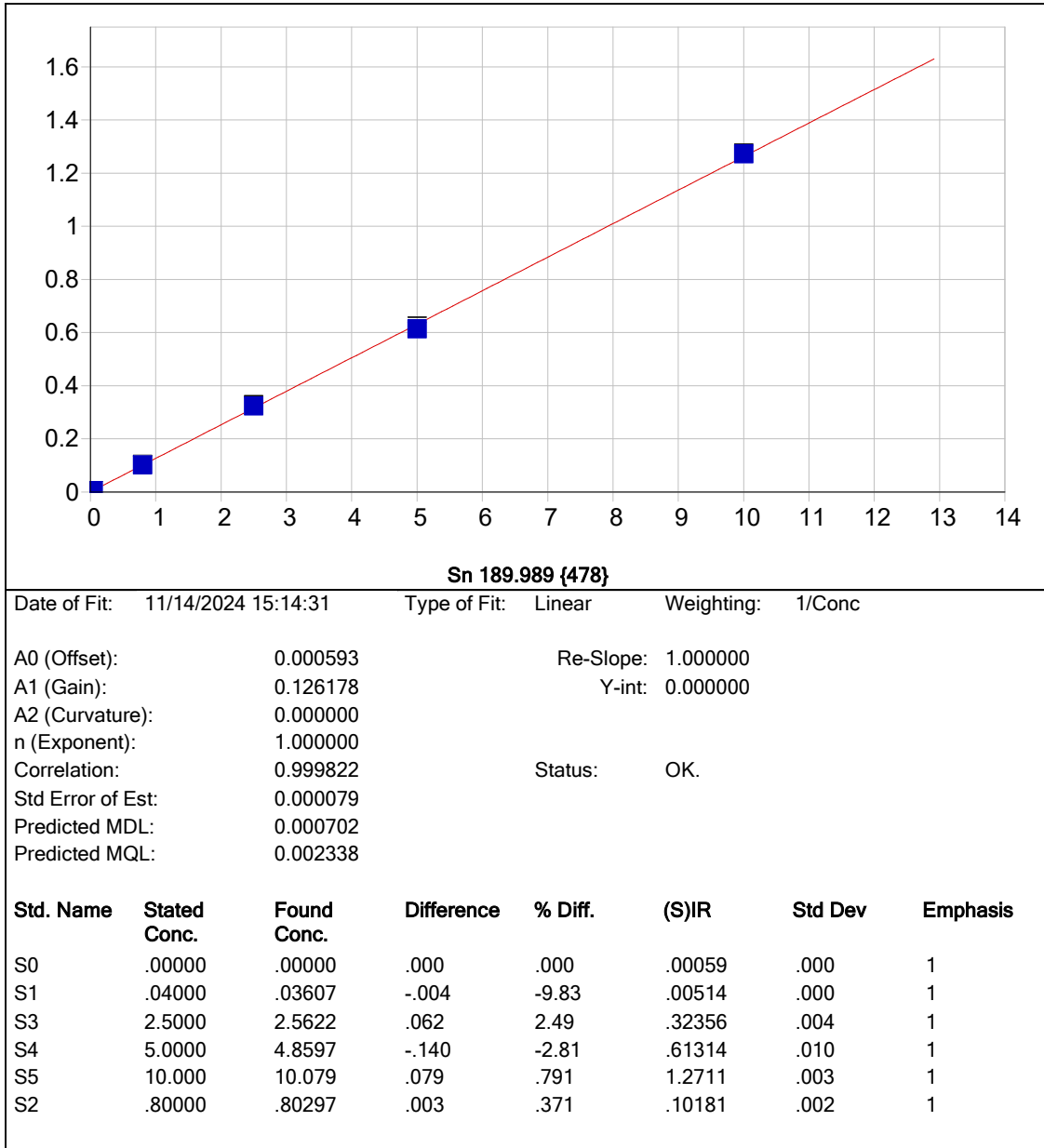


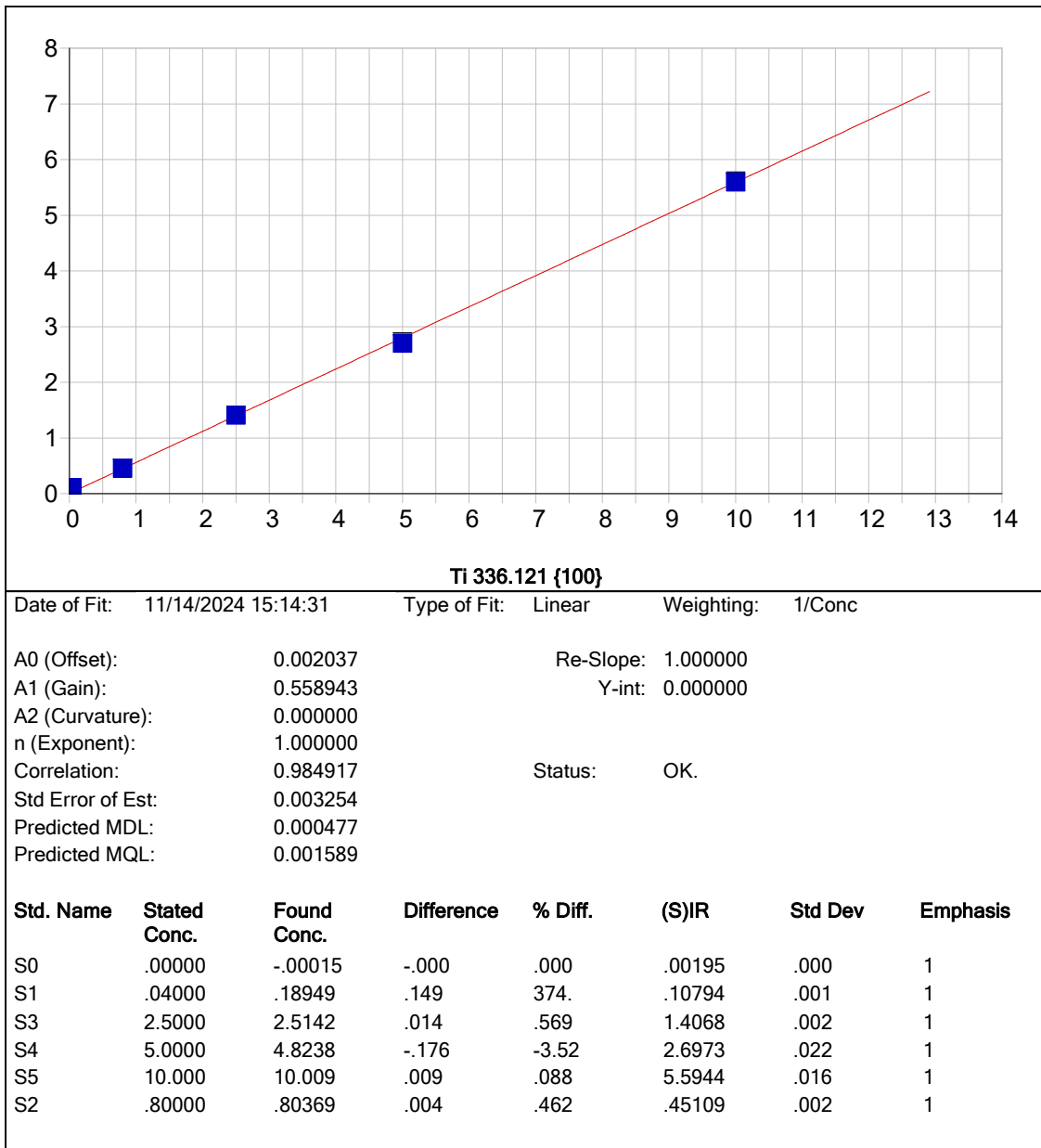
Mo 202.030 {467}

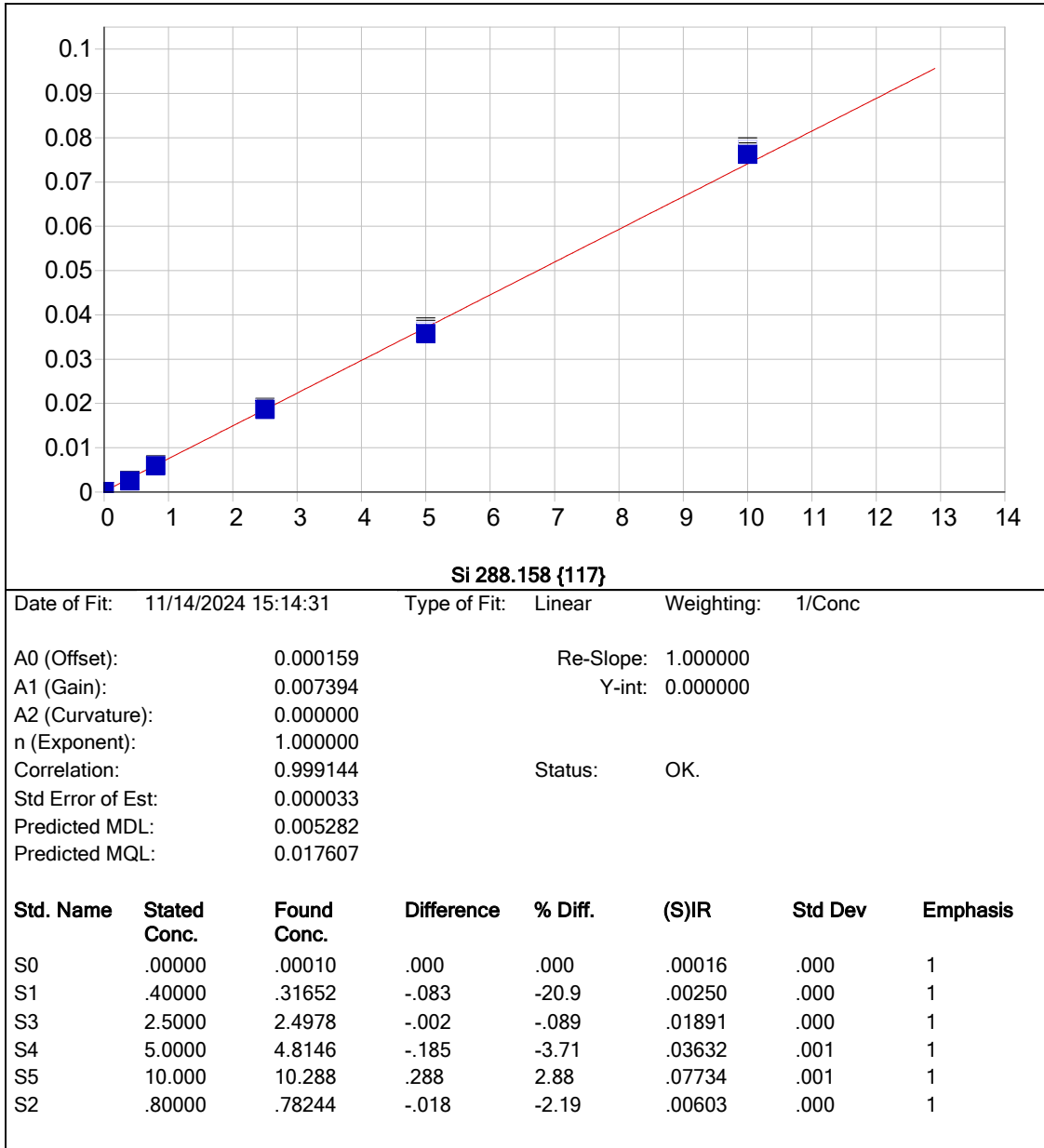
Date of Fit: 11/14/2024 15:14:31 Type of Fit: Linear Weighting: 1/Conc

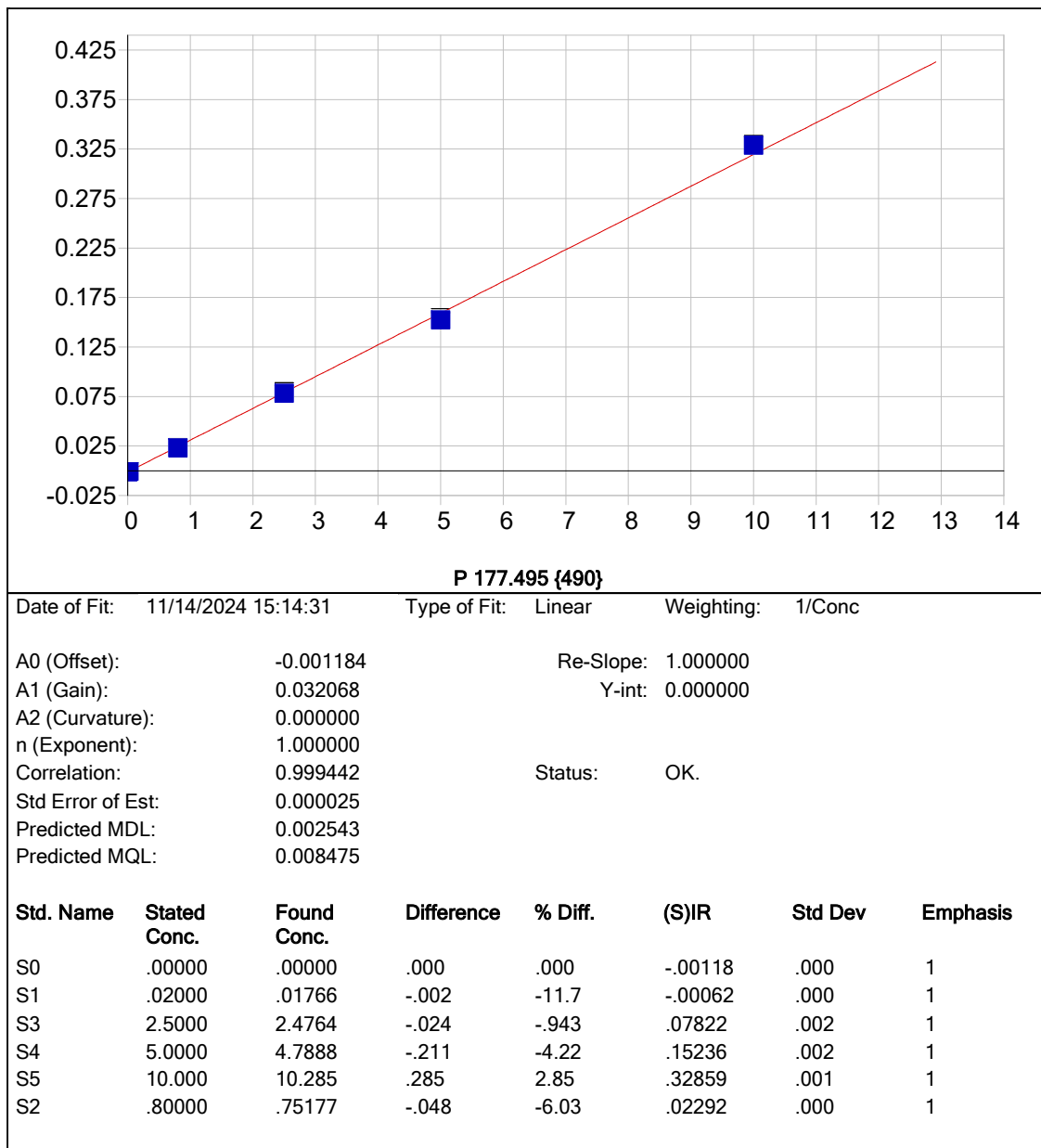
A0 (Offset): 0.000053 Re-Slope: 1.000000
A1 (Gain): 0.854758 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999720 Status: OK.
Std Error of Est: 0.001507
Predicted MDL: 0.000236
Predicted MQL: 0.000787

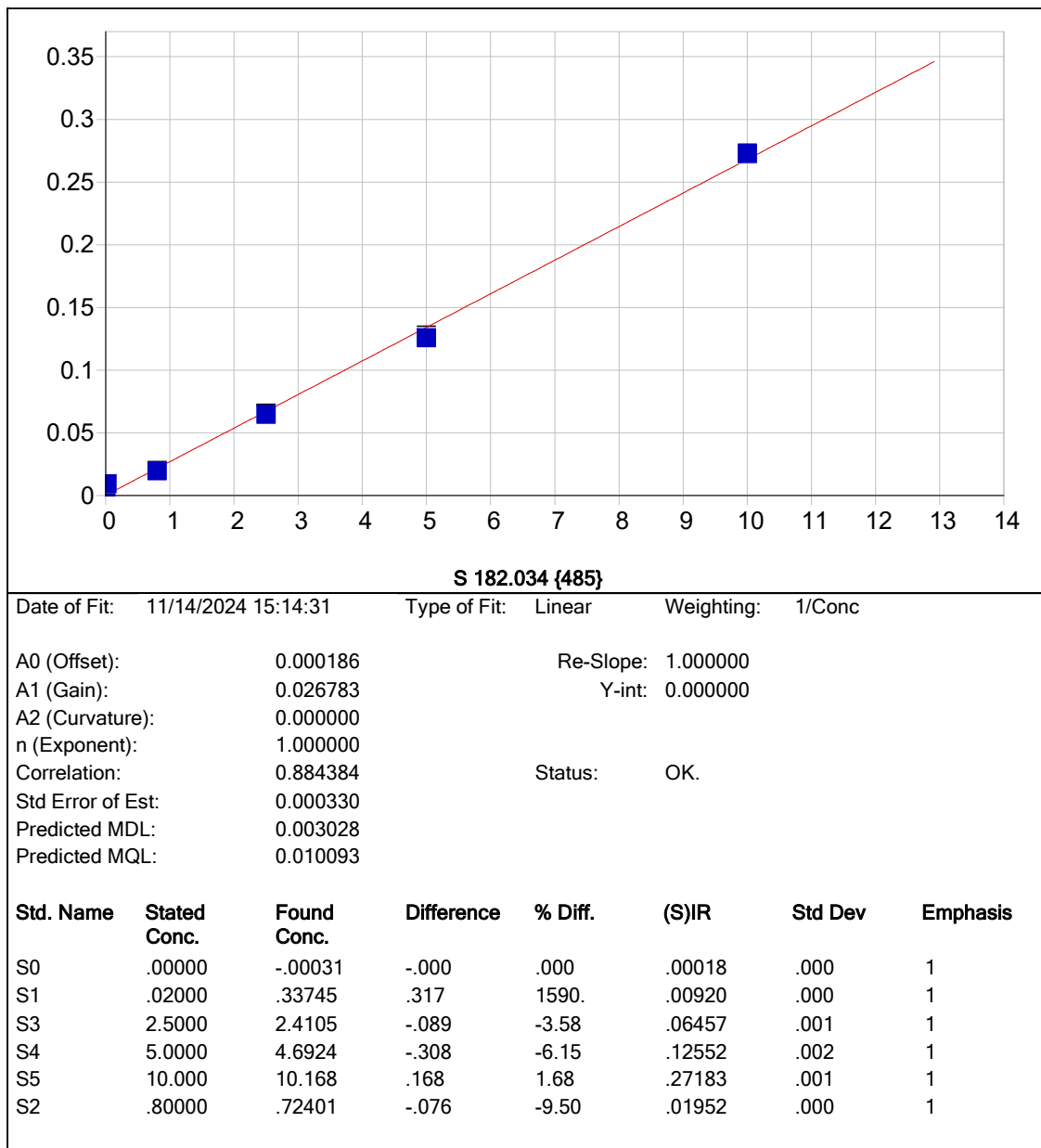
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00005	.000	1
S1	.20000	.19786	-.002	-1.07	.16918	.001	1
S3	2.5000	2.6045	.105	4.18	2.2263	.030	1
S4	5.0000	4.8517	-.148	-2.97	4.1471	.061	1
S5	10.000	10.010	.010	.105	8.5566	.025	1
S2	.80000	.83547	.035	4.43	.71418	.011	1

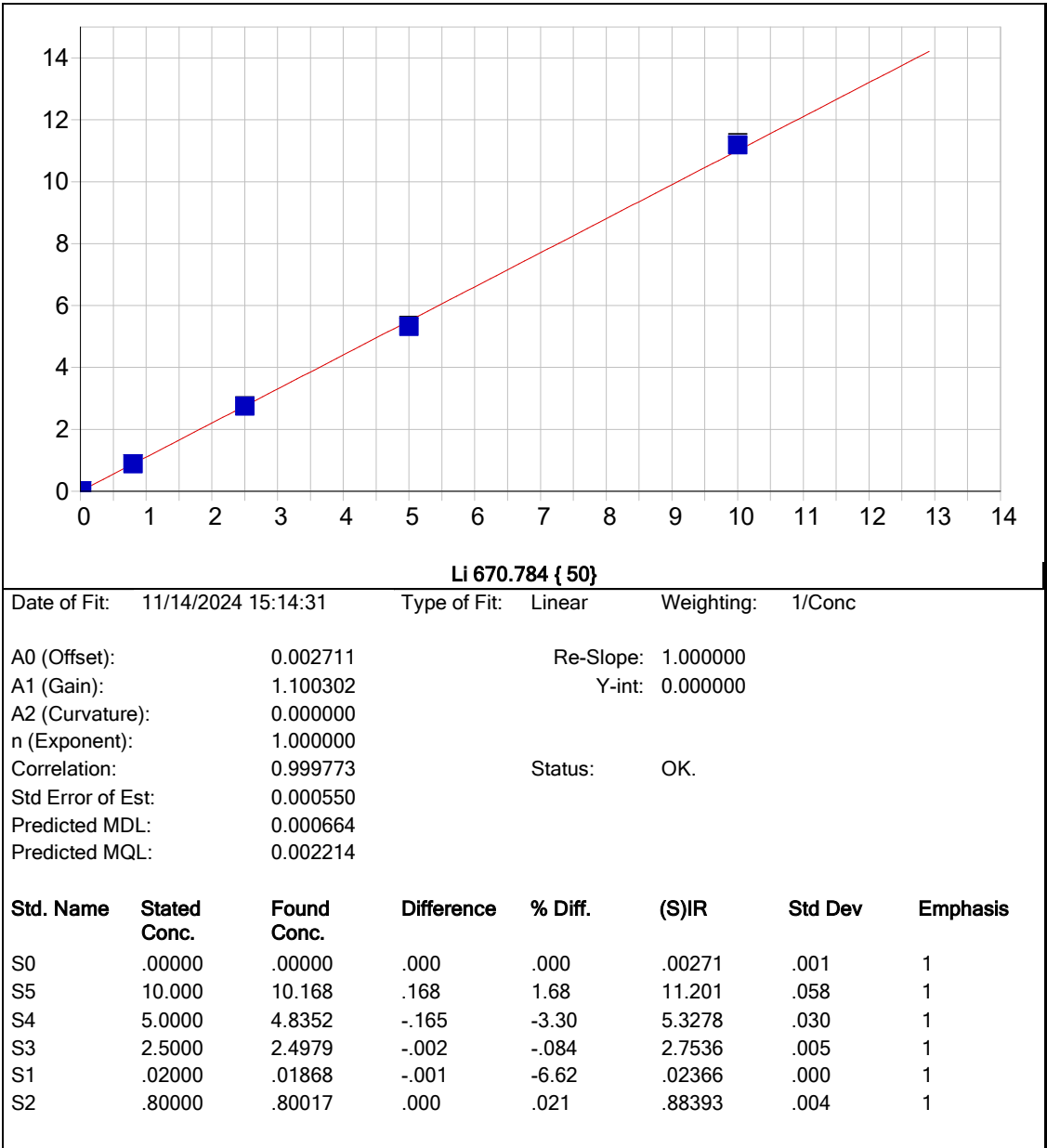


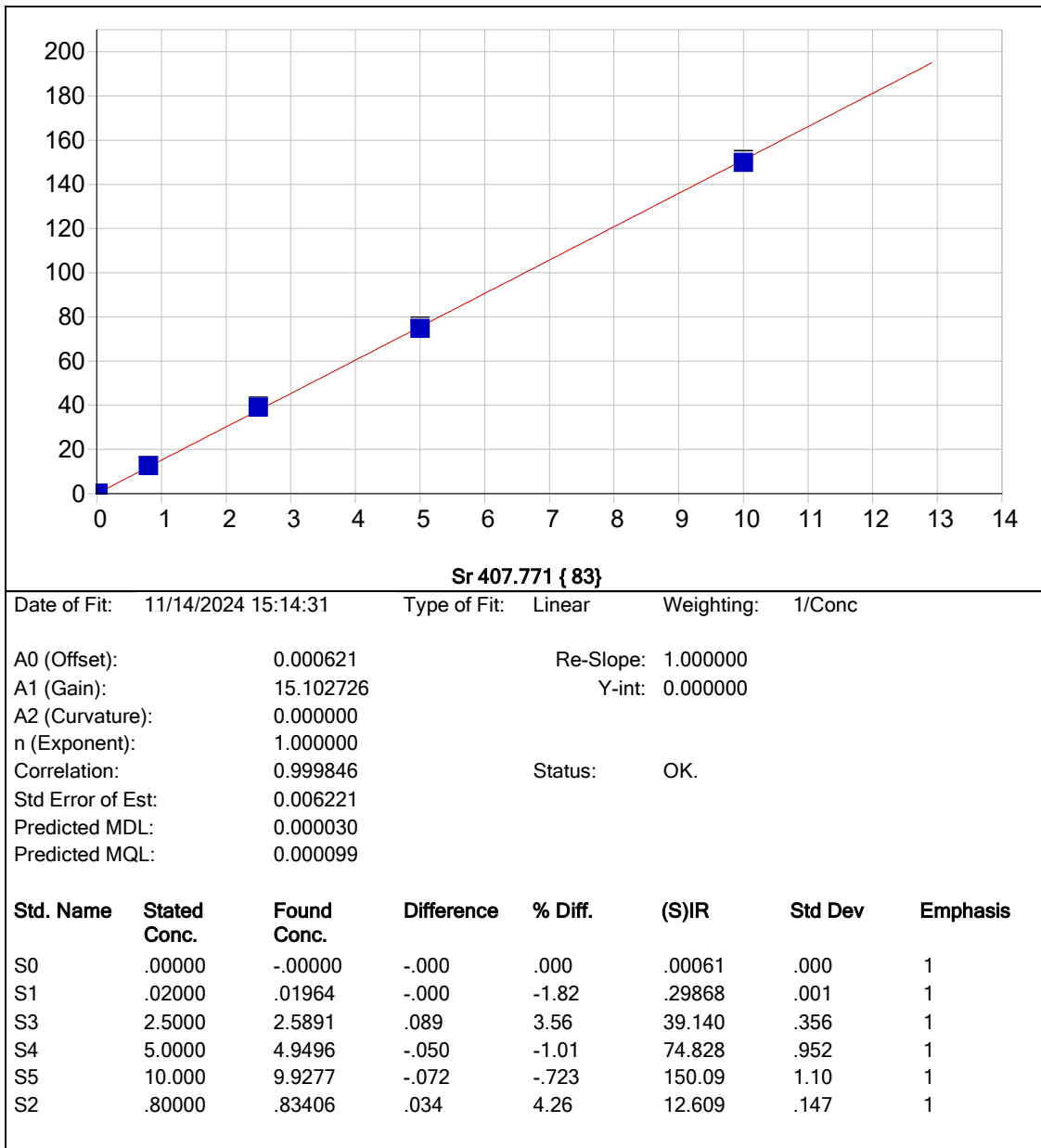


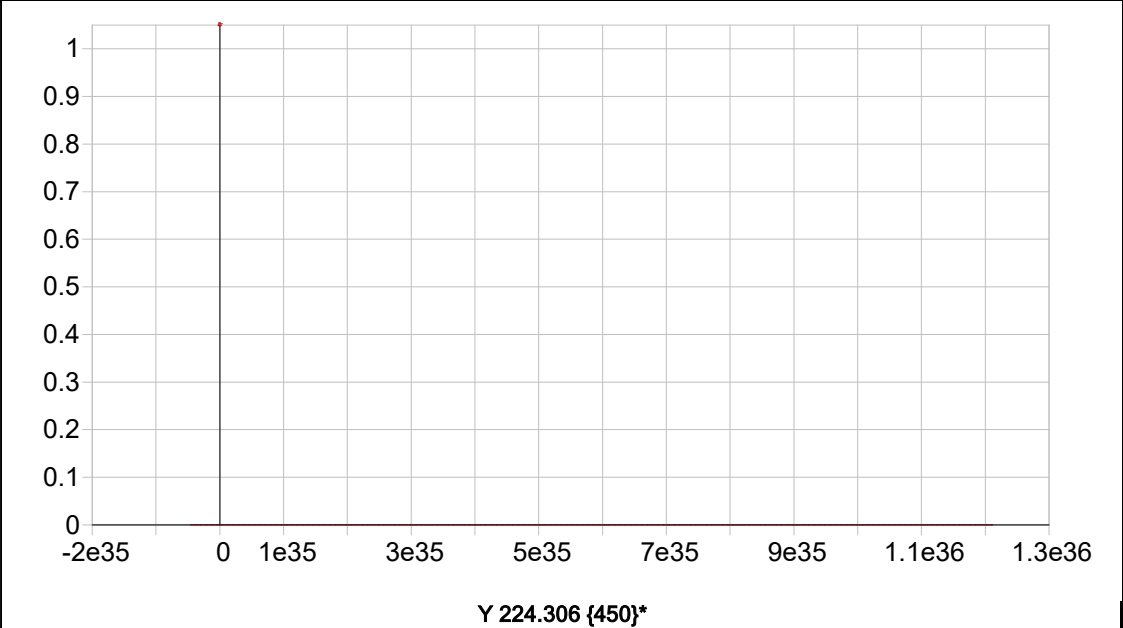








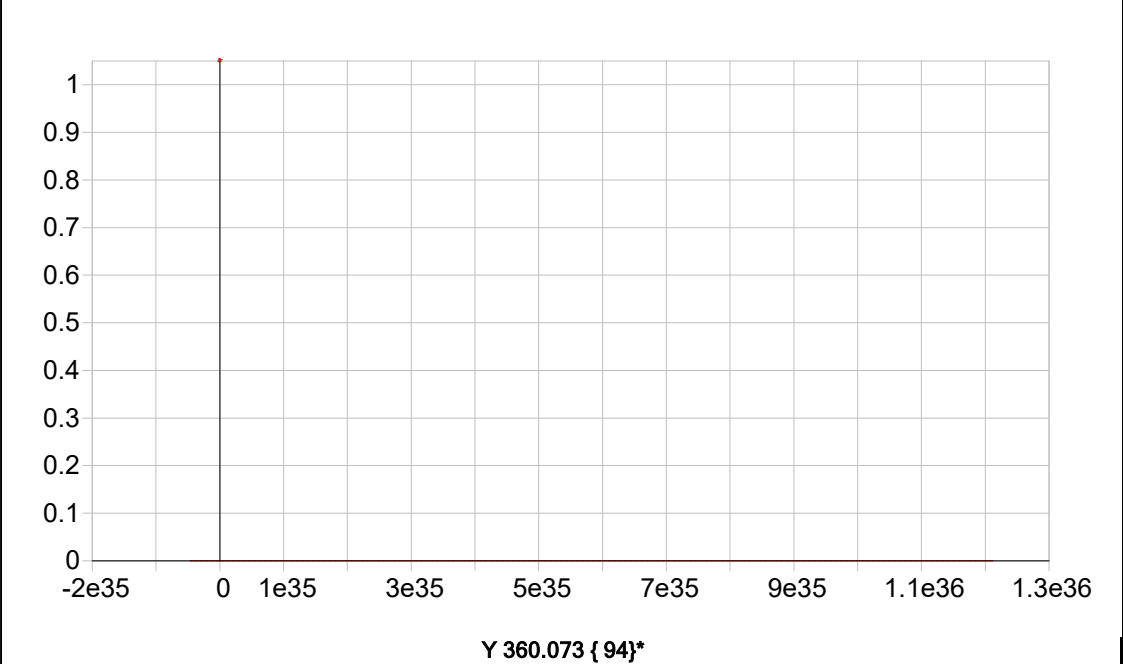




Date of Fit: 11/14/2024 15:14:31 Type of Fit: Linear Weighting: 1/Conc

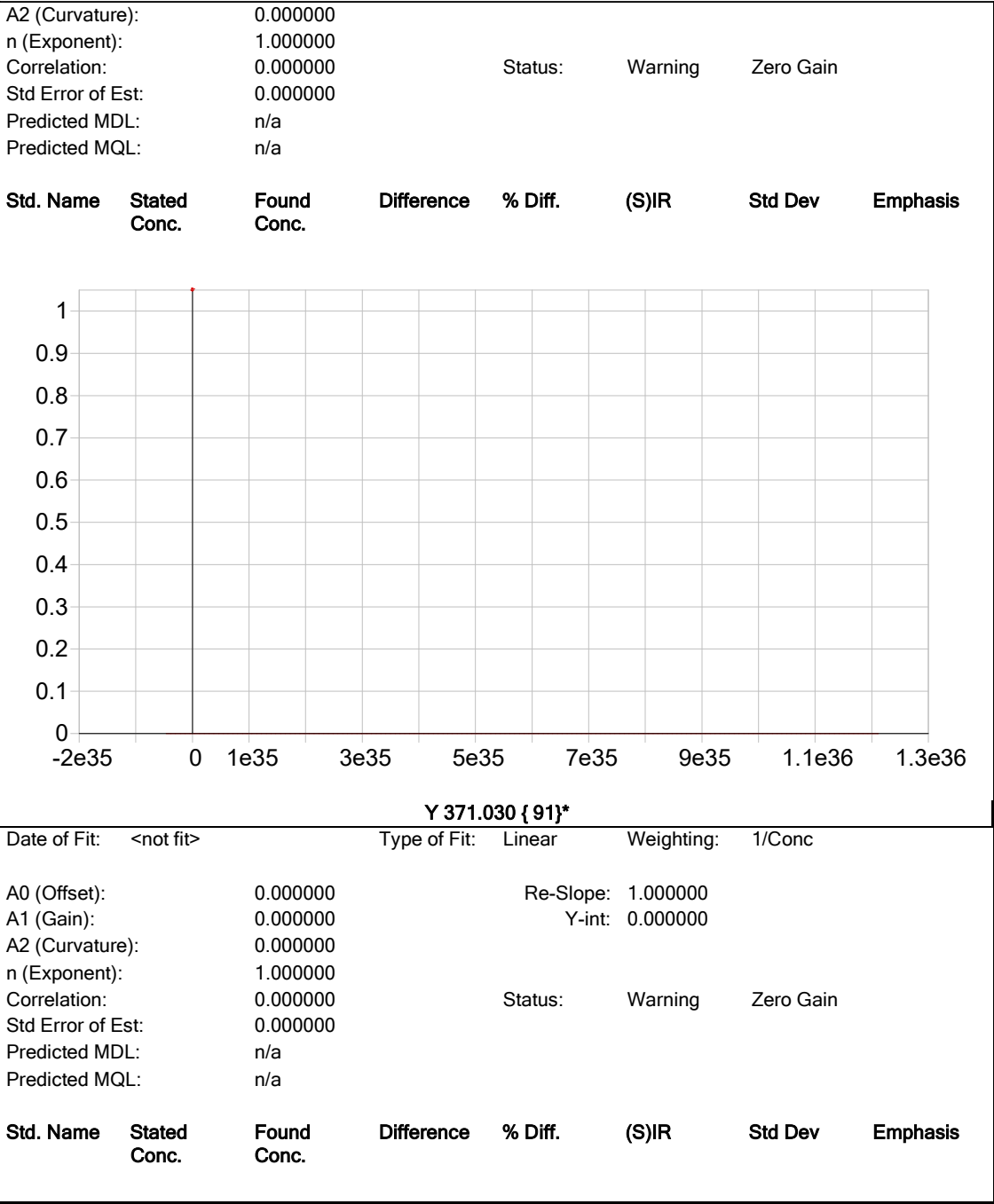
A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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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		Status:	Warning	Zero Gain	
n (Exponent):		1.000000					
Correlation:		0.000000					
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

Sample Name: S0 Acquired: 11/14/2024 13:33:21 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	-.00019	-.00006	-.00025	.00050	.00018	.00033	-.01720	-.00064
Stddev	.00001	.00008	.00011	.00002	.00031	.00032	.00089	.00017
%RSD	5.2920	129.65	43.346	4.4510	174.25	95.963	5.1670	25.802
#1	-.00020	-.00015	-.00014	.00047	.00044	.00050	-.01720	-.00048
#2	-.00019	.00002	-.00036	.00051	-.00016	.00053	-.01631	-.00081
#3	-.00018	-.00006	-.00025	.00051	.00026	-.00004	-.01809	-.00064
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	-.00003	.00164	.00002	-.00007	-.00027	-.00000	-.00001	-.00018
Stddev	.00007	.00008	.00001	.00005	.00042	.00001	.00011	.00003
%RSD	203.97	5.1928	50.682	77.584	156.76	3027.2	1225.1	15.485
#1	.00003	.00173	.00003	-.00013	-.00076	.00001	-.00004	-.00015
#2	-.00003	.00163	.00003	-.00003	-.00005	-.00001	-.00009	-.00019
#3	-.00010	.00156	.00001	-.00005	-.00000	.00001	.00011	-.00020
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	-.00024	-.00106	.01172	-.00003	.00642	.00036	.00141	.00005
Stddev	.00015	.00001	.00018	.00006	.00026	.00011	.00019	.00009
%RSD	63.262	1.1936	1.5743	191.27	4.0548	30.657	13.676	191.18
#1	-.00028	-.00105	.01151	-.00006	.00671	.00024	.00120	.00014
#2	-.00007	-.00108	.01176	.00004	.00622	.00039	.00159	.00003
#3	-.00036	-.00106	.01188	-.00006	.00633	.00045	.00143	-.00003
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	.00059	.00195	.00016	-.00118	.00018	.00271	.00061	
Stddev	.00002	.00009	.00001	.00004	.00003	.00053	.00044	
%RSD	2.8673	4.4766	5.2347	3.6838	16.963	19.538	71.527	
#1	.00058	.00186	.00017	-.00116	.00017	.00215	.00076	
#2	.00059	.00197	.00016	-.00116	.00021	.00280	.00095	
#3	.00061	.00203	.00015	-.00123	.00015	.00319	.00012	

Sample Name: S0 Acquired: 11/14/2024 13:33:21 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	2707.0	62997.	12934.	1993.2	4647.9
Stddev	45.4	256.	238.	6.2	66.9
%RSD	1.6765	.40633	1.8389	.31007	1.4399
#1	2748.8	62702.	13208.	1988.4	4705.7
#2	2713.6	63123.	12776.	1991.0	4663.4
#3	2658.7	63165.	12818.	2000.2	4574.6

Sample Name: S1 Acquired: 11/14/2024 13:37:47 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	.00092	.00265	.00221	.00240	.01014	.00879	.32532	.02152
Stddev	.00010	.00004	.00022	.00004	.00017	.00007	.00142	.00005
%RSD	11.062	1.6782	9.7566	1.6880	1.6339	.79129	.43715	.22675
#1	.00096	.00261	.00196	.00237	.01004	.00880	.32414	.02155
#2	.00080	.00270	.00234	.00244	.01004	.00872	.32493	.02146
#3	.00100	.00265	.00233	.00238	.01033	.00886	.32690	.02154
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	.01529	.08855	.00205	.02594	.01755	.00057	.01371	.02579
Stddev	.00008	.00045	.00004	.00027	.00036	.00003	.00008	.00014
%RSD	.54685	.50444	1.7891	1.0581	2.0287	4.8139	.57345	.55040
#1	.01528	.08817	.00208	.02565	.01718	.00059	.01367	.02571
#2	.01520	.08845	.00207	.02598	.01758	.00057	.01366	.02571
#3	.01537	.08904	.00201	.02620	.01789	.00054	.01380	.02595
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	.02402	.00235	.04526	.00507	.15523	.01373	.04544	.16918
Stddev	.00033	.00005	.00023	.00011	.00206	.00006	.00014	.00141
%RSD	1.3905	1.9857	.50216	2.0971	1.3293	.45951	.30328	.83525
#1	.02364	.00231	.04511	.00517	.15290	.01367	.04532	.16755
#2	.02417	.00240	.04514	.00508	.15595	.01374	.04541	.17012
#3	.02426	.00234	.04552	.00496	.15684	.01379	.04559	.16987
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	.00514	.10794	.00250	-.00062	.00920	.02366	.29868	
Stddev	.00002	.00098	.00002	.00003	.00009	.00026	.00143	
%RSD	.45843	.90581	.90494	5.0622	1.0188	1.0991	.47986	
#1	.00514	.10690	.00248	-.00065	.00909	.02336	.29712	
#2	.00516	.10806	.00252	-.00061	.00926	.02387	.29901	
#3	.00512	.10884	.00251	-.00059	.00925	.02374	.29993	

Sample Name: S1 Acquired: 11/14/2024 13:37:47 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	2662.3	61695.	13192.	1896.8	4517.7
Stddev	20.6	55.	25.	4.6	34.1
%RSD	.77259	.08953	.18752	.24379	.75514
#1	2686.0	61651.	13218.	1902.0	4557.1
#2	2651.3	61676.	13169.	1893.1	4498.0
#3	2649.6	61757.	13187.	1895.4	4498.1

Sample Name: S2 Acquired: 11/14/2024 13:42:09 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	.04668	.06187	.19549	.08154	.17116	.13231	5.6979	.15961
Stddev	.00055	.00113	.00330	.00096	.00248	.00054	.0273	.00050
%RSD	1.1738	1.8223	1.6901	1.1774	1.4510	.40965	.47849	.31509
#1	.04731	.06269	.19929	.08264	.17402	.13266	5.6825	.15986
#2	.04635	.06058	.19329	.08107	.16994	.13259	5.7294	.15993
#3	.04637	.06233	.19390	.08090	.16953	.13169	5.6819	.15903
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	.91418	.18526	.03593	.36537	.17506	.00501	.28176	.05392
Stddev	.01518	.00127	.00075	.00634	.00292	.00009	.00230	.00030
%RSD	1.6610	.68320	2.0926	1.7347	1.6663	1.7755	.81774	.54885
#1	.93171	.18454	.03564	.37269	.17841	.00493	.28085	.05370
#2	.90506	.18672	.03536	.36185	.17362	.00499	.28438	.05426
#3	.90577	.18453	.03678	.36158	.17314	.00510	.28004	.05380
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	.25952	.07369	.08422	.05526	1.5374	.02891	.36303	.71418
Stddev	.00420	.00136	.00116	.00033	.0280	.00062	.00141	.01098
%RSD	1.6190	1.8517	1.3716	.59312	1.8233	2.1324	.38976	1.5369
#1	.26436	.07304	.08363	.05525	1.5214	.02850	.36311	.72681
#2	.25728	.07276	.08348	.05559	1.5211	.02862	.36440	.70871
#3	.25691	.07525	.08555	.05493	1.5698	.02962	.36157	.70701
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	.10181	.45109	.00603	.02292	.01952	.88393	12.609	
Stddev	.00173	.00239	.00011	.00041	.00022	.00384	.147	
%RSD	1.7016	.53052	1.7572	1.7880	1.1427	.43407	1.1694	
#1	.10380	.45035	.00595	.02339	.01978	.88306	12.584	
#2	.10092	.45377	.00600	.02273	.01944	.88813	12.768	
#3	.10070	.44916	.00615	.02264	.01935	.88061	12.476	

Sample Name: S2 Acquired: 11/14/2024 13:42:09 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	2579.5	59018.	12948.	1786.3	4305.0
Stddev	35.8	802.	68.	30.1	62.1
%RSD	1.3862	1.3593	.52770	1.6828	1.4428
#1	2539.2	59399.	12923.	1809.3	4233.7
#2	2591.8	59559.	12896.	1797.2	4334.6
#3	2607.5	58097.	13025.	1752.3	4346.9

Sample Name: S3 Acquired: 11/14/2024 13:46:22 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	.15015	.19162	.62516	.25903	.54335	.41466	17.847	.50381
Stddev	.00180	.00801	.00645	.00361	.00667	.00079	.111	.00239
%RSD	1.1986	4.1802	1.0317	1.3940	1.2278	.19069	.62450	.47392
#1	.15100	.19873	.62726	.26105	.54573	.41544	17.973	.50296
#2	.15138	.19319	.63029	.26119	.54850	.41469	17.761	.50196
#3	.14809	.18294	.61792	.25487	.53582	.41386	17.807	.50650
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	2.9515	.57480	.11269	1.1739	.54754	.01574	.87679	.16959
Stddev	.0358	.00005	.00108	.0137	.00518	.00011	.00269	.00032
%RSD	1.2138	.00908	.96119	1.1668	.94541	.67806	.30654	.18861
#1	2.9612	.57482	.11166	1.1778	.54942	.01561	.87413	.16992
#2	2.9815	.57474	.11258	1.1852	.55152	.01580	.87674	.16957
#3	2.9119	.57484	.11382	1.1587	.54169	.01579	.87951	.16928
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	.83085	.23200	.24915	.17363	4.7683	.09175	1.1332	2.2263
Stddev	.01016	.00238	.00263	.00020	.0498	.00101	.0055	.0296
%RSD	1.2233	1.0276	1.0538	.11774	1.0440	1.0961	.48504	1.3311
#1	.83244	.22968	.24621	.17381	4.7139	.09070	1.1302	2.2382
#2	.84013	.23188	.24995	.17341	4.7795	.09186	1.1300	2.2481
#3	.81999	.23445	.25127	.17368	4.8115	.09270	1.1396	2.1925
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	.32356	1.4068	.01891	.07822	.06457	2.7536	39.140	
Stddev	.00445	.0018	.00017	.00157	.00089	.0050	.356	
%RSD	1.3738	.12629	.90020	2.0011	1.3729	.17998	.91071	
#1	.32542	1.4048	.01873	.07927	.06511	2.7515	38.751	
#2	.32677	1.4075	.01893	.07896	.06506	2.7501	39.450	
#3	.31849	1.4082	.01906	.07642	.06355	2.7593	39.221	

Sample Name: S3 Acquired: 11/14/2024 13:46:22 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	2486.8	56996.	12724.	1749.4	4016.1
Stddev	18.9	460.	7.	16.8	34.2
%RSD	.75868	.80710	.05421	.95802	.85095
#1	2476.4	57509.	12720.	1768.6	3998.5
#2	2475.5	56858.	12732.	1737.3	3994.4
#3	2508.6	56620.	12719.	1742.5	4055.5

Sample Name: S4 Acquired: 11/14/2024 13:50:36 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	.28337	.35718	1.1791	.48272	1.0233	.79023	34.448	.96693
Stddev	.00488	.00457	.0186	.00714	.0143	.00482	.456	.01008
%RSD	1.7230	1.2795	1.5752	1.4791	1.3998	.60943	1.3224	1.0423
#1	.28811	.36178	1.2001	.49010	1.0374	.79550	34.946	.97827
#2	.27836	.35264	1.1648	.47585	1.0087	.78915	34.346	.96350
#3	.28363	.35712	1.1724	.48221	1.0239	.78605	34.052	.95900
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	5.6361	1.0971	.21312	2.2336	1.0174	.03031	1.6835	.32612
Stddev	.0873	.0091	.00412	.0343	.0160	.00063	.0138	.00258
%RSD	1.5485	.82866	1.9310	1.5377	1.5683	2.0877	.82274	.79235
#1	5.7351	1.1074	.20858	2.2722	1.0330	.02961	1.6994	.32851
#2	5.5702	1.0937	.21416	2.2065	1.0011	.03047	1.6749	.32647
#3	5.6030	1.0902	.21661	2.2220	1.0180	.03085	1.6761	.32338
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	1.5748	.44479	.48325	.33299	9.0118	.17631	2.1865	4.1471
Stddev	.0242	.00799	.01158	.00284	.1670	.00420	.0249	.0610
%RSD	1.5337	1.7968	2.3966	.85152	1.8534	2.3827	1.1373	1.4706
#1	1.6017	.43612	.47176	.33625	8.8459	.17195	2.2144	4.2114
#2	1.5550	.44638	.48307	.33163	9.0094	.17665	2.1787	4.0901
#3	1.5678	.45186	.49492	.33108	9.1800	.18034	2.1665	4.1397
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	.61314	2.6973	.03632	.15236	.12552	5.3278	74.828	
Stddev	.00990	.0223	.00093	.00203	.00197	.0301	.952	
%RSD	1.6144	.82694	2.5591	1.3294	1.5706	.56549	1.2716	
#1	.62436	2.7230	.03532	.15450	.12770	5.3616	75.926	
#2	.60564	2.6843	.03648	.15048	.12388	5.3036	74.307	
#3	.60941	2.6845	.03715	.15209	.12497	5.3183	74.251	

Sample Name: S4 Acquired: 11/14/2024 13:50:36 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	2532.4	57285.	12736.	1775.5	3988.7
Stddev	35.5	1112.	131.	40.2	54.3
%RSD	1.4035	1.9404	1.0303	2.2638	1.3608
#1	2497.8	58486.	12588.	1813.0	3931.6
#2	2568.8	57074.	12782.	1780.4	4039.6
#3	2530.5	56293.	12838.	1733.0	3994.9

Sample Name: S5 Acquired: 11/14/2024 13:54:47 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	.59504	.73890	2.4475	1.0117	2.1481	1.6536	70.545	1.9623
Stddev	.00125	.00464	.0054	.0026	.0055	.0059	.511	.0016
%RSD	.21011	.62862	.22224	.25251	.25796	.35782	.72458	.08133

#1	.59398	.74301	2.4434	1.0089	2.1421	1.6479	70.013	1.9637
#2	.59474	.73981	2.4454	1.0122	2.1494	1.6597	70.590	1.9606
#3	.59642	.73386	2.4536	1.0140	2.1530	1.6533	71.033	1.9628

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	11.764	2.2560	.43021	4.6847	2.0868	.06248	3.4643	.67826
Stddev	.028	.0091	.00078	.0088	.0071	.00024	.0119	.00494
%RSD	.23785	.40370	.18182	.18869	.33885	.38818	.34260	.72814

#1	11.745	2.2456	.43101	4.6779	2.0787	.06225	3.4529	.67300
#2	11.750	2.2628	.43015	4.6816	2.0903	.06274	3.4766	.67897
#3	11.796	2.2596	.42945	4.6947	2.0914	.06245	3.4636	.68280

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	3.2804	.91434	1.0114	.68725	17.978	.37051	4.4470	8.5566
Stddev	.0062	.00171	.0097	.00216	.028	.00194	.0071	.0253
%RSD	.18831	.18701	.95551	.31381	.15763	.52383	.15897	.29523

#1	3.2766	.91427	1.0194	.68547	17.995	.37125	4.4392	8.5275
#2	3.2770	.91608	1.0142	.68965	17.993	.37196	4.4489	8.5691
#3	3.2875	.91266	1.0007	.68663	17.945	.36830	4.4530	8.5732

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	1.2711	5.5944	.07734	.32859	.27183	11.201	150.09	
Stddev	.0029	.0156	.00057	.00077	.00065	.058	1.10	
%RSD	.22854	.27807	.73673	.23362	.23841	.52086	.73387	

#1	1.2683	5.5889	.07670	.32793	.27164	11.238	148.82	
#2	1.2709	5.6119	.07780	.32841	.27130	11.230	150.84	
#3	1.2741	5.5823	.07752	.32943	.27255	11.133	150.60	

Sample Name: S5 Acquired: 11/14/2024 13:54:47 Type: Cal
Method: NON EPA-6010-200.7(v2471) 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	2419.4	56267.	12575.	1718.5	3738.2
Stddev	6.0	111.	5.	3.3	3.5
%RSD	.24821	.19759	.03702	.19408	.09350
#1	2426.0	56231.	12572.	1714.8	3741.4
#2	2414.2	56178.	12581.	1719.3	3734.4
#3	2417.9	56391.	12573.	1721.4	3738.8

Sample Name: ICV01 Acquired: 11/14/2024 13:58:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	1.040753	1.056542	1.021279	1.035677	1.003037	2.578757
Stddev	.003341	.011317	.004339	.007445	.004341	.022292
%RSD	.3210003	1.071094	.4248373	.7188520	.4327892	.8644654
#1	1.038162	1.062182	1.022043	1.030396	.998376	2.589229
#2	1.039573	1.043514	1.016608	1.032443	1.003770	2.553157
#3	1.044524	1.063931	1.025184	1.044193	1.006965	2.593886
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5203187	.5208698	.5077460	10.29179	.5328956	.5164801
Stddev	.0047835	.0032310	.0020546	.11150	.0011793	.0018999
%RSD	.9193318	.6203136	.4046572	1.083377	.2213088	.3678454
#1	.5225888	.5229906	.5085365	10.33403	.5338353	.5162319
#2	.5148229	.5171511	.5054135	10.16534	.5332792	.5147166
#3	.5235444	.5224676	.5092879	10.37599	.5315722	.5184919
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5324894	9.959860	.5256059	6.018133	.5196169	.2553345
Stddev	.0020331	.058271	.0059425	.043538	.0018644	.0003682
%RSD	.3818042	.5850548	1.130605	.7234460	.3587989	.1442070
#1	.5310917	9.974302	.5293409	6.042343	.5194457	.2554735
#2	.5315548	9.895726	.5187534	5.967871	.5178441	.2549170
#3	.5348217	10.00955	.5287235	6.044185	.5215610	.2556129
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.487388	.5073655	1.049797	9.812676	2.416927	2.526883
Stddev	.034132	.0045109	.000855	.038381	.017200	.011324
%RSD	.3597610	.8890742	.0814143	.3911398	.7116383	.4481581
#1	9.488577	.5107413	1.049636	9.783186	2.423772	2.519413
#2	9.452676	.5022423	1.050720	9.798770	2.397359	2.521323
#3	9.520909	.5091128	1.049034	9.856072	2.429651	2.539912

Sample Name: ICV01 Acquired: 11/14/2024 13:58:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	2.415467	2.431971	F 1.881348	F .0041965	F -.004017	F -.001817
Stddev	.013046	.023281	.002315	.0013372	.002689	.000384
%RSD	.5400971	.9572787	.1230512	31.86387	66.93658	21.14002
#1	2.413673	2.444414	1.883637	.0052207	-.002257	-.001894
#2	2.403410	2.405113	1.881399	.0046849	-.007111	-.002157
#3	2.429317	2.446386	1.879008	.0026837	-.002682	-.001400

Elem	Sr4077
Units	ppm
Avg	F -.008558
Stddev	.000071
%RSD	.8322054
#1	-.008596
#2	-.008476
#3	-.008603

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2574.213	59354.34	12970.87	1810.632	4248.251
Stddev	11.214	25.89	93.66	6.484	14.497
%RSD	.4356111	.0436124	.7221099	.3581172	.3412351
#1	2586.996	59358.77	12908.67	1803.873	4263.206
#2	2569.607	59377.72	13078.59	1811.222	4247.284
#3	2566.036	59326.52	12925.34	1816.802	4234.262

Sample Name: LLICV01 Acquired: 11/14/2024 14:10:38 Type: Unk
Method: NON EPA-6010-200.7(v2471) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0201145	.0377269	.0107730	.0173854	.0454815	.0948560
Stddev	.0014656	.0019619	.0008822	.0024129	.0008006	.0016782
%RSD	7.286363	5.200192	8.188749	13.87884	1.760271	1.769251
#1	.0217004	.0399911	.0098002	.0151085	.0451554	.0952735
#2	.0188100	.0365322	.0115212	.0199144	.0448954	.0962861
#3	.0198330	.0366574	.0109976	.0171333	.0463937	.0930084
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0946542	.0055629	.0064860	1.918161	.0092316	.0275633
Stddev	.0013745	.0000662	.0000312	.025837	.0000878	.0001483
%RSD	1.452171	1.189661	.4810182	1.346985	.9512340	.5379483
#1	.0952258	.0055550	.0065207	1.915801	.0092760	.0277330
#2	.0930860	.0055010	.0064602	1.893585	.0092884	.0274984
#3	.0956507	.0056327	.0064771	1.945098	.0091305	.0274586
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0205367	.0930039	.0195133	1.912809	.0364736	.0096842
Stddev	.0002341	.0029271	.0001034	.033487	.0002469	.0001248
%RSD	1.140013	3.147288	.5298218	1.750653	.6767789	1.289145
#1	.0205941	.0932317	.0195787	1.877008	.0362097	.0098260
#2	.0202791	.0899696	.0193941	1.918059	.0366987	.0095910
#3	.0207367	.0958105	.0195670	1.943361	.0365125	.0096355
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.602255	.0375651	.0402550	1.777920	.1024576	.1947218
Stddev	.010247	.0002901	.0005176	.023736	.0016488	.0004621
%RSD	.6395635	.7723680	1.285793	1.335063	1.609204	.2373359
#1	1.612276	.0376663	.0401323	1.801403	.1029277	.1951416
#2	1.591795	.0377911	.0408229	1.753938	.1006249	.1942266
#3	1.602694	.0372379	.0398098	1.778419	.1038203	.1947972

Sample Name: LLICV01 Acquired: 11/14/2024 14:10:38 Type: Unk
Method: NON EPA-6010-200.7(v2471) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0361311	F .1851038	F .3098617	F .0142483	F .3344721	.0179935
Stddev	.0002330	.0029479	.0068303	.0003740	.0010230	.0006826
%RSD	.6449582	1.592548	2.204316	2.625182	.3058520	3.793619
#1	.0359024	.1860532	.3177219	.0140309	.3355302	.0180072
#2	.0363682	.1817982	.3064932	.0146802	.3343977	.0173041
#3	.0361227	.1874600	.3053699	.0140337	.3334883	.0186691

Elem	Sr4077
Units	ppm
Avg	.0191471
Stddev	.0003740
%RSD	1.953269
#1	.0192772
#2	.0187254
#3	.0194386

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2707.742	61074.93	13233.64	1877.215	4577.019
Stddev	5.949	140.02	162.12	8.664	2.607
%RSD	.2197073	.2292641	1.225026	.4615544	.0569662
#1	2701.698	60948.67	13195.12	1874.035	4575.068
#2	2713.591	61050.59	13411.54	1870.590	4579.980
#3	2707.938	61225.53	13094.25	1887.020	4576.008

Sample Name: ICB01 Acquired: 11/14/2024 14:36:19 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.001045	-.000125	.0001239	.0000457	-.000025	-.002065	-.001005
Stddev	.001409	.000934	.0001406	.0008240	.000263	.004739	.000546
%RSD	134.8106	749.7920	113.4377	1802.802	1041.792	229.4400	54.32948

#1	.000560	-.001187	.0000336	.0009946	.000233	.003370	-.000430
#2	-.002079	.000569	.0002858	-.000368	-.000016	-.005328	-.001068
#3	-.001617	.000243	.0000522	-.000490	-.000293	-.004238	-.001516

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000176	-.000015	.0052025	.0000032	.0002464	-.000107	.0017024
Stddev	.0000211	.000022	.0053944	.0001662	.0000928	.000153	.0037904
%RSD	119.7876	149.6226	103.6887	5195.097	37.68437	142.3310	222.6512

#1	-.000002	-.000020	-.000347	-.000187	.0001872	.000025	.0048249
#2	.000040	.000009	.010427	.000078	.0001985	-.000072	-.002515
#3	.000014	-.000035	.005528	.000118	.0003534	-.000275	.002797

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000026	.0024052	.0004080	-.000214	-.089282	.0003888	.0006167
Stddev	.000127	.0081476	.0003184	.000050	.026200	.0008906	.0001098
%RSD	479.1162	338.7468	78.05357	23.39169	29.34497	229.0688	17.81040

#1	-.000052	.0055064	.0003043	-.000160	-.119266	-.000254	.0007061
#2	-.000138	-.006838	.0001543	-.000223	-.077774	.000015	.0004941
#3	.000111	.008547	.0007653	-.000258	-.070805	.001405	.0006498

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.027655	-.000843	-.000269	.0121105	-.000461	.0029723	-.000970
Stddev	.005223	.000352	.000245	.0002032	.000058	.0029895	.002942
%RSD	18.88568	41.76738	91.25198	1.678103	12.65468	100.5786	303.3293

#1	-.023205	-.001091	-.000046	.0123341	-.000424	.0022300	-.003497
#2	-.033405	-.000997	-.000230	.0119370	-.000431	.0004238	.002260
#3	-.026355	-.000440	-.000532	.0120606	-.000529	.0062629	-.001673

Sample Name: ICB01 Acquired: 11/14/2024 14:36:19 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.002324	-.000292	-.000073
Stddev	.003462	.000212	.000025
%RSD	148.9611	72.43252	34.70147

#1	.001480	-.000116	-.000102
#2	-.003162	-.000527	-.000060
#3	-.005290	-.000233	-.000057

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2672.209	60898.50	12885.11	1877.453	4613.370
Stddev	15.880	45.50	114.88	9.896	30.332
%RSD	.5942498	.0747206	.8915910	.5271204	.6574879

#1	2659.707	60946.40	12753.02	1888.104	4589.735
#2	2666.843	60893.24	12940.61	1875.713	4602.802
#3	2690.076	60855.85	12961.71	1868.541	4647.573

Sample Name: CRI01 Acquired: 11/14/2024 14:40:53 Type: Unk
Method: NON EPA-6010-200.7(v2471) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0206245	.0374553	.0117549	.0173651	.0471987	.0984942
Stddev	.0024448	.0005137	.0005066	.0016813	.0009744	.0021978
%RSD	11.85405	1.371433	4.309967	9.681871	2.064405	2.231411
#1	.0216523	.0374164	.0112428	.0191776	.0479792	.0978912
#2	.0178336	.0379873	.0117660	.0158565	.0475101	.0966608
#3	.0223876	.0369621	.0122559	.0170613	.0461066	.1009305
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0958683	.0056339	.0065051	1.928864	.0095530	.0275675
Stddev	.0005639	.0000446	.0000951	.007636	.0002495	.0001116
%RSD	.5881937	.7912222	1.462579	.3958861	2.611545	.4048349
#1	.0960186	.0056840	.0066068	1.927156	.0095220	.0276128
#2	.0963417	.0056192	.0064182	1.937210	.0093205	.0276493
#3	.0952444	.0055985	.0064902	1.922227	.0098166	.0274403
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0213358	.0932253	.0195872	1.919863	.0366674	.0097193
Stddev	.0004331	.0018399	.0000583	.014776	.0004260	.0003447
%RSD	2.030105	1.973652	.2975070	.7696239	1.161866	3.546740
#1	.0211844	.0947727	.0195471	1.909582	.0369456	.0100487
#2	.0218243	.0911908	.0195605	1.936795	.0368797	.0093610
#3	.0209988	.0937122	.0196541	1.913211	.0361770	.0097480
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.666401	.0383717	.0415727	1.847336	.0974980	.1973645
Stddev	.011623	.0009524	.0002424	.042251	.0008323	.0000176
%RSD	.6974863	2.481992	.5829983	2.287114	.8536764	.0089343
#1	1.665585	.0389556	.0413375	1.798559	.0978812	.1973810
#2	1.655208	.0388868	.0418217	1.872608	.0980697	.1973459
#3	1.678411	.0372727	.0415589	1.870839	.0965431	.1973666

Sample Name: CRI01 Acquired: 11/14/2024 14:40:53 Type: Unk
Method: NON EPA-6010-200.7(v2471) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0362056	F .1876586	.3174354	.0173451	F .3337882	.0187079
Stddev	.0005041	.0004812	.0071349	.0004733	.0012126	.0004423
%RSD	1.392259	.2564048	2.247683	2.728750	.3632796	2.364017
#1	.0367683	.1880198	.3153331	.0178107	.3337959	.0182143
#2	.0360535	.1878436	.3253853	.0168644	.3325718	.0188415
#3	.0357952	.1871124	.3115879	.0173603	.3349970	.0190680

Elem	Sr4077
Units	ppm
Avg	.0195049
Stddev	.0000702
%RSD	.3601131
#1	.0195467
#2	.0194238
#3	.0195443

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2661.467	60398.21	13166.37	1841.850	4539.472
Stddev	6.823	97.54	77.54	2.729	.921
%RSD	.2563700	.1614872	.5889598	.1481851	.0202950
#1	2667.766	60285.64	13090.81	1840.598	4540.507
#2	2662.415	60451.58	13162.54	1844.981	4538.740
#3	2654.219	60457.42	13245.76	1839.972	4539.171

Sample Name: ICSA01 Acquired: 11/14/2024 14:54:13 Type: Unk
Method: NON EPA-6010-200.7(v2471) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001097	.0126655	.0086081	-.016366	-.000359	257.1152
Stddev	.003018	.0005310	.0017332	.001796	.002927	2.8127
%RSD	275.0761	4.192415	20.13443	10.97137	814.8950	1.093964
#1	-.004540	.0123837	.0105990	-.015279	-.000952	258.7985
#2	.001093	.0123349	.0074359	-.018438	-.002945	258.6790
#3	.000156	.0132780	.0077894	-.015381	.002819	253.8680
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032428	.0012475	.0066403	243.7403	.0554790	.0020712
Stddev	.0002554	.0000640	.0000554	.2878	.0001306	.0001934
%RSD	7.875679	5.128257	.8350626	.1180766	.2353736	9.338682
#1	.0030953	.0011782	.0066712	243.4123	.0556264	.0018480
#2	.0035377	.0013042	.0066735	243.8581	.0553777	.0021762
#3	.0030954	.0012600	.0065763	243.9505	.0554329	.0021895
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004715	98.68613	.0056870	270.5605	.0029016	.0026330
Stddev	.000587	.42915	.0003339	.3934	.0004779	.0000811
%RSD	12.45104	.4348672	5.870494	.1453925	16.46997	3.080935
#1	-.004101	98.35073	.0053076	270.2212	.0023848	.0025691
#2	-.004775	98.53793	.0059358	270.9917	.0033276	.0027242
#3	-.005270	99.16975	.0058177	270.4686	.0029924	.0026056
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0346780	.0066146	.0064767	.0244323	.0174861	.0004918
Stddev	.0178082	.0003156	.0001125	.0238912	.0011493	.0005204
%RSD	51.35309	4.770440	1.737395	97.78505	6.572843	105.8060
#1	.0199204	.0068152	.0065056	-.002799	.0163914	.0007157
#2	.0296555	.0067778	.0065719	.041874	.0173835	-.000103
#3	.0544581	.0062509	.0063525	.034222	.0186832	.000863

Sample Name: ICSA01 Acquired: 11/14/2024 14:54:13 Type: Unk
Method: NON EPA-6010-200.7(v2471) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096913	-.001867	.0195438	-.002752	-.013099	F -.040100
Stddev	.0008475	.000861	.0091262	.002465	.001315	.000318
%RSD	8.745371	46.11766	46.69628	89.57588	10.04195	.7931194
#1	.0101230	-.002738	.0153431	-.004875	-.013235	-.039752
#2	.0102360	-.001016	.0132744	-.003331	-.014342	-.040174
#3	.0087148	-.001849	.0300140	-.000049	-.011722	-.040375

Elem	Sr4077
Units	ppm
Avg	.0042843
Stddev	.0004906
%RSD	11.45012
#1	.0046823
#2	.0044345
#3	.0037362

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2324.127	52916.75	12403.45	1626.466	3514.624
Stddev	2.037	67.71	53.74	8.887	7.323
%RSD	.0876297	.1279602	.4332761	.5463946	.2083645
#1	2323.066	52854.78	12349.56	1618.158	3506.199
#2	2326.475	52989.02	12403.75	1635.836	3519.458
#3	2322.839	52906.43	12457.04	1625.404	3518.216

Sample Name: ICSAB01 Acquired: 11/14/2024 15:18:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1170240	.1027176	.0569447	.0358122	.6286208	271.1007
Stddev	.0050052	.0029909	.0022750	.0025914	.0032444	.2175
%RSD	4.277106	2.911732	3.995064	7.236070	.5161178	.0802151
#1	.1113582	.1054612	.0592544	.0386127	.6265860	270.8900
#2	.1208449	.1031624	.0568735	.0334992	.6269140	271.3244
#3	.1188691	.0995293	.0547061	.0353246	.6323623	271.0877
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5354655	.5212372	1.017153	253.8201	.5677462	.5155825
Stddev	.0019494	.0023101	.001970	.9848	.0012833	.0013073
%RSD	.3640500	.4431895	.1936757	.3880033	.2260322	.2535632
#1	.5333994	.5227655	1.015128	252.8717	.5676406	.5141024
#2	.5372721	.5223664	1.019062	253.7509	.5690790	.5165799
#3	.5357249	.5185797	1.017270	254.8377	.5665189	.5160650
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4930544	102.8050	.5150507	278.9375	1.015635	.2057121
Stddev	.0011298	.7554	.0016494	.9416	.002330	.0001404
%RSD	.2291492	.7347546	.3202359	.3375774	.2293743	.0682350
#1	.4932562	102.0623	.5133586	278.3474	1.012987	.2057219
#2	.4918372	102.7802	.5151399	278.4417	1.017370	.2058474
#3	.4940697	103.5725	.5166537	280.0235	1.016548	.2055671
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005354	.5106727	.8516559	-.000806	.9393985	.9987244
Stddev	.026343	.0018347	.0032525	.008188	.0010873	.0015254
%RSD	492.0620	.3592777	.3819074	1015.687	.1157418	.1527294
#1	-.034913	.5091786	.8544675	.008444	.9405041	.9971209
#2	.003209	.5101190	.8524065	-.007125	.9393608	.9988950
#3	.015643	.5127205	.8480937	-.003737	.9383305	1.000157

Sample Name: ICSAB01 Acquired: 11/14/2024 15:18:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.9731632	.9792259	F .8129879	F .0051084	F -.015909	F -.042496
Stddev	.0038653	.0038539	.0062612	.0024108	.003254	.000234
%RSD	.3971908	.3935632	.7701439	47.19223	20.45560	.5502552
#1	.9701167	.9747790	.8077505	.0025089	-.013012	-.042537
#2	.9775113	.9813032	.8199228	.0072706	-.015286	-.042244
#3	.9718616	.9815955	.8112903	.0055456	-.019430	-.042707

Elem	Sr4077
Units	ppm
Avg	F .0066768
Stddev	.0008857
%RSD	13.26570
#1	.0074045
#2	.0069354
#3	.0056906

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2197.131	51162.92	11966.87	1541.226	3365.521
Stddev	3.095	149.26	14.68	6.188	1.164
%RSD	.1408767	.2917357	.1226654	.4014821	.0345722
#1	2196.334	51228.83	11952.04	1547.028	3366.856
#2	2200.546	51267.88	11981.40	1541.935	3364.716
#3	2194.512	50992.05	11967.17	1534.714	3364.992

Sample Name: CCV01 Acquired: 11/14/2024 15:22:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	5.026618	4.989585	4.978920	5.084127	5.077121	10.22466	10.17585
Stddev	.009982	.063817	.016585	.014291	.005618	.11831	.06359
%RSD	.1985916	1.279007	.3331052	.2810936	.1106528	1.157118	.6248799
#1	5.034905	5.010621	4.998061	5.099198	5.083517	10.08982	10.15688
#2	5.029412	4.917906	4.968807	5.070770	5.074859	10.27308	10.24676
#3	5.015536	5.040229	4.969893	5.082413	5.072987	10.31107	10.12390
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2509113	2.490508	25.21484	1.020298	2.491288	1.272494	5.033426
Stddev	.0025947	.009133	.32638	.007366	.006221	.002208	.028554
%RSD	1.034113	.3667016	1.294385	.7219952	.2497157	.1735072	.5672898
#1	.2481106	2.501053	24.83907	1.028529	2.498465	1.274311	5.044355
#2	.2532334	2.485271	25.37783	1.018041	2.487430	1.273135	5.001021
#3	.2513900	2.485199	25.42762	1.014324	2.487969	1.270037	5.054900
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.489178	25.39112	2.496053	1.259215	25.57365	2.534214	2.564590
Stddev	.030571	.30023	.009293	.009810	.33595	.033308	.028429
%RSD	1.228174	1.182434	.3722969	.7790366	1.313673	1.314325	1.108518
#1	2.454184	25.04552	2.506769	1.270530	25.91892	2.495780	2.597016
#2	2.502651	25.54030	2.491172	1.254007	25.24787	2.552183	2.543949
#3	2.510698	25.58755	2.490218	1.253106	25.55416	2.554677	2.552804
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.37391	4.980484	5.110834	5.000703	5.003663	5.069026	4.982695
Stddev	.22620	.047895	.013636	.016387	.054223	.035472	.012209
%RSD	.8914685	.9616631	.2668094	.3276875	1.083659	.6997796	.2450232
#1	25.59339	4.929378	5.126546	5.019207	4.943111	5.067666	4.981401
#2	25.14154	5.024343	5.103870	4.988027	5.020148	5.034254	4.971185
#3	25.38679	4.987732	5.102086	4.994874	5.047730	5.105159	4.995500

Sample Name: CCV01 Acquired: 11/14/2024 15:22:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.808654	5.038645	5.166788
Stddev	.027557	.039489	.031134
%RSD	.5730700	.7837301	.6025774
#1	4.826771	4.993885	5.137470
#2	4.776941	5.053486	5.199465
#3	4.822251	5.068564	5.163428

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2424.617	55719.73	12547.39	1669.668	3876.298
Stddev	3.773	436.25	117.31	15.967	2.288
%RSD	.1556157	.7829425	.9349340	.9563113	.0590291
#1	2424.810	55216.17	12677.31	1651.548	3875.641
#2	2420.751	55983.41	12449.24	1681.677	3874.411
#3	2428.290	55959.60	12515.62	1675.780	3878.843

Sample Name: CCB01 Acquired: 11/14/2024 15:27:09 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000006	-.000621	-.000421	-.000003	-.000551	-.000342	-.002180
Stddev	.000543	.000407	.000361	.001810	.000240	.003745	.000249
%RSD	8892.488	65.51199	85.86217	61373.53	43.48511	1093.905	11.40348
#1	-.000142	-.000202	-.000436	.002083	-.000503	-.003229	-.002229
#2	-.000469	-.000646	-.000052	-.000935	-.000811	-.001687	-.002400
#3	.000592	-.001015	-.000775	-.001157	-.000339	.003889	-.001910
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000557	.0000055	.0047688	-.000043	.0001281	-.000097	.0022858
Stddev	.0000199	.0000301	.0067924	.000067	.0001032	.000173	.0006458
%RSD	35.72880	549.7210	142.4336	156.8718	80.61557	178.8817	28.25241
#1	.0000753	.0000388	-.002819	-.000120	.0001790	-.000099	.0017231
#2	.0000355	-.000003	.010281	-.000003	.0000092	.000077	.0021433
#3	.0000564	-.000020	.006845	-.000005	.0001959	-.000268	.0029909
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002787	-.004233	.0002502	.0000318	-.127026	-.000309	.0007563
Stddev	.0001765	.007504	.0000422	.0000422	.008651	.000878	.0001107
%RSD	63.32930	177.2684	16.85614	132.5034	6.810247	284.4496	14.64240
#1	.0002229	-.007818	.0002680	.0000625	-.136782	-.000871	.0007860
#2	.0004764	.004391	.0002021	.0000493	-.120291	.000703	.0006337
#3	.0001369	-.009272	.0002806	-.000016	-.124005	-.000758	.0008491
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.049145	.0054074	-.000050	.0114820	.0000533	.0043042	-.001695
Stddev	.018528	.0005208	.000047	.0005131	.0001379	.0022689	.001279
%RSD	37.70141	9.630911	94.03243	4.468900	259.0556	52.71220	75.45908
#1	-.058533	.0058638	.000004	.0119548	-.000099	.0034899	-.000636
#2	-.027801	.0048401	-.000069	.0109363	.000169	.0025549	-.001333
#3	-.061099	.0055182	-.000084	.0115549	.000090	.0068679	-.003116

Sample Name: CCB01 Acquired: 11/14/2024 15:27:09 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000238	-.000555	-.000005
Stddev	.000215	.000207	.000018
%RSD	90.52117	37.26005	394.6189

#1	-.000347	-.000523	.000012
#2	-.000376	-.000776	-.000024
#3	.000010	-.000366	-.000002

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2639.254	61497.16	13167.10	1842.160	4606.991
Stddev	7.049	111.38	37.88	5.337	10.152
%RSD	.2670955	.1811192	.2876857	.2896901	.2203525

#1	2641.325	61372.06	13126.59	1836.592	4613.613
#2	2631.402	61533.87	13173.07	1842.657	4595.304
#3	2645.036	61585.56	13201.65	1847.231	4612.057

Sample Name: P4756-01 Acquired: 11/14/2024 15:31:30 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1364469	-.020856	.8834550	-.056199	-.000673	163.0947
Stddev	.0006509	.003239	.0044226	.002065	.000378	.3097
%RSD	.4770744	15.53276	.5005985	3.674658	56.19960	.1898658
#1	.1367577	-.024302	.8807557	-.055353	-.000237	163.0681
#2	.1356988	-.020392	.8810503	-.058552	-.000876	163.4168
#3	.1368841	-.017873	.8885589	-.054691	-.000907	162.7991
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.357447	.0185451	.0459836	36.81756	.3336993	.2033489
Stddev	.004865	.0001385	.0002271	.17576	.0019766	.0014225
%RSD	.3584085	.7468976	.4939560	.4773908	.5923428	.6995235
#1	1.356818	.0183999	.0458771	36.73053	.3324331	.2019464
#2	1.352927	.0185596	.0458293	36.70230	.3359770	.2033099
#3	1.362597	.0186758	.0462444	37.01986	.3326878	.2047905
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.147226	299.4555	9.823776	92.12635	.4261277	.0098690
Stddev	.002609	3.5512	.049359	.18866	.0017834	.0003737
%RSD	.2274447	1.185879	.5024441	.2047809	.4185005	3.786320
#1	1.145109	295.5278	9.786950	91.96071	.4241372	.0095470
#2	1.146427	300.3993	9.804517	92.08663	.4266660	.0097814
#3	1.150141	302.4395	9.879861	92.33170	.4275799	.0102787
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.888719	.5081611	1.811452	32.89883	.1105455	.0056544
Stddev	.021470	.0018844	.008618	.11480	.0052404	.0003253
%RSD	.3645882	.3708265	.4757312	.3489342	4.740442	5.753146
#1	5.868122	.5061212	1.809805	32.79873	.1048381	.0052827
#2	5.910966	.5085253	1.820775	33.02414	.1116584	.0058873
#3	5.887068	.5098369	1.803777	32.87363	.1151400	.0057932

Sample Name: P4756-01 Acquired: 11/14/2024 15:31:30 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0633043	7.789453	F 12.03819	F 12.10596	.9442667	.3298512
Stddev	.0019915	.028489	.05243	.10441	.0089397	.0008083
%RSD	3.145874	.3657363	.4354998	.8624865	.9467371	.2450363
#1	.0619233	7.772314	11.98257	12.00438	.9339911	.3295872
#2	.0655871	7.773707	12.08669	12.10051	.9485518	.3292080
#3	.0624025	7.822340	12.04531	12.21299	.9502572	.3307584

Elem	Sr4077
Units	ppm
Avg	-.133044
Stddev	.003255
%RSD	2.446505
#1	-.129341
#2	-.134342
#3	-.135450

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3483.168	80988.71	18645.27	2454.878	3783.182
Stddev	3.166	321.89	37.29	9.372	10.891
%RSD	.0909048	.3974547	.2000076	.3817556	.2878771
#1	3483.551	81114.30	18604.53	2458.481	3789.675
#2	3486.126	80622.96	18653.56	2444.240	3789.261
#3	3479.828	81228.88	18677.72	2461.913	3770.608

Sample Name: CCV02 Acquired: 11/14/2024 15:35:51 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.659560	4.725473	4.682548	4.664714	4.685748	9.351198	9.375353
Stddev	.009208	.088994	.005782	.012818	.016413	.012114	.039238
%RSD	.1976095	1.883291	.1234854	.2747781	.3502683	.1295402	.4185281
#1	4.658245	4.826952	4.676935	4.659274	4.686808	9.339048	9.403619
#2	4.651080	4.688753	4.682221	4.655514	4.668831	9.351273	9.391887
#3	4.669354	4.660714	4.688486	4.679355	4.701605	9.363274	9.330554
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2381978	2.336950	23.46706	.9520456	2.335813	1.183973	4.674543
Stddev	.0008760	.005211	.03411	.0101803	.003936	.004478	.025876
%RSD	.3677655	.2229686	.1453433	1.069310	.1684965	.3782537	.5535569
#1	.2385367	2.332314	23.46568	.9638001	2.331687	1.180631	4.702937
#2	.2388538	2.342589	23.50183	.9460603	2.339525	1.182226	4.668402
#3	.2372030	2.335946	23.43366	.9462762	2.336226	1.189062	4.652289
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.346975	23.25704	2.339901	1.175463	23.35979	2.344081	2.368635
Stddev	.012890	.04990	.003718	.007068	.15990	.002793	.010350
%RSD	.5492375	.2145799	.1589014	.6012731	.6845043	.1191712	.4369605
#1	2.349728	23.30625	2.336063	1.183610	23.51922	2.347024	2.378700
#2	2.358266	23.25841	2.343486	1.171804	23.36073	2.343752	2.369184
#3	2.332930	23.20647	2.340155	1.170975	23.19943	2.341466	2.358022
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.03185	4.728829	4.739409	4.678525	4.644886	4.583608	4.787429
Stddev	.11492	.013915	.009362	.011624	.015791	.008711	.027510
%RSD	.4989737	.2942607	.1975287	.2484442	.3399703	.1900367	.5746227
#1	23.16452	4.729643	4.740141	4.678569	4.641379	4.588075	4.812032
#2	22.96784	4.742319	4.729703	4.690126	4.662136	4.573571	4.792529
#3	22.96317	4.714524	4.748384	4.666879	4.631143	4.589180	4.757727

Sample Name: CCV02 Acquired: 11/14/2024 15:35:51 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.529238	4.636121	4.736352
Stddev	.022455	.004446	.011809
%RSD	.4957811	.0959004	.2493218

#1	4.554169	4.633889	4.741924
#2	4.522944	4.641241	4.722788
#3	4.510602	4.633233	4.744344

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2634.837	60759.80	13414.81	1884.117	4179.734
Stddev	14.467	446.90	50.75	12.123	13.620
%RSD	.5490830	.7355191	.3783445	.6434298	.3258552

#1	2640.073	60246.49	13377.17	1871.098	4188.060
#2	2645.958	60970.65	13394.72	1886.170	4187.125
#3	2618.481	61062.28	13472.53	1895.082	4164.016

Sample Name: CCB02 Acquired: 11/14/2024 15:40:02 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000086	-.000903	.0002771	-.001073	-.000240	.0006791	-.001099
Stddev	.002624	.001088	.0013399	.000256	.000573	.0046688	.000229
%RSD	3035.580	120.4980	483.5116	23.80992	238.9174	687.5028	20.86307

#1	-.001254	-.002158	.0008835	-.000779	.000208	.0050784	-.000841
#2	-.001924	-.000229	-.001259	-.001201	-.000885	-.004219	-.001281
#3	.002919	-.000321	.001207	-.001240	-.000043	.001178	-.001174

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000074	-.000047	.0090637	.0000451	.0001535	-.000080	.0007483
Stddev	.0000426	.000033	.0031807	.0002118	.0000666	.000134	.0053492
%RSD	575.1575	69.13147	35.09303	469.4954	43.36617	166.5425	714.8731

#1	.0000405	-.000029	.0096984	.0002739	.0000769	-.000227	.0068586
#2	-.000041	-.000085	.0056135	.0000053	.0001865	.000034	-.001524
#3	.000022	-.000028	.0118792	-.000144	.0001971	-.000048	-.003090

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001549	.0080250	.0002014	-.000049	-.161140	.0006748	.0007903
Stddev	.0001835	.0036847	.0001519	.000090	.016186	.0010013	.0001849
%RSD	118.4612	45.91591	75.41887	185.2809	10.04469	148.3821	23.39724

#1	.0003568	.0044370	.0002670	-.000113	-.178087	.0016168	.0009845
#2	.0001098	.0117994	.0000277	.000055	-.159494	-.000377	.0006164
#3	-.000002	.0078384	.0003094	-.000088	-.145840	.000784	.0007699

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.030424	.0063718	-.000061	.0034216	-.000185	.0012846	-.003629
Stddev	.017926	.0006380	.000083	.0001760	.000320	.0034521	.002030
%RSD	58.92191	10.01284	135.6297	5.143031	172.6994	268.7230	55.94503

#1	-.035506	.0071011	.000027	.0032467	.000184	-.000044	-.005368
#2	-.045261	.0059171	-.000072	.0035987	-.000387	-.001305	-.004121
#3	-.010505	.0060972	-.000139	.0034195	-.000353	.005204	-.001398

Sample Name: CCB02 Acquired: 11/14/2024 15:40:02 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000042	.0000065	-.000019
Stddev	.001019	.0002800	.000017
%RSD	2416.101	4308.314	88.62134

#1	-.000612	-.000316	-.000035
#2	.001134	.000192	-.000021
#3	-.000649	.000143	-.000001

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2767.750	62614.25	13387.12	1921.658	4800.170
Stddev	27.134	116.73	168.52	7.825	47.894
%RSD	.9803678	.1864234	1.258848	.4071987	.9977622

#1	2736.581	62748.93	13192.83	1930.508	4745.911
#2	2780.572	62551.50	13474.76	1918.810	4818.039
#3	2786.098	62542.31	13493.76	1915.656	4836.561

Sample Name: PB164797BL Acquired: 11/14/2024 15:44:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.002346	-.000801	-.000347	-.001623	-.000152	.0011578	-.001470
Stddev	.001848	.001103	.001367	.001024	.000901	.0043951	.000397
%RSD	78.79171	137.6492	394.4156	63.10050	594.1485	379.6103	27.02353

#1	-.002177	-.001533	-.001924	-.000602	-.001093	.0057020	-.001041
#2	-.004273	-.001337	.000481	-.001617	-.000063	.0008426	-.001825
#3	-.000588	.000467	.000403	-.002650	.000701	-.003071	-.001546

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000082	-.000022	.0013396	.0000513	.0001125	-.000196	.0012947
Stddev	.0000564	.000071	.0025347	.0002137	.0000313	.000163	.0021143
%RSD	684.1339	322.5980	189.2066	416.7404	27.85674	83.43192	163.2979

#1	.0000692	.000036	-.000820	.0002901	.0001478	-.000368	.0036228
#2	-.000042	-.000001	.004130	-.000015	.0000880	-.000175	.0007674
#3	-.000002	-.000101	.000709	-.000122	.0001017	-.000043	-.000506

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000084	.0007981	.0002683	.0000945	-.154924	-.000312	.0005389
Stddev	.0001264	.0050394	.0003121	.0000942	.011284	.000944	.0000879
%RSD	1504.517	631.4458	116.3051	99.63352	7.283702	302.5124	16.30758

#1	.0001522	-.003998	.0005089	.0000308	-.166570	-.000209	.0006312
#2	-.000042	.000343	.0003804	.0002027	-.154161	-.001303	.0004562
#3	-.000085	.006050	-.000084	.0000500	-.144040	.000576	.0005294

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.040081	.0027750	-.000001	.0115791	-.000229	.0038849	.0002822
Stddev	.024340	.0003193	.000077	.0008491	.000163	.0031296	.0010525
%RSD	60.72726	11.50717	5521.001	7.332643	71.26038	80.55645	373.0089

#1	-.031538	.0024259	.000045	.0114760	-.000086	.0018296	-.000195
#2	-.021164	.0028467	-.000091	.0107864	-.000407	.0023385	-.000447
#3	-.067541	.0030523	.000041	.0124751	-.000194	.0074867	.001489

Sample Name: PB164797BL Acquired: 11/14/2024 15:44:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0005355	.0002652	-.000050
Stddev	.0009038	.0001258	.000014
%RSD	168.7759	47.44118	27.39094
#1	-.000234	.0004045	-.000066
#2	.001531	.0002313	-.000041
#3	.000310	.0001598	-.000043

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2666.316	61296.26	13300.67	1856.034	4621.101
Stddev	10.178	227.55	51.45	4.465	19.268
%RSD	.3817185	.3712335	.3868437	.2405860	.4169531
#1	2664.880	61512.79	13241.91	1860.266	4612.977
#2	2656.932	61316.89	13322.44	1856.469	4607.226
#3	2677.136	61059.09	13337.66	1851.367	4643.100

Sample Name: PB164797BS Acquired: 11/14/2024 15:48:57 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7830254	1.988747	.9617128	1.931158	.7719417	1.969820
Stddev	.0013357	.026930	.0019862	.004094	.0044885	.005606
%RSD	.1705792	1.354109	.2065295	.2119740	.5814599	.2845863
#1	.7842491	2.014312	.9633610	1.930092	.7700147	1.973799
#2	.7832264	1.991294	.9622699	1.927703	.7687385	1.972251
#3	.7816006	1.960633	.9595075	1.935679	.7770720	1.963409
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1943008	.1996699	.1887099	1.017791	.3955685	.1920537
Stddev	.0010571	.0009950	.0000776	.000699	.0017754	.0003988
%RSD	.5440332	.4983196	.0411423	.0687042	.4488267	.2076471
#1	.1930828	.2000973	.1887033	1.018583	.3938269	.1924685
#2	.1948407	.1985326	.1887907	1.017260	.3955027	.1916731
#3	.1949789	.2003797	.1886358	1.017529	.3973758	.1920197
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3067239	2.885043	.1994720	1.939920	.4841101	.0725583
Stddev	.0003607	.024963	.0015236	.013956	.0001665	.0002116
%RSD	.1175927	.8652515	.7637989	.7194243	.0343819	.2916445
#1	.3065766	2.858493	.1981683	1.926826	.4839274	.0725800
#2	.3064602	2.888599	.1991009	1.938333	.4842531	.0723367
#3	.3071349	2.908038	.2011468	1.954602	.4841497	.0727582
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.618294	.2967200	.2042951	9.389033	.2926016	.4023791
Stddev	.024446	.0009828	.0004192	.061492	.0012968	.0009715
%RSD	.9336777	.3312345	.2051844	.6549377	.4431889	.2414360
#1	2.590126	.2961254	.2043399	9.318100	.2917707	.4024393
#2	2.633974	.2961802	.2038553	9.427278	.2919382	.4013789
#3	2.630782	.2978544	.2046901	9.421721	.2940958	.4033190

Sample Name: PB164797BS Acquired: 11/14/2024 15:48:57 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6773055	.1942582	F .6890943	5.472664	F -.009678	.2047324
Stddev	.0009343	.0017337	.0080810	.027088	.003668	.0021406
%RSD	.1379435	.8924925	1.172703	.4949611	37.89858	1.045556
#1	.6783504	.1926654	.6950464	5.496537	-.006441	.2025482
#2	.6765507	.1940043	.6798947	5.478228	-.008932	.2068265
#3	.6770154	.1961049	.6923418	5.443226	-.013662	.2048226

Elem	Sr4077
Units	ppm
Avg	.2019256
Stddev	.0006589
%RSD	.3263144
#1	.2012160
#2	.2025181
#3	.2020429

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2605.813	60259.49	12984.78	1831.980	4375.588
Stddev	6.752	41.97	20.52	5.408	5.977
%RSD	.2591046	.0696560	.1580114	.2952061	.1366040
#1	2611.136	60296.52	12962.00	1829.732	4382.414
#2	2608.085	60213.89	13001.82	1828.059	4373.055
#3	2598.218	60268.06	12990.51	1838.150	4371.294

Sample Name: PB164935BL Acquired: 11/14/2024 15:52:57 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000761	-.001644	-.000661	-.001231	-.000301	.0100990	-.001435
Stddev	.002834	.000705	.000492	.001399	.001030	.0028370	.000383
%RSD	372.3143	42.85981	74.40833	113.6781	342.7807	28.09222	26.66627
#1	.002486	-.001446	-.001005	-.000913	.000868	.0103792	-.001874
#2	-.002030	-.002426	-.000880	-.000018	-.000693	.0071323	-.001176
#3	-.002740	-.001060	-.000098	-.002762	-.001077	.0127855	-.001255
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000653	-.000008	-.001426	.0001414	.0002285	.0001355	.0058093
Stddev	.0000186	.000037	.006538	.0003033	.0000685	.0002347	.0025291
%RSD	28.48381	437.4133	458.5844	214.5219	29.98228	173.1392	43.53529
#1	.0000732	.000027	-.006064	-.000107	.0001505	.0003353	.0067017
#2	.0000788	-.000005	.006052	.000052	.0002788	.0001942	.0029550
#3	.0000441	-.000046	-.004265	.000479	.0002563	-.000123	.0077713
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000043	.0015661	.0003883	-.000088	-.170316	.0010946	.0007224
Stddev	.000017	.0003942	.0001793	.000106	.001322	.0005067	.0001473
%RSD	39.79790	25.17107	46.17218	120.0044	.7764195	46.28836	20.38389
#1	-.000053	.0018208	.0001935	-.000006	-.169280	.0007817	.0005749
#2	-.000051	.0011120	.0005464	-.000208	-.171806	.0016791	.0007227
#3	-.000023	.0017654	.0004250	-.000051	-.169863	.0008229	.0008695
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.036182	.0017160	-.000118	.0112943	-.000238	.0036826	-.000538
Stddev	.016237	.0006272	.000101	.0005062	.000336	.0031974	.000976
%RSD	44.87635	36.54934	86.03144	4.481824	141.1293	86.82409	181.4594
#1	-.054199	.0011541	-.000229	.0115533	-.000283	.0004166	-.000027
#2	-.031667	.0023927	-.000093	.0116185	-.000549	.0068067	-.001663
#3	-.022680	.0016013	-.000031	.0107110	.000118	.0038246	.000077

Sample Name: PB164935BL Acquired: 11/14/2024 15:52:57 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.001045	-.000578	-.000057
Stddev	.001907	.000245	.000038
%RSD	182.5384	42.45504	65.54895

#1	.000593	-.000314	-.000027
#2	-.003139	-.000622	-.000046
#3	-.000589	-.000798	-.000099

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2760.031	62300.01	13556.53	1912.947	4778.673
Stddev	7.632	186.76	35.54	12.193	14.840
%RSD	.2765031	.2997685	.2621457	.6374164	.3105387

#1	2768.276	62162.36	13553.74	1911.475	4795.666
#2	2753.215	62225.08	13522.47	1901.557	4768.268
#3	2758.602	62512.60	13593.38	1925.810	4772.084

Sample Name: PB164935BS Acquired: 11/14/2024 15:57:18 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7285959	1.859915	.9043858	1.769053	.7132726	1.841085
Stddev	.0017302	.050936	.0044028	.004395	.0028121	.007785
%RSD	.2374758	2.738615	.4868291	.2484628	.3942558	.4228716
#1	.7290107	1.801924	.8999721	1.764492	.7114131	1.834526
#2	.7300810	1.880411	.9044077	1.773262	.7165077	1.839040
#3	.7266959	1.897411	.9087777	1.769405	.7118970	1.849689
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1859134	.1925330	.1773759	.9768529	.3724293	.1807084
Stddev	.0002139	.0008341	.0007585	.0083472	.0006427	.0010900
%RSD	.1150428	.4331997	.4276327	.8544961	.1725674	.6032060
#1	.1857107	.1929437	.1768945	.9672691	.3723733	.1795822
#2	.1861369	.1915732	.1769829	.9825329	.3730981	.1807848
#3	.1858926	.1930820	.1782503	.9807566	.3718164	.1817582
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2855677	2.731195	.1922585	1.840734	.4547732	.0688634
Stddev	.0014714	.015199	.0012770	.010796	.0017289	.0003430
%RSD	.5152432	.5564919	.6642270	.5865093	.3801679	.4981300
#1	.2841197	2.718857	.1910921	1.841676	.4530204	.0692453
#2	.2855220	2.748173	.1920604	1.829497	.4548221	.0685815
#3	.2870613	2.726554	.1936230	1.851028	.4564771	.0687633
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.451721	.2801646	.1920158	8.775131	.2809671	.3742267
Stddev	.012427	.0026900	.0009053	.021990	.0011450	.0006831
%RSD	.5068783	.9601409	.4714928	.2505890	.4075274	.1825270
#1	2.439579	.2785917	.1910387	8.749868	.2821515	.3734619
#2	2.464415	.2786315	.1921824	8.785557	.2798660	.3744421
#3	2.451168	.2832706	.1928263	8.789968	.2808836	.3747761

Sample Name: PB164935BS Acquired: 11/14/2024 15:57:18 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6363792	.1848456	F .6389071	5.220821	F -.008649	.1917975
Stddev	.0029954	.0008794	.0084268	.049607	.000476	.0005661
%RSD	.4706969	.4757424	1.318942	.9501822	5.504412	.2951775
#1	.6335315	.1840535	.6301292	5.169023	-.008234	.1917254
#2	.6361027	.1846913	.6396596	5.225538	-.008544	.1923962
#3	.6395032	.1857919	.6469324	5.267901	-.009168	.1912709

Elem	Sr4077
Units	ppm
Avg	.1909789
Stddev	.0004018
%RSD	.2103782
#1	.1912137
#2	.1905149
#3	.1912080

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2736.786	62084.48	13180.87	1935.801	4567.860
Stddev	4.580	104.72	24.50	8.684	5.926
%RSD	.1673501	.1686674	.1858664	.4486137	.1297391
#1	2734.462	62156.16	13165.45	1932.885	4574.004
#2	2733.833	61964.31	13209.12	1928.950	4567.398
#3	2742.062	62132.99	13168.05	1945.568	4562.179

Sample Name: PB164869TB Acquired: 11/14/2024 16:01:18 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.006866	-.007412	-.000477	.0022452	.0004337	.0097454
Stddev	.000668	.001535	.000548	.0015652	.0003305	.0043647
%RSD	9.732947	20.70216	114.7992	69.71477	76.19054	44.78726
#1	-.006933	-.008312	-.000913	.0017621	.0004649	.0049636
#2	-.007498	-.005641	.000138	.0039950	.0000888	.0107575
#3	-.006167	-.008284	-.000657	.0009785	.0007475	.0135151
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001370	-.000181	-.000259	-.003499	.0002340	-.000207
Stddev	.000085	.000044	.000029	.006077	.0001241	.000205
%RSD	6.221877	24.37737	11.35132	173.6889	53.02225	99.48310
#1	-.001453	-.000221	-.000262	-.009974	.0002526	-.000431
#2	-.001283	-.000187	-.000286	-.002602	.0001017	-.000160
#3	-.001375	-.000134	-.000228	.002080	.0003477	-.000029
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005889	.0293935	.0006910	.0004503	.0002159	-.000029
Stddev	.0001704	.0030620	.0002384	.0028777	.0001033	.000248
%RSD	28.93014	10.41724	34.50371	639.0399	47.85106	844.5471
#1	.0007253	.0270539	.0004770	-.002301	.0002298	-.000300
#2	.0006436	.0282676	.0009480	.003439	.0001063	.000022
#3	.0003979	.0328591	.0006480	.000213	.0003115	.000189
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.454273	-.000259	.0003474	-.102242	.0001007	.0002343
Stddev	.003028	.000438	.0001507	.012786	.0001112	.0000590
%RSD	.6664946	169.2028	43.38648	12.50566	110.4063	25.18694
#1	-.451672	-.000046	.0002011	-.110308	.0002288	.0002567
#2	-.453551	.000032	.0003388	-.108919	.0000447	.0002789
#3	-.457597	-.000762	.0005022	-.087500	.0000287	.0001674

Sample Name: PB164869TB Acquired: 11/14/2024 16:01:18 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.003334	-.000170	.0090624	.0053930	F 13.76595	-.001252
Stddev	.000668	.000139	.0016694	.0009137	.05900	.000346
%RSD	20.03250	81.82247	18.42074	16.94211	.4285607	27.65038
#1	-.004051	-.000302	.0077574	.0064296	13.70853	-.001002
#2	-.003218	-.000184	.0084864	.0047047	13.76291	-.001648
#3	-.002731	-.000025	.0109436	.0050448	13.82640	-.001108

Elem	Sr4077
Units	ppm
Avg	-.000101
Stddev	.000004
%RSD	3.553011
#1	-.000098
#2	-.000101
#3	-.000105

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2717.807	64536.72	13848.55	1928.909	4816.277
Stddev	5.881	193.19	14.54	8.665	8.547
%RSD	.2163974	.2993413	.1049572	.4492334	.1774656
#1	2716.503	64327.17	13862.46	1920.775	4822.526
#2	2724.230	64575.29	13849.74	1938.022	4819.769
#3	2712.687	64707.72	13833.46	1927.929	4806.537

Sample Name: PB164869BL Acquired: 11/14/2024 16:05:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000875	-.001124	-.000173	-.000206	-.000586	-.001592	-.001484
Stddev	.001254	.000703	.000613	.000563	.000157	.003801	.000102
%RSD	143.2722	62.51454	354.9280	273.6762	26.75055	238.7159	6.893135

#1	.000297	-.000518	.000340	-.000259	-.000483	.002302	-.001600
#2	-.002197	-.000959	-.000852	-.000740	-.000509	-.001787	-.001450
#3	-.000725	-.001895	-.000006	.000382	-.000766	-.005293	-.001404

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000493	-.000047	-.003006	.0002060	-.000027	-.000347	-.000248
Stddev	.0000457	.000051	.005517	.0001827	.000069	.000197	.001740
%RSD	92.67128	109.8340	183.5181	88.66034	256.1619	56.69561	702.9967

#1	.0000674	-.000039	-.009269	.0003817	-.000067	-.000392	.000464
#2	-.000003	.000001	-.000883	.0002194	-.000066	-.000132	-.002231
#3	.000083	-.000101	.001134	.0000171	.000052	-.000518	.001024

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000100	.0037450	.0002930	-.000184	-.183446	-.001062	.0005035
Stddev	.000139	.0077249	.0000893	.000331	.003893	.000114	.0001124
%RSD	139.2263	206.2713	30.48724	180.2477	2.122077	10.72597	22.33098

#1	.000023	.0104487	.0002760	.000196	-.180503	-.001056	.0004779
#2	-.000250	.0054893	.0003897	-.000415	-.187860	-.001179	.0006265
#3	-.000072	-.004703	.0002135	-.000332	-.181975	-.000951	.0004060

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.046088	-.000376	-.000142	.0115856	.0000584	.0034397	-.000221
Stddev	.011877	.000091	.000229	.0005685	.0004992	.0008962	.000525
%RSD	25.77045	24.14387	160.9415	4.906807	854.7499	26.05353	237.7522

#1	-.056041	-.000272	-.000033	.0118643	.0005342	.0044736	-.000148
#2	-.049281	-.000442	.000011	.0119610	.0001024	.0029609	-.000778
#3	-.032940	-.000413	-.000405	.0109316	-.000461	.0028847	.000264

Sample Name: PB164869BL Acquired: 11/14/2024 16:05:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.001417	.0002388	-.000062
Stddev	.000939	.0008567	.000013
%RSD	66.25671	358.7076	21.41799

#1	-.001179	-.000716	-.000055
#2	-.002453	.000492	-.000077
#3	-.000620	.000941	-.000054

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2645.880	60793.38	13208.67	1845.703	4611.191
Stddev	10.512	220.92	22.21	12.603	14.024
%RSD	.3973050	.3634013	.1681130	.6828195	.3041302

#1	2645.925	60567.92	13195.20	1836.256	4611.909
#2	2656.369	60802.74	13234.30	1840.842	4624.841
#3	2635.345	61009.47	13196.52	1860.013	4596.821

Sample Name: PB164869BS Acquired: 11/14/2024 16:09:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7492995	1.871279	.9207357	1.846756	.7380290	1.915724
Stddev	.0078238	.026637	.0076018	.024333	.0085223	.009941
%RSD	1.044147	1.423459	.8256180	1.317608	1.154736	.5188970
#1	.7537320	1.861908	.9243318	1.855333	.7397080	1.904462
#2	.7539005	1.901335	.9258722	1.865640	.7455868	1.919433
#3	.7402659	1.850595	.9120031	1.819296	.7287921	1.923277
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1892210	.1939375	.1803415	.9922506	.3805152	.1837118
Stddev	.0012151	.0009888	.0015252	.0008881	.0015704	.0017314
%RSD	.6421654	.5098689	.8457315	.0895020	.4126989	.9424407
#1	.1880854	.1947662	.1815076	.9927155	.3819625	.1849809
#2	.1905025	.1942033	.1809014	.9912266	.3807376	.1844151
#3	.1890752	.1928429	.1786154	.9928097	.3788454	.1817395
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2936050	2.771859	.1933642	1.887615	.4628291	.0699215
Stddev	.0030227	.009027	.0008124	.011004	.0036804	.0000573
%RSD	1.029522	.3256489	.4201308	.5829472	.7951968	.0819679
#1	.2951927	2.781915	.1925559	1.876949	.4650861	.0698677
#2	.2955030	2.764458	.1941806	1.886966	.4648191	.0699152
#3	.2901193	2.769204	.1933560	1.898928	.4585821	.0699818
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.483932	.2884042	.1980387	9.058813	.2825362	.3860003
Stddev	.011500	.0024944	.0010050	.040464	.0005489	.0037857
%RSD	.4629883	.8648814	.5074827	.4466776	.1942806	.9807378
#1	2.470691	.2857134	.1974977	9.044573	.2831138	.3863821
#2	2.489685	.2888601	.1974200	9.027395	.2820213	.3895805
#3	2.491421	.2906392	.1991983	9.104472	.2824736	.3820382

Sample Name: PB164869BS Acquired: 11/14/2024 16:09:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6476212	.1884551	F .6646789	5.209598	F -.006688	.1989234
Stddev	.0062926	.0010839	.0035895	.044281	.001185	.0006069
%RSD	.9716426	.5751339	.5400356	.8499951	17.71565	.3050868
#1	.6525412	.1872225	.6605401	5.215760	-.008055	.1982778
#2	.6497917	.1888837	.6665538	5.250476	-.006050	.1990100
#3	.6405307	.1892591	.6669426	5.162558	-.005958	.1994823

Elem	Sr4077
Units	ppm
Avg	.1967705
Stddev	.0006918
%RSD	.3515701
#1	.1959735
#2	.1972160
#3	.1971219

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2680.386	62029.93	13228.08	1870.581	4519.095
Stddev	22.899	95.21	19.85	9.314	34.128
%RSD	.8543011	.1534958	.1500417	.4979409	.7551911
#1	2673.731	61961.82	13246.61	1878.289	4503.316
#2	2661.553	62138.72	13207.14	1873.223	4495.712
#3	2705.875	61989.24	13230.48	1860.231	4558.257

Sample Name: PB164880TB Acquired: 11/14/2024 16:13:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.013384	-.014439	-.000573	.0087745	.0021505	.0020594
Stddev	.001553	.001291	.001290	.0011345	.0004126	.0035758
%RSD	11.60287	8.943599	225.1995	12.92897	19.18659	173.6352
#1	-.013130	-.013783	-.001942	.0091350	.0025373	-.002035
#2	-.011974	-.013607	.000620	.0075036	.0021981	.004568
#3	-.015048	-.015927	-.000396	.0096849	.0017162	.003645
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002570	-.000377	-.000376	.0160242	.0000905	-.000498
Stddev	.000319	.000006	.000034	.0089878	.0002852	.000218
%RSD	12.42429	1.709670	8.918578	56.08891	315.0763	43.74889
#1	-.002623	-.000379	-.000414	.0241100	-.000036	-.000248
#2	-.002859	-.000383	-.000353	.0063470	.000417	-.000646
#3	-.002227	-.000370	-.000360	.0176157	-.000110	-.000599
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004167	.0086650	.0005745	-.002006	.0007237	-.000481
Stddev	.0004524	.0024726	.0000577	.006686	.0002006	.000167
%RSD	108.5678	28.53581	10.03513	333.3164	27.71302	34.74959
#1	-.000095	.0073203	.0005664	-.006249	.0005261	-.000621
#2	.000579	.0071561	.0006358	.005701	.0009271	-.000296
#3	.000765	.0115186	.0005214	-.005469	.0007180	-.000526
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 398.7171	.0000447	.0017955	-.020737	.0000317	.0004033
Stddev	1.0137	.0011213	.0000987	.010670	.0003956	.0002856
%RSD	.2542478	2505.763	5.496737	51.45507	1248.127	70.82311
#1	397.5598	-.000840	.0019021	-.019562	.0004700	.0001564
#2	399.4478	-.000331	.0017074	-.031945	-.000299	.0003374
#3	399.1437	.001306	.0017770	-.010702	-.000076	.0007162

Sample Name: PB164880TB Acquired: 11/14/2024 16:13:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000920	-.000210	.0269477	.0041819	.0170842	-.001635
Stddev	.000837	.000430	.0049807	.0025799	.0019610	.000437
%RSD	91.05534	204.5131	18.48287	61.69175	11.47856	26.74654
#1	.000024	.000111	.0321973	.0022711	.0188373	-.001167
#2	-.001209	-.000043	.0263572	.0031581	.0174490	-.001703
#3	-.001575	-.000699	.0222885	.0071166	.0149664	-.002034

Elem	Sr4077
Units	ppm
Avg	-.000070
Stddev	.000032
%RSD	46.45854
#1	-.000106
#2	-.000043
#3	-.000060

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2346.168	52768.39	12534.43	1610.695	3788.829
Stddev	7.513	278.75	28.85	12.933	6.960
%RSD	.3202049	.5282613	.2301573	.8029544	.1837074
#1	2339.350	52668.45	12501.17	1612.510	3781.302
#2	2344.930	52553.39	12552.67	1596.951	3790.155
#3	2354.222	53083.34	12549.45	1622.625	3795.032

Sample Name: PB164890TB Acquired: 11/14/2024 16:18:28 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.012861	-.011457	-.001561	.0069781	.0016456	.0054453
Stddev	.003635	.001321	.000235	.0020498	.0004422	.0012610
%RSD	28.26606	11.52691	15.05368	29.37505	26.87371	23.15720
#1	-.009373	-.012431	-.001477	.0046112	.0021470	.0056071
#2	-.012581	-.011986	-.001379	.0081613	.0014791	.0066176
#3	-.016627	-.009954	-.001826	.0081618	.0013109	.0041113
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001168	-.000357	-.000362	.0120589	.0004950	-.000313
Stddev	.000397	.000006	.000021	.0011483	.0001348	.000026
%RSD	34.01285	1.726718	5.723528	9.522440	27.23479	8.214101
#1	-.001619	-.000360	-.000343	.0133699	.0006486	-.000337
#2	-.000871	-.000350	-.000360	.0112317	.0003960	-.000286
#3	-.001013	-.000360	-.000384	.0115749	.0004405	-.000316
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007431	.0074075	.0013368	-.001797	.0009114	-.000346
Stddev	.0002655	.0048935	.0001411	.008816	.0000965	.000169
%RSD	35.72946	66.06101	10.55458	490.5951	10.58560	48.67662
#1	.0004491	.0112269	.0012891	.008175	.0010162	-.000152
#2	.0008147	.0018915	.0012258	-.005010	.0008917	-.000458
#3	.0009655	.0091043	.0014956	-.008556	.0008263	-.000429
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 469.1007	.0009276	.0020002	-.014863	-.000535	.0003957
Stddev	1.9042	.0008125	.0000301	.022228	.000285	.0001197
%RSD	.4059185	87.59603	1.503254	149.5505	53.17196	30.24652
#1	470.7421	.0011396	.0019978	-.032886	-.000518	.0003083
#2	467.0130	.0016132	.0019713	.009974	-.000260	.0005321
#3	469.5470	.0000301	.0020313	-.021676	-.000828	.0003467

Sample Name: PB164890TB Acquired: 11/14/2024 16:18:28 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.001450	-.000254	.0160272	.0033574	F .0201009	-.001507
Stddev	.000217	.000140	.0040298	.0028394	.0037189	.000180
%RSD	14.99256	55.15484	25.14372	84.57003	18.50090	11.92659
#1	-.001333	-.000382	.0144116	.0065128	.0183500	-.001603
#2	-.001701	-.000276	.0206142	.0010086	.0243720	-.001618
#3	-.001317	-.000104	.0130559	.0025508	.0175807	-.001299

Elem	Sr4077
Units	ppm
Avg	-.000087
Stddev	.000017
%RSD	19.51538
#1	-.000072
#2	-.000084
#3	-.000106

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2392.366	53989.68	12643.74	1674.256	3804.197
Stddev	2.038	95.66	28.19	10.145	6.577
%RSD	.0851809	.1771848	.2229775	.6059423	.1728790
#1	2390.576	53959.40	12669.96	1664.780	3797.031
#2	2391.937	54096.81	12613.92	1684.958	3805.603
#3	2394.583	53912.82	12647.33	1673.029	3809.956

Sample Name: PB164926BL Acquired: 11/14/2024 16:22:58 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000429	-.000511	-.000891	-.001402	-.000205	-.003597	-.000499
Stddev	.002496	.000525	.000303	.000684	.000195	.002027	.000177
%RSD	581.3436	102.7262	33.96505	48.77007	95.02761	56.35048	35.43075
#1	.002213	-.000991	-.001228	-.001318	-.000218	-.004727	-.000351
#2	-.002747	-.000590	-.000643	-.002123	-.000004	-.001257	-.000451
#3	-.000753	.000049	-.000801	-.000764	-.000394	-.004806	-.000695
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000372	-.000065	.0135259	-.000306	.0000646	-.000162	.0016795
Stddev	.0000551	.000049	.0065389	.000288	.0001319	.000226	.0028335
%RSD	148.0017	74.66762	48.34341	94.21245	204.2515	139.7966	168.7118
#1	.0000930	-.000081	.0196662	.000011	.0000030	.000010	.0017028
#2	-.000017	-.000011	.0142611	-.000375	-.000025	-.000077	-.001166
#3	.000036	-.000104	.0066505	-.000553	.000216	-.000418	.004501
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000692	.0019191	.0002661	-.000321	-.069626	.0004868	.0008263
Stddev	.0001583	.0080316	.0000758	.000143	.014759	.0007986	.0004772
%RSD	228.5652	418.5100	28.48987	44.55787	21.19716	164.0371	57.75121
#1	.0000670	.0102153	.0001788	-.000205	-.075781	.0002914	.0007354
#2	.0002286	-.005819	.0003049	-.000277	-.080311	-.000196	.0013425
#3	-.000088	.001361	.0003147	-.000480	-.052786	.001365	.0004011
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.043350	-.000688	-.000296	.0028676	-.000152	.0034812	-.000645
Stddev	.014191	.000317	.000154	.0001716	.000466	.0012262	.000916
%RSD	32.73641	46.11857	51.95220	5.983195	306.1412	35.22356	142.0371
#1	-.056512	-.001020	-.000138	.0029193	-.000578	.0043647	-.000200
#2	-.045221	-.000655	-.000445	.0030073	.000345	.0039977	-.001699
#3	-.028316	-.000388	-.000305	.0026761	-.000223	.0020813	-.000036

Sample Name: PB164926BL Acquired: 11/14/2024 16:22:58 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0016796	.0001650	-.000065
Stddev	.0029646	.0008382	.000024
%RSD	176.5048	507.9621	35.95875

#1	-.000731	-.000792	-.000092
#2	.004990	.000517	-.000046
#3	.000780	.000770	-.000058

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2705.159	60808.36	13113.77	1885.137	4668.800
Stddev	4.150	258.75	260.28	13.684	10.965
%RSD	.1534225	.4255201	1.984819	.7258730	.2348485

#1	2700.366	60515.84	13413.60	1869.632	4658.528
#2	2707.529	61007.32	12981.88	1895.526	4667.526
#3	2707.580	60901.92	12945.84	1890.251	4680.346

Sample Name: CCV03 Acquired: 11/14/2024 16:27:19 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	5.109043	5.054801	5.087909	5.130269	5.142092	9.842410	9.597232
Stddev	.006316	.071436	.002171	.035962	.008457	.107034	.116617
%RSD	.1236245	1.413226	.0426745	.7009804	.1644637	1.087481	1.215113

#1	5.107431	4.972315	5.089071	5.100492	5.135123	9.753789	9.507682
#2	5.103689	5.095807	5.085404	5.120092	5.139653	9.812114	9.554914
#3	5.116009	5.096283	5.089251	5.170223	5.151501	9.961327	9.729100

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2445045	2.537905	24.27265	1.016440	2.541851	1.296318	4.938351
Stddev	.0023315	.002592	.24977	.017557	.002721	.003560	.083943
%RSD	.9535620	.1021245	1.029018	1.727286	.1070638	.2746421	1.699813

#1	.2428690	2.540843	24.03382	1.006740	2.544609	1.296355	4.878567
#2	.2434704	2.535943	24.25205	1.005874	2.539168	1.292740	4.902170
#3	.2471742	2.536930	24.53209	1.036707	2.541774	1.299860	5.034317

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.397082	24.17755	2.548502	1.246106	24.68918	2.445409	2.540879
Stddev	.025766	.23847	.003361	.020270	.45991	.029062	.053634
%RSD	1.074888	.9863150	.1318975	1.626657	1.862807	1.188412	2.110840

#1	2.372652	23.98425	2.552369	1.236404	24.47948	2.419888	2.509034
#2	2.394592	24.10435	2.546274	1.232511	24.37150	2.439299	2.510802
#3	2.424003	24.44403	2.546864	1.269404	25.21657	2.477040	2.602802

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.74932	4.834572	5.193167	5.090218	4.824172	4.943398	5.146203
Stddev	.46101	.043206	.014662	.006264	.049986	.099458	.018865
%RSD	1.862721	.8936951	.2823377	.1230639	1.036147	2.011929	.3665796

#1	24.48041	4.809662	5.180013	5.083079	4.783456	4.864355	5.151158
#2	24.48590	4.809593	5.190514	5.094796	4.809102	4.910767	5.162097
#3	25.28164	4.884463	5.208975	5.092779	4.879959	5.055072	5.125356

Sample Name: CCV03 Acquired: 11/14/2024 16:27:19 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.909779	4.820475	4.935328
Stddev	.008706	.057063	.031068
%RSD	.1773221	1.183754	.6295047

#1	4.900661	4.779128	4.900977
#2	4.918005	4.796718	4.943547
#3	4.910669	4.885578	4.961461

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2416.719	56973.72	13052.30	1716.131	3853.819
Stddev	7.674	829.83	94.20	32.801	6.563
%RSD	.3175260	1.456521	.7216929	1.911357	.1702901

#1	2420.852	57418.27	13126.95	1735.595	3853.391
#2	2421.441	57486.57	13083.48	1734.538	3860.585
#3	2407.865	56016.32	12946.46	1678.260	3847.481

Sample Name: CCB03 Acquired: 11/14/2024 16:31:30 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000628	-.001820	.0005265	-.001069	-.000793	-.004015	-.001597
Stddev	.000906	.001069	.0008435	.000637	.000564	.003321	.000656
%RSD	144.2998	58.70879	160.1971	59.62101	71.12829	82.73176	41.08868
#1	-.000903	-.000599	-.000358	-.000518	-.000756	-.000399	-.001607
#2	-.001364	-.002585	.000616	-.001767	-.000249	-.004715	-.000936
#3	.000384	-.002275	.001322	-.000921	-.001375	-.006930	-.002248
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000376	-.000096	.0142641	-.000081	.0001103	-.000382	.0004083
Stddev	.0000647	.000039	.0023321	.000114	.0000151	.000211	.0032464
%RSD	172.0257	41.20998	16.34938	140.0849	13.66479	55.20754	795.0406
#1	.0000248	-.000060	.0129318	-.000206	.0001168	-.000527	-.000270
#2	-.000020	-.000090	.0129036	-.000057	.0000931	-.000478	-.002445
#3	.000108	-.000138	.0169569	.000019	.0001211	-.000140	.003940
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000098	.0035543	.0002714	-.000083	-.153824	.0001834	.0009926
Stddev	.000143	.0081517	.0000883	.000182	.012274	.0005582	.0001033
%RSD	146.2315	229.3466	32.53563	221.0213	7.979147	304.3689	10.40123
#1	-.000051	.0114668	.0003716	-.000101	-.163839	.0008267	.0010708
#2	-.000258	.0040133	.0002050	-.000255	-.157502	-.000173	.0008756
#3	.000016	-.004817	.0002376	.000109	-.140132	-.000103	.0010316
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.049734	.0043653	.0001538	.0034524	-.000160	.0072688	-.000898
Stddev	.002902	.0005353	.0000581	.0006983	.000270	.0015057	.001131
%RSD	5.835078	12.26225	37.79154	20.22719	168.5723	20.71394	125.9768
#1	-.052249	.0046840	.0001226	.0026675	.000142	.0069942	-.002022
#2	-.046559	.0046647	.0001179	.0036848	-.000244	.0059194	-.000911
#3	-.050394	.0037474	.0002209	.0040048	-.000379	.0088929	.000240

Sample Name: CCB03 Acquired: 11/14/2024 16:31:30 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0006907	-.000312	.0000159
Stddev	.0032034	.000424	.0000316
%RSD	463.8272	136.1703	199.1166
#1	.0043636	-.000772	.0000456
#2	-.001526	-.000228	.0000193
#3	-.000766	.000065	-.000017

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2575.063	60587.63	13024.16	1821.240	4476.626
Stddev	25.185	122.18	107.96	15.904	44.799
%RSD	.9780366	.2016645	.8289073	.8732271	1.000729
#1	2603.941	60668.79	12901.52	1835.704	4528.236
#2	2557.655	60647.00	13104.83	1823.805	4453.857
#3	2563.592	60447.11	13066.13	1804.209	4447.784

Sample Name: PB164926BS Acquired: 11/14/2024 16:41:35 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7146510	1.866741	.8895145	1.745207	.6959969	1.838882
Stddev	.0059098	.030414	.0002891	.010419	.0019767	.007202
%RSD	.8269516	1.629242	.0324993	.5970080	.2840143	.3916458
#1	.7088967	1.832941	.8898371	1.734647	.6957633	1.837167
#2	.7143512	1.891898	.8892790	1.745496	.6941474	1.846787
#3	.7207050	1.875383	.8894274	1.755479	.6980801	1.832693
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1872406	.1939456	.1744813	.9897658	.3669407	.1779459
Stddev	.0004258	.0004810	.0003966	.0033499	.0004900	.0004459
%RSD	.2274308	.2480103	.2273224	.3384553	.1335285	.2505859
#1	.1876643	.1940875	.1740894	.9923778	.3667947	.1778265
#2	.1872449	.1943397	.1744721	.9859890	.3665403	.1775720
#3	.1868126	.1934096	.1748825	.9909306	.3674871	.1784394
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2806301	2.677882	.1927847	1.835464	.4477556	.0680762
Stddev	.0011916	.003233	.0011365	.007118	.0006925	.0000961
%RSD	.4246219	.1207179	.5895090	.3878077	.1546687	.1410848
#1	.2808150	2.676323	.1940950	1.835888	.4476228	.0679925
#2	.2793569	2.675724	.1921934	1.842361	.4471391	.0680549
#3	.2817185	2.681599	.1920659	1.828144	.4485050	.0681811
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.364302	.2816916	.1902067	8.544887	.2820770	.3672375
Stddev	.015263	.0017911	.0013392	.055914	.0022440	.0016460
%RSD	.6455815	.6358523	.7040956	.6543579	.7955389	.4482032
#1	2.359434	.2798788	.1913412	8.539128	.2831527	.3657380
#2	2.352067	.2834603	.1905494	8.492076	.2835806	.3669759
#3	2.381406	.2817357	.1887294	8.603458	.2794976	.3689986

Sample Name: PB164926BS Acquired: 11/14/2024 16:41:35 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6138346	.1839949	F .6217354	5.171453	F -.008248	.1918628
Stddev	.0031074	.0000743	.0069100	.024204	.001413	.0011595
%RSD	.5062343	.0403958	1.111405	.4680344	17.12686	.6043535
#1	.6127659	.1839818	.6295916	5.144773	-.009464	.1931980
#2	.6114025	.1839280	.6166000	5.177588	-.008580	.1911089
#3	.6173353	.1840749	.6190146	5.192001	-.006699	.1912816

Elem	Sr4077
Units	ppm
Avg	.1917339
Stddev	.0007512
%RSD	.3917910
#1	.1926013
#2	.1913097
#3	.1912909

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2815.585	64221.74	13275.33	1995.278	4705.524
Stddev	9.637	119.27	29.83	8.806	10.632
%RSD	.3422636	.1857231	.2247191	.4413382	.2259460
#1	2822.494	64192.82	13256.33	1985.615	4712.698
#2	2819.684	64352.81	13259.95	2002.850	4710.564
#3	2804.576	64119.58	13309.71	1997.370	4693.309

Sample Name: P4768-01 Acquired: 11/14/2024 16:45:36 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1404431	.0011665	.1421614	-.079269	-.002585	290.3102
Stddev	.0045360	.0022848	.0009684	.001407	.001332	7.0793
%RSD	3.229774	195.8634	.6812001	1.775513	51.54948	2.438538
#1	.1445185	-.000211	.1415910	-.079593	-.001339	282.4833
#2	.1355561	.003804	.1416136	-.080486	-.003990	296.2660
#3	.1412545	-.000094	.1432795	-.077727	-.002425	292.1812
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6511971	.0123779	.0493722	338.0562	.7570098	.3021211
Stddev	.0121008	.0003394	.0017727	7.0851	.0163182	.0056413
%RSD	1.858245	2.741771	3.590514	2.095831	2.155616	1.867237
#1	.6382434	.0120060	.0512837	330.1518	.7548463	.3085364
#2	.6622107	.0126708	.0490507	343.8355	.7418812	.2979349
#3	.6531373	.0124569	.0477822	340.1814	.7743018	.2998920
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.220230	411.8003	5.884298	185.6630	.5727332	.0089694
Stddev	.021610	7.2680	.123419	3.9704	.0094979	.0006429
%RSD	1.770961	1.764944	2.097423	2.138502	1.658339	7.167499
#1	1.244223	409.4422	5.747352	181.3121	.5834088	.0089910
#2	1.214170	406.0041	5.986927	189.0900	.5652197	.0096012
#3	1.202297	419.9546	5.918614	186.5868	.5695711	.0083160
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.94205	.6473356	.8875450	19.79238	.9488453	.0065623
Stddev	.51050	.0131786	.0193479	.34731	.0082512	.0004074
%RSD	2.132251	2.035813	2.179937	1.754752	.8696066	6.208751
#1	23.69591	.6327779	.8823863	19.52956	.9425448	.0066895
#2	23.60124	.6584524	.8712994	19.66145	.9458060	.0068911
#3	24.52899	.6507764	.9089495	20.18612	.9581851	.0061065

Sample Name: P4768-01 Acquired: 11/14/2024 16:45:36 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0065072	6.907054	F 14.08008	F 12.12489	4.650621	.1885937
Stddev	.0009245	.126341	.27043	.18933	.061411	.0035941
%RSD	14.20786	1.829155	1.920656	1.561527	1.320497	1.905738
#1	.0074595	6.773874	13.90500	12.33733	4.719970	.1853478
#2	.0064489	7.025212	13.94370	11.97397	4.603122	.1924562
#3	.0056132	6.922075	14.39155	12.06336	4.628773	.1879771

Elem	Sr4077
Units	ppm
Avg	.4826356
Stddev	.0178095
%RSD	3.690051
#1	.4665726
#2	.5017875
#3	.4795467

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2635.375	61136.61	14569.10	1821.622	3323.855
Stddev	27.382	1016.01	199.77	31.791	49.552
%RSD	1.039009	1.661874	1.371194	1.745190	1.490794
#1	2603.852	61445.91	14765.53	1828.646	3267.370
#2	2653.252	61962.04	14366.15	1849.313	3360.004
#3	2649.021	60001.90	14575.61	1786.906	3344.189

Sample Name: P4768-02 Acquired: 11/14/2024 16:50:12 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0494740	.0084793	.2717059	-.035526	.0018549	74.34109
Stddev	.0028822	.0021258	.0034710	.001149	.0019116	1.39439
%RSD	5.825745	25.07075	1.277486	3.235324	103.0536	1.875667
#1	.0463456	.0079218	.2734326	-.036665	.0009014	74.17666
#2	.0500549	.0108284	.2739749	-.035546	.0006077	75.81041
#3	.0520215	.0066878	.2677102	-.034367	.0040557	73.03621
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5435837	.0090907	.0121780	13.38848	.1908561	.0726203
Stddev	.0104277	.0000868	.0007115	.21086	.0009941	.0007831
%RSD	1.918315	.9549254	5.842465	1.574906	.5208508	1.078340
#1	.5413710	.0090969	.0129239	13.34742	.1917092	.0730385
#2	.5549401	.0091741	.0121033	13.61685	.1910947	.0731056
#3	.5344400	.0090009	.0115068	13.20117	.1897645	.0717169
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1955810	228.6678	2.378164	26.46294	.1527327	.0066234
Stddev	.0052444	1.7256	.043031	.37314	.0018896	.0006914
%RSD	2.681464	.7546307	1.809401	1.410041	1.237216	10.43891
#1	.2011183	226.8829	2.361148	26.35263	.1543417	.0058685
#2	.1949357	230.3273	2.427101	26.87880	.1532045	.0067760
#3	.1906891	228.7931	2.346243	26.15739	.1506518	.0072258
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3954442	.2180486	1.085239	8.744094	.0714692	.0051876
Stddev	.0115088	.0030767	.008554	.080961	.0028181	.0002294
%RSD	2.910356	1.411008	.7881815	.9258933	3.943096	4.421607
#1	.3878369	.2166827	1.090219	8.699323	.0693851	.0051668
#2	.4086845	.2215718	1.090136	8.837552	.0703470	.0054267
#3	.3898112	.2158914	1.075362	8.695405	.0746756	.0049694

Sample Name: P4768-02 Acquired: 11/14/2024 16:50:12 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0166804	1.646543	F 14.30178	5.476517	.1461564	.1541377
Stddev	.0010217	.030694	.09781	.063290	.0051391	.0037405
%RSD	6.125033	1.864158	.6839204	1.155670	3.516185	2.426694
#1	.0177933	1.639503	14.22381	5.532115	.1513276	.1540287
#2	.0164630	1.680145	14.41153	5.489796	.1460917	.1579315
#3	.0157850	1.619980	14.26999	5.407641	.1410500	.1504530

Elem	Sr4077
Units	ppm
Avg	-.129968
Stddev	.001786
%RSD	1.373950
#1	-.128379
#2	-.129625
#3	-.131901

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2606.651	59838.05	13287.66	1805.074	4005.684
Stddev	31.458	204.99	211.11	5.701	48.824
%RSD	1.206841	.3425666	1.588776	.3158260	1.218879
#1	2579.442	59837.91	13272.18	1811.195	3964.964
#2	2599.414	59633.13	13084.71	1799.915	3992.276
#3	2641.097	60043.10	13506.08	1804.113	4059.811

Sample Name: P4768-02DUP Acquired: 11/14/2024 16:54:18 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0509272	.0085370	.2672797	-.037322	.0021832	72.11731
Stddev	.0008868	.0025397	.0022824	.000370	.0008526	.19170
%RSD	1.741386	29.74966	.8539512	.9921498	39.05378	.2658117
#1	.0512665	.0114504	.2672837	-.037715	.0018241	72.15134
#2	.0499209	.0067900	.2649953	-.036980	.0031566	71.91087
#3	.0515944	.0073706	.2695601	-.037271	.0015689	72.28971
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5301782	.0087951	.0125479	13.34231	.1868270	.0722465
Stddev	.0004735	.0000619	.0009069	.05485	.0040470	.0003922
%RSD	.0893111	.7037915	7.227478	.4110641	2.166176	.5428096
#1	.5296514	.0087236	.0135898	13.28746	.1822333	.0726967
#2	.5305685	.0088303	.0119360	13.39715	.1898665	.0720628
#3	.5303146	.0088314	.0121178	13.34231	.1883812	.0719798
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1963505	227.2628	2.310433	25.58280	.1521447	.0068413
Stddev	.0066960	5.3729	.011460	.08261	.0011362	.0003256
%RSD	3.410244	2.364174	.4960121	.3229042	.7467836	4.758869
#1	.2039533	221.0594	2.297964	25.48947	.1533197	.0065468
#2	.1913305	230.4425	2.320505	25.61240	.1510518	.0067862
#3	.1937677	230.2866	2.312829	25.64653	.1520627	.0071909
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4597811	.2112235	1.085400	8.771163	.0780181	.0047139
Stddev	.0360508	.0007420	.023414	.187541	.0058816	.0001041
%RSD	7.840859	.3512697	2.157174	2.138153	7.538725	2.208913
#1	.4212471	.2114854	1.058378	8.556231	.0712710	.0047649
#2	.4654096	.2103861	1.099653	8.855717	.0820628	.0047827
#3	.4926866	.2117990	1.098169	8.901540	.0807205	.0045941

Sample Name: P4768-02DUP Acquired: 11/14/2024 16:54:18 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0173143	1.605703	F 14.37904	5.435653	.1612900	.1499716
Stddev	.0010227	.003254	.28525	.026358	.0060873	.0002795
%RSD	5.906441	.2026564	1.983787	.4849082	3.774106	.1863398
#1	.0174149	1.601961	14.05134	5.466068	.1654194	.1497765
#2	.0162451	1.607282	14.51410	5.421402	.1641514	.1498466
#3	.0182830	1.607867	14.57167	5.419488	.1542993	.1502918

Elem	Sr4077
Units	ppm
Avg	-.130841
Stddev	.005306
%RSD	4.055221
#1	-.124719
#2	-.134111
#3	-.133693

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2606.467	60265.00	13706.01	1839.901	4011.269
Stddev	22.160	1126.41	18.94	39.755	25.802
%RSD	.8502046	1.869087	.1382199	2.160713	.6432342
#1	2586.974	61560.73	13703.32	1885.418	3984.412
#2	2630.569	59519.19	13688.55	1811.983	4035.867
#3	2601.857	59715.07	13726.15	1822.302	4013.527

Sample Name: P4768-02LX5 Acquired: 11/14/2024 16:58:23 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0066731	.0000800	.0567157	-.008082	.0003020	15.29930	.1122402
Stddev	.0028239	.0012641	.0016501	.002573	.0004744	.05381	.0000931
%RSD	42.31792	1579.969	2.909400	31.83155	157.0729	.3517205	.0829439
#1	.0096618	-.001059	.0580294	-.007001	.0008327	15.36060	.1122642
#2	.0040494	.001440	.0548637	-.011018	.0001543	15.25983	.1121375
#3	.0063081	-.000141	.0572542	-.006226	-.000081	15.27748	.1123189
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020068	.0019345	2.878390	.0397412	.0148787	.0442656	47.88936
Stddev	.0000401	.0000789	.025888	.0004279	.0000558	.0006714	.24682
%RSD	1.996445	4.080055	.8994047	1.076640	.3753336	1.516669	.5153963
#1	.0019830	.0019349	2.891317	.0400961	.0149341	.0448532	47.79658
#2	.0019843	.0018553	2.848584	.0398614	.0148796	.0435339	48.16913
#3	.0020530	.0020131	2.895269	.0392661	.0148224	.0444098	47.70238
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5100163	5.511209	.0314494	.0010759	-.037591	.0448439	.2348905
Stddev	.0010649	.017201	.0003691	.0001071	.005588	.0015023	.0031123
%RSD	.2087891	.3121043	1.173624	9.951733	14.86558	3.350074	1.325009
#1	.5100121	5.531066	.0316652	.0010814	-.044010	.0437451	.2374677
#2	.5089535	5.501630	.0310232	.0011802	-.033809	.0465558	.2357709
#3	.5110832	5.500930	.0316598	.0009662	-.034955	.0442308	.2314328
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.735109	.0139225	.0006703	.0124080	.3461724	2.950434	1.100990
Stddev	.012300	.0002902	.0000810	.0001207	.0007170	.022750	.008299
%RSD	.7089074	2.084451	12.08384	.9723193	.2071088	.7710758	.7537926
#1	1.748210	.0135883	.0007555	.0125404	.3454795	2.961057	1.093084
#2	1.733311	.0140694	.0006612	.0123043	.3461265	2.965929	1.100251
#3	1.723807	.0141100	.0005942	.0123793	.3469112	2.924315	1.109633

Sample Name: P4768-02LX5 Acquired: 11/14/2024 16:58:23 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0325265	.0313187	-.027225
Stddev	.0024356	.0003573	.000286
%RSD	7.488008	1.140751	1.049983
#1	.0333237	.0314926	-.027048
#2	.0297922	.0315557	-.027555
#3	.0344636	.0309078	-.027073

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2680.949	60921.74	13218.12	1872.884	4384.856
Stddev	11.750	375.66	41.23	15.641	17.626
%RSD	.4382871	.6166295	.3118867	.8351087	.4019657
#1	2667.427	60723.90	13192.26	1865.315	4364.693
#2	2686.733	60686.34	13265.66	1862.468	4397.337
#3	2688.685	61354.97	13196.44	1890.869	4392.537

Sample Name: P4768-02MS Acquired: 11/14/2024 17:02:36 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7503537	1.709886	1.134773	1.592864	.6867538	74.07293
Stddev	.0074715	.016149	.006718	.004989	.0047681	.65480
%RSD	.9957270	.9444747	.5919906	.3132113	.6943003	.8839904
#1	.7421706	1.721336	1.127035	1.587555	.6812820	74.58979
#2	.7568118	1.716907	1.138175	1.597456	.6889607	73.33658
#3	.7520787	1.691414	1.139109	1.593581	.6900186	74.29240
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7219186	.1863331	.1912202	14.19433	.5360188	.2559824
Stddev	.0069624	.0016889	.0013555	.14279	.0020309	.0020134
%RSD	.9644272	.9063606	.7088653	1.005937	.3788843	.7865269
#1	.7291841	.1876867	.1897068	14.28911	.5374490	.2537148
#2	.7153053	.1844406	.1916311	14.03011	.5336942	.2566725
#3	.7212664	.1868721	.1923227	14.26379	.5369131	.2575600
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4502441	220.1807	2.522436	27.66979	.6065100	.0724656
Stddev	.0069998	1.1716	.024391	.25472	.0043742	.0002659
%RSD	1.554661	.5321025	.9669640	.9205860	.7212000	.3669393
#1	.4422434	221.4287	2.543687	27.77398	.6016502	.0727651
#2	.4532507	219.1046	2.495804	27.37948	.6077483	.0722573
#3	.4552384	220.0087	2.527818	27.85590	.6101315	.0723743
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.063122	.4883768	1.204588	17.08850	.3081942	.3759701
Stddev	.023638	.0049237	.006811	.14067	.0027674	.0011616
%RSD	.7716981	1.008184	.5654151	.8232092	.8979345	.3089568
#1	3.090187	.4920479	1.212387	17.25022	.3112377	.3746321
#2	3.052649	.4827815	1.201560	17.02074	.3058292	.3765583
#3	3.046529	.4903009	1.199815	16.99452	.3075155	.3767199

Sample Name: P4768-02MS Acquired: 11/14/2024 17:02:36 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6439327	1.804121	F 14.62386	F 10.76627	.1391940	.3414241
Stddev	.0040299	.015318	.08749	.04767	.0011669	.0032765
%RSD	.6258292	.8490290	.5982997	.4427794	.8383111	.9596560
#1	.6393539	1.820310	14.69704	10.71124	.1379055	.3448137
#2	.6455036	1.789856	14.52695	10.79282	.1401794	.3382738
#3	.6469405	1.802198	14.64759	10.79476	.1394971	.3411850

Elem	Sr4077
Units	ppm
Avg	.0693784
Stddev	.0015671
%RSD	2.258717
#1	.0709702
#2	.0678373
#3	.0693276

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2685.485	62135.46	13299.37	1895.873	4086.845
Stddev	12.218	394.86	122.51	23.298	18.760
%RSD	.4549804	.6354861	.9211364	1.228865	.4590336
#1	2699.450	61679.53	13176.18	1870.046	4108.145
#2	2680.237	62366.27	13421.18	1902.270	4079.612
#3	2676.767	62360.59	13300.76	1915.305	4072.778

Sample Name: P4768-02MSD Acquired: 11/14/2024 17:06:34 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7409566	1.677503	1.112079	1.583125	.6759040	73.79692
Stddev	.0133875	.044816	.019898	.032745	.0129387	1.76290
%RSD	1.806790	2.671616	1.789230	2.068393	1.914275	2.388852
#1	.7563420	1.714819	1.135051	1.620696	.6906467	75.22090
#2	.7345643	1.627794	1.100238	1.560659	.6706294	74.34469
#3	.7319634	1.689896	1.100949	1.568020	.6664358	71.82516
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7161386	.1858010	.1879048	13.91930	.5445918	.2507995
Stddev	.0187226	.0040703	.0043447	.26665	.0067623	.0051376
%RSD	2.614376	2.190654	2.312161	1.915699	1.241721	2.048509
#1	.7292458	.1888505	.1929202	14.10792	.5367885	.2567276
#2	.7244740	.1873734	.1854972	14.03574	.5487383	.2480337
#3	.6946959	.1811791	.1852970	13.61423	.5482486	.2476374
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4374180	220.9682	2.487897	27.35035	.5957452	.0733894
Stddev	.0135273	2.1199	.059347	.49358	.0111215	.0008247
%RSD	3.092541	.9593644	2.385417	1.804640	1.866816	1.123724
#1	.4530221	218.6003	2.531158	27.70749	.6085703	.0725021
#2	.4302250	222.6895	2.512292	27.55643	.5899035	.0735336
#3	.4290067	221.6148	2.420240	26.78713	.5887620	.0741325
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.113749	.4845254	1.212620	17.40718	.3107956	.3695091
Stddev	.026594	.0072250	.010820	.13833	.0019425	.0073087
%RSD	.8540856	1.491141	.8923178	.7946935	.6250041	1.977953
#1	3.097776	.4911079	1.200553	17.26574	.3094857	.3779182
#2	3.144449	.4856729	1.221459	17.54218	.3130274	.3646853
#3	3.099024	.4767954	1.215847	17.41361	.3098738	.3659239

Sample Name: P4768-02MSD Acquired: 11/14/2024 17:06:34 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6289180	1.822514	F 15.61616	F 10.50533	.1319256	.3390407
Stddev	.0108676	.051573	.07401	.22382	.0073734	.0093249
%RSD	1.727982	2.829773	.4739060	2.130567	5.589036	2.750364
#1	.6414269	1.870169	15.53119	10.76023	.1404169	.3464068
#2	.6217972	1.829613	15.66653	10.34090	.1282188	.3421589
#3	.6235300	1.767759	15.65076	10.41486	.1271412	.3285563

Elem	Sr4077
Units	ppm
Avg	.0668761
Stddev	.0085353
%RSD	12.76284
#1	.0748600
#2	.0678885
#3	.0578798

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2710.850	61681.20	13459.63	1875.970	4146.997
Stddev	50.885	526.25	307.26	15.131	80.195
%RSD	1.877087	.8531784	2.282814	.8065817	1.933805
#1	2652.512	62273.54	13225.61	1891.707	4054.637
#2	2733.956	61267.61	13345.69	1861.527	4187.402
#3	2746.082	61502.45	13807.58	1874.675	4198.953

Sample Name: P4768-02A Acquired: 11/14/2024 17:10:32 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7624924	1.751069	1.138119	1.639644	.6955641	72.81348
Stddev	.0024880	.012895	.006063	.004632	.0024764	1.37829
%RSD	.3263007	.7363817	.5327269	.2824862	.3560270	1.892899
#1	.7602254	1.765953	1.131490	1.634296	.6931366	71.64330
#2	.7620974	1.743269	1.143384	1.642282	.6980867	72.46440
#3	.7651542	1.743986	1.139482	1.642354	.6954691	74.33274
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6846933	.1789446	.1937202	13.65308	.5471232	.2575020
Stddev	.0122842	.0030745	.0007620	.32429	.0010352	.0012375
%RSD	1.794120	1.718122	.3933291	2.375237	.1892052	.4805626
#1	.6748690	.1762666	.1932162	13.36488	.5459545	.2561385
#2	.6807446	.1782653	.1945968	13.59013	.5479248	.2585539
#3	.6984662	.1823019	.1933477	14.00424	.5474904	.2578136
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4576053	219.3329	2.377030	26.86213	.6118587	.0722747
Stddev	.0027354	1.2654	.054830	.71437	.0034786	.0004554
%RSD	.5977699	.5769190	2.306672	2.659409	.5685285	.6301425
#1	.4557868	218.0736	2.330295	26.28662	.6086871	.0718197
#2	.4607512	219.3208	2.363407	26.63812	.6155791	.0722738
#3	.4562780	220.6043	2.437387	27.66167	.6113099	.0727305
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.050542	.4698186	1.224109	17.47606	.3023249	.3814567
Stddev	.006867	.0100921	.005144	.05134	.0027983	.0012601
%RSD	.2250917	2.148076	.4202368	.2937802	.9255765	.3303259
#1	3.045459	.4595620	1.222761	17.42355	.3002706	.3800903
#2	3.058354	.4701561	1.229793	17.47848	.3011921	.3825727
#3	3.047815	.4797377	1.219773	17.52615	.3055119	.3817073

Sample Name: P4768-02A Acquired: 11/14/2024 17:10:32 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6472952	1.775624	F 16.41802	F 10.82925	.1436771	.3257351
Stddev	.0028301	.031697	.07764	.05581	.0010464	.0055943
%RSD	.4372182	1.785105	.4729144	.5153519	.7282907	1.717423
#1	.6450154	1.749805	16.33678	10.87072	.1446443	.3213260
#2	.6504627	1.766068	16.42579	10.85123	.1438207	.3238511
#3	.6464074	1.810999	16.49149	10.76580	.1425664	.3320281

Elem	Sr4077
Units	ppm
Avg	.0563886
Stddev	.0039815
%RSD	7.060896
#1	.0534685
#2	.0547733
#3	.0609240

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2603.425	61000.62	13795.89	1819.365	3994.725
Stddev	17.856	184.14	227.37	8.550	26.437
%RSD	.6858743	.3018679	1.648105	.4699708	.6617951
#1	2622.402	60993.26	14000.20	1820.735	4022.666
#2	2586.954	60820.28	13836.53	1810.212	3970.106
#3	2600.920	61188.34	13550.94	1827.148	3991.402

Sample Name: P4768-03 Acquired: 11/14/2024 17:14:30 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0563244	-.002053	.2971814	-.053924	-.000569	210.8176
Stddev	.0017736	.001609	.0029679	.001202	.001084	1.3294
%RSD	3.148938	78.35894	.9986754	2.228212	190.4867	.6306053
#1	.0547627	-.001211	.2964637	-.053453	.000435	209.4765
#2	.0582527	-.001040	.2946382	-.055290	-.000424	212.1350
#3	.0559580	-.003908	.3004423	-.053030	-.001719	210.8414
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7900744	.0096600	.0240416	168.8986	.4763419	.1442504
Stddev	.0014846	.0000897	.0003401	.9976	.0021192	.0009618
%RSD	.1878998	.9288597	1.414758	.5906632	.4448923	.6667876
#1	.7899468	.0095637	.0244181	167.8783	.4782184	.1446483
#2	.7916187	.0096748	.0237565	169.8718	.4740435	.1431535
#3	.7886579	.0097413	.0239502	168.9458	.4767638	.1449495
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4786257	293.2932	3.941912	91.54587	.3549377	.0083356
Stddev	.0034629	.6863	.021780	.53736	.0026569	.0005502
%RSD	.7235196	.2339959	.5525162	.5869877	.7485654	6.601197
#1	.4812954	292.5048	3.922363	90.94816	.3561666	.0077096
#2	.4747127	293.6178	3.965388	91.98901	.3518887	.0085543
#3	.4798690	293.7570	3.937985	91.70044	.3567577	.0087428
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.069398	.4387093	.9476995	17.72351	.3031947	.0193899
Stddev	.019726	.0014110	.0044725	.07662	.0015118	.0001926
%RSD	.2444491	.3216167	.4719304	.4322895	.4986274	.9931612
#1	8.092001	.4371318	.9528125	17.80532	.3014542	.0191903
#2	8.060535	.4398509	.9445138	17.65344	.3041816	.0194047
#3	8.055659	.4391451	.9457721	17.71176	.3039483	.0195746

Sample Name: P4768-03 Acquired: 11/14/2024 17:14:30 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0130421	5.022212	F 15.49862	6.021373	2.148459	.2318241
Stddev	.0001064	.015923	.02858	.052385	.009104	.0005473
%RSD	.8160224	.3170451	.1844033	.8699863	.4237556	.2360938
#1	.0130983	5.010659	15.46615	6.021235	2.153536	.2324176
#2	.0129193	5.040375	15.50975	5.969057	2.137949	.2317155
#3	.0131086	5.015603	15.51996	6.073827	2.153893	.2313393

Elem	Sr4077
Units	ppm
Avg	.4972648
Stddev	.0004821
%RSD	.0969423
#1	.4967732
#2	.4972844
#3	.4977368

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2567.375	59460.46	13923.21	1763.466	3662.625
Stddev	12.211	142.92	38.48	12.605	20.274
%RSD	.4756045	.2403647	.2763926	.7148018	.5535420
#1	2553.685	59295.87	13927.40	1750.165	3645.158
#2	2577.139	59553.10	13882.81	1764.999	3684.857
#3	2571.303	59532.43	13959.43	1775.235	3657.859

Sample Name: P4768-04 Acquired: 11/14/2024 17:18:53 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0858161	.0108464	.1653971	-.061416	.0032983	144.8747
Stddev	.0032171	.0022891	.0019875	.000206	.0021815	.2381
%RSD	3.748874	21.10501	1.201672	.3351607	66.13858	.1643355
#1	.0826447	.0092904	.1676216	-.061179	.0014328	145.1031
#2	.0857265	.0097739	.1647741	-.061534	.0056969	144.6280
#3	.0890771	.0134748	.1637958	-.061537	.0027653	144.8931
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5208862	.0126032	.0267717	12.36662	.2124105	.1642096
Stddev	.0016441	.0000809	.0012250	.03413	.0012376	.0013014
%RSD	.3156291	.6420708	4.575733	.2759706	.5826237	.7925281
#1	.5217161	.0126553	.0280374	12.32765	.2137778	.1656379
#2	.5189926	.0125100	.0266858	12.39120	.2120868	.1638999
#3	.5219500	.0126444	.0255919	12.38100	.2113670	.1630910
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2693580	331.7000	8.966606	62.60205	.3127822	.0073096
Stddev	.0079813	3.8030	.040102	.24958	.0024318	.0010718
%RSD	2.963087	1.146530	.4472353	.3986722	.7774783	14.66289
#1	.2780682	327.6350	8.920369	62.31501	.3154354	.0060909
#2	.2676106	332.2937	8.987537	62.76775	.3122519	.0077326
#3	.2623951	335.1713	8.991912	62.72340	.3106593	.0081054
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.058941	.2774491	.7926809	11.61910	.0689768	.0040217
Stddev	.036224	.0005379	.0037845	.03981	.0065049	.0001060
%RSD	3.420732	.1938789	.4774319	.3425872	9.430586	2.634971
#1	1.027326	.2780668	.7961295	11.57383	.0615522	.0040346
#2	1.051030	.2770834	.7932810	11.64864	.0717036	.0041206
#3	1.098466	.2771972	.7886322	11.63482	.0736745	.0039098

Sample Name: P4768-04 Acquired: 11/14/2024 17:18:53 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0109310	2.260247	F 10.23180	5.132279	.0847467	.3362046
Stddev	.0003654	.002427	.08695	.033940	.0010624	.0013739
%RSD	3.342771	.1073841	.8497735	.6613128	1.253629	.4086509
#1	.0108940	2.260546	10.13162	5.166070	.0843429	.3372044
#2	.0113135	2.257683	10.27610	5.132577	.0859518	.3346380
#3	.0105855	2.262510	10.28766	5.098191	.0839454	.3367716

Elem	Sr4077
Units	ppm
Avg	-.238569
Stddev	.003816
%RSD	1.599721
#1	-.234396
#2	-.239429
#3	-.241881

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2882.372	65539.12	14412.06	2008.698	3980.261
Stddev	28.258	215.35	114.76	3.778	37.109
%RSD	.9803793	.3285866	.7962647	.1881052	.9323276
#1	2856.582	65508.26	14286.95	2004.478	3946.423
#2	2877.958	65340.87	14436.79	2009.848	3974.414
#3	2912.578	65768.24	14512.43	2011.767	4019.947

Sample Name: CCV04 Acquired: 11/14/2024 17:23:07 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.725482	4.924895	4.770997	4.712743	4.716513	9.510084	9.468745
Stddev	.021100	.071855	.011769	.019465	.020857	.058940	.081584
%RSD	.4465079	1.459009	.2466795	.4130268	.4422131	.6197612	.8616103
#1	4.701304	4.849313	4.760941	4.692177	4.693263	9.510734	9.406936
#2	4.734963	4.933046	4.768108	4.715172	4.733577	9.450822	9.438082
#3	4.740177	4.992327	4.783942	4.730879	4.722699	9.568696	9.561218
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2430715	2.383852	23.93048	.9623803	2.377246	1.193049	4.723325
Stddev	.0014357	.005241	.18683	.0020494	.005917	.003182	.027978
%RSD	.5906551	.2198638	.7807074	.2129535	.2488821	.2666763	.5923436
#1	.2431167	2.380267	23.83254	.9612268	2.372488	1.189474	4.692563
#2	.2416137	2.381422	23.81299	.9611675	2.375379	1.195572	4.730159
#3	.2444841	2.389867	24.14592	.9647465	2.383871	1.194100	4.747254
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.365125	23.72122	2.385512	1.192478	23.47773	2.381391	2.411103
Stddev	.017975	.19578	.005078	.000939	.03849	.010813	.000751
%RSD	.7600030	.8253501	.2128482	.0787546	.1639245	.4540810	.0311440
#1	2.355530	23.65580	2.381551	1.191604	23.45088	2.375710	2.411601
#2	2.353983	23.56652	2.383748	1.192358	23.52182	2.374602	2.410240
#3	2.385861	23.94134	2.391236	1.193471	23.46047	2.393861	2.411470
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.17893	4.813585	4.800355	4.783417	4.701501	4.710563	4.923967
Stddev	.07107	.026188	.018050	.014425	.027917	.023471	.033282
%RSD	.3065967	.5440490	.3760053	.3015640	.5937985	.4982531	.6759240
#1	23.10302	4.816301	4.779534	4.770380	4.689305	4.688101	4.894617
#2	23.24387	4.786145	4.811581	4.780958	4.681757	4.734927	4.917157
#3	23.18992	4.838310	4.809950	4.798914	4.733442	4.708661	4.960128

Sample Name: CCV04 Acquired: 11/14/2024 17:23:07 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.636372	4.658728	4.789001
Stddev	.013379	.020382	.033915
%RSD	.2885719	.4375116	.7081769
#1	4.629812	4.650937	4.791458
#2	4.651765	4.643390	4.753924
#3	4.627539	4.681857	4.821620

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2658.631	60456.39	13318.02	1876.603	4188.213
Stddev	13.441	53.12	66.90	4.602	17.676
%RSD	.5055639	.0878620	.5022909	.2452064	.4220371
#1	2673.375	60400.89	13299.94	1881.403	4208.557
#2	2647.060	60461.53	13392.10	1876.175	4179.463
#3	2655.458	60506.75	13262.02	1872.230	4176.619

Sample Name: CCB04 Acquired: 11/14/2024 17:27:18 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000167	-.001051	-.000235	-.000929	-.000225	.0020903	.0000440
Stddev	.001152	.000300	.000624	.000432	.000208	.0034646	.0001206
%RSD	689.5420	28.53342	266.0191	46.54042	92.28238	165.7476	273.8467

#1	.000744	-.000711	.000472	-.001089	.000013	.0005654	.0001282
#2	-.001463	-.001277	-.000710	-.000439	-.000323	.0060557	-.000094
#3	.000217	-.001164	-.000466	-.001257	-.000366	-.000350	.000098

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000059	-.000079	.0125116	.0001238	.0001022	-.000179	.0049873
Stddev	.0000212	.000080	.0062278	.0001308	.0000403	.000125	.0041061
%RSD	360.8000	100.3860	49.77630	105.6139	39.49437	69.92195	82.33099

#1	.0000073	-.000125	.0142323	-.000005	.0001053	-.000035	.0033645
#2	.0000263	.000013	.0176982	.000121	.0001409	-.000239	.0096567
#3	-.000016	-.000125	.0056044	.000256	.0000604	-.000263	.0019406

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000085	-.001854	.0003032	-.000361	-.186782	-.000405	.0006986
Stddev	.000119	.016626	.0001291	.000154	.011872	.000689	.0000886
%RSD	139.6187	896.6380	42.58062	42.60160	6.356011	170.0327	12.68820

#1	-.000221	-.016045	.0004373	-.000505	-.199944	-.000234	.0006255
#2	.000002	.016439	.0001798	-.000381	-.176882	-.001164	.0006731
#3	-.000036	-.005956	.0002923	-.000199	-.183520	.000182	.0007972

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.047628	.0049649	-.000003	.0030313	.0001903	.0091471	.0003232
Stddev	.013313	.0004809	.000295	.0008679	.0000512	.0005731	.0016674
%RSD	27.95216	9.685464	11491.62	28.62949	26.93140	6.265606	515.9662

#1	-.053875	.0050473	.000238	.0024976	.0002279	.0086668	-.000097
#2	-.056669	.0044481	.000086	.0025637	.0002110	.0097815	-.001094
#3	-.032340	.0053992	-.000332	.0040327	.0001319	.0089929	.002161

Sample Name: CCB04 Acquired: 11/14/2024 17:27:18 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000226	.0000221	.0000087
Stddev	.004516	.0005776	.0000494
%RSD	1998.776	2611.366	569.1558
#1	.001634	-.000292	-.000023
#2	.003063	-.000330	.000066
#3	-.005375	.000689	-.000016

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2724.893	61774.81	13197.58	1930.104	4690.011
Stddev	20.846	141.80	114.94	5.386	30.335
%RSD	.7650364	.2295398	.8709454	.2790735	.6468051
#1	2747.696	61613.40	13303.66	1924.710	4723.068
#2	2720.168	61879.35	13213.63	1935.483	4683.516
#3	2706.815	61831.67	13075.46	1930.119	4663.449

Sample Name: P4768-05 Acquired: 11/14/2024 17:31:38 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0093529	-.001520	.1407731	-.039132	-.001654	214.3552
Stddev	.0004860	.002824	.0005744	.001672	.001240	1.8594
%RSD	5.196228	185.7588	.4080020	4.273447	74.98168	.8674507
#1	.0096617	.001189	.1414177	-.038401	-.002761	215.5606
#2	.0096042	-.001304	.1403158	-.037949	-.000314	215.2913
#3	.0087927	-.004446	.1405857	-.041045	-.001886	212.2138
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.282261	.0097378	.0208393	7.899765	.3175857	.1359981
Stddev	.006987	.0000567	.0002867	.009416	.0017681	.0007445
%RSD	.5448757	.5827543	1.375930	.1191891	.5567343	.5474725
#1	1.289436	.0097664	.0208711	7.907729	.3159375	.1355631
#2	1.281866	.0097746	.0205379	7.889373	.3173665	.1355735
#3	1.275479	.0096725	.0211087	7.902194	.3194533	.1368579
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2464021	239.2534	2.862572	57.91627	.3931491	.0070978
Stddev	.0013804	.9018	.011544	.21102	.0013058	.0001746
%RSD	.5602222	.3769080	.4032913	.3643459	.3321299	2.459407
#1	.2462969	238.3571	2.865989	57.67734	.3926727	.0069827
#2	.2450773	239.2425	2.872021	58.07711	.3921484	.0072987
#3	.2478321	240.1606	2.849704	57.99436	.3946262	.0070120
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.118553	.2971922	.8532625	16.57812	.0804727	.0043534
Stddev	.019719	.0006121	.0024859	.04709	.0016376	.0002716
%RSD	.2770055	.2059744	.2913462	.2840581	2.034954	6.239285
#1	7.140372	.2965151	.8503971	16.54810	.0795875	.0040525
#2	7.102006	.2977065	.8545464	16.55387	.0794682	.0044273
#3	7.113281	.2973552	.8548440	16.63239	.0823623	.0045805

Sample Name: P4768-05 Acquired: 11/14/2024 17:31:38 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0084924	4.283621	F 18.96610	2.628127	.1661539	.3023060
Stddev	.0007845	.013509	.11406	.027829	.0023881	.0009389
%RSD	9.237669	.3153524	.6013745	1.058880	1.437312	.3105778
#1	.0081663	4.292947	18.84054	2.613359	.1639365	.3033597
#2	.0079235	4.289786	18.99446	2.610796	.1686823	.3019999
#3	.0093874	4.268130	19.06330	2.660227	.1658427	.3015583

Elem	Sr4077
Units	ppm
Avg	-.153845
Stddev	.001245
%RSD	.8090263
#1	-.152642
#2	-.153767
#3	-.155127

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2864.205	66427.65	15225.25	2012.782	3820.336
Stddev	10.051	112.71	80.83	8.255	12.543
%RSD	.3509274	.1696765	.5308622	.4101453	.3283292
#1	2864.063	66540.10	15178.12	2022.186	3816.917
#2	2874.326	66428.17	15179.05	2006.727	3834.235
#3	2854.225	66314.67	15318.58	2009.434	3809.857

Sample Name: P4768-06 Acquired: 11/14/2024 17:35:53 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0845223	.0057796	1.482908	-.041344	.0062128	93.63191
Stddev	.0041353	.0021984	.009047	.000700	.0004803	.31365
%RSD	4.892536	38.03622	.6100958	1.694261	7.730382	.3349793
#1	.0828802	.0067025	1.479476	-.040570	.0056805	93.84611
#2	.0814603	.0073661	1.476079	-.041935	.0066136	93.77773
#3	.0892264	.0032703	1.493169	-.041527	.0063443	93.27190
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.686244	.0075098	.0179278	37.32284	.2462803	.1144552
Stddev	.011935	.0001157	.0003147	.06590	.0021058	.0005812
%RSD	.7077819	1.541243	1.755367	.1765807	.8550326	.5077947
#1	1.692647	.0076268	.0176367	37.27119	.2474994	.1146520
#2	1.693610	.0075071	.0178851	37.39707	.2438488	.1138012
#3	1.672474	.0073954	.0182618	37.30026	.2474928	.1149125
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6260148	230.8601	5.750173	43.09163	.2242517	.0067451
Stddev	.0028861	1.6518	.014431	.13774	.0004394	.0003278
%RSD	.4610318	.7154948	.2509606	.3196411	.1959631	4.860425
#1	.6235228	231.1098	5.744170	42.96425	.2237633	.0063743
#2	.6253444	229.0977	5.766636	43.07283	.2243767	.0068642
#3	.6291771	232.3728	5.739712	43.23780	.2246151	.0069967
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.956055	.2476166	2.137308	9.308548	.1111052	.0367640
Stddev	.013675	.0020674	.020578	.052538	.0007954	.0005902
%RSD	.3456785	.8349304	.9627816	.5644060	.7158906	1.605424
#1	3.970471	.2453268	2.140145	9.364076	.1115000	.0362951
#2	3.943266	.2481769	2.115459	9.259624	.1101897	.0365700
#3	3.954427	.2493461	2.156320	9.301944	.1116260	.0374268

Sample Name: P4768-06 Acquired: 11/14/2024 17:35:53 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1489413	1.188938	F 16.90743	5.612723	1.516674	.2056835
Stddev	.0008369	.005156	.12918	.041866	.010457	.0018871
%RSD	.5619228	.4336548	.7640151	.7459077	.6894637	.9174639
#1	.1482140	1.191900	16.95659	5.566796	1.505159	.2060479
#2	.1487538	1.191929	16.76089	5.622619	1.519286	.2073618
#3	.1498561	1.182984	17.00480	5.648754	1.525577	.2036408

Elem	Sr4077
Units	ppm
Avg	.0613746
Stddev	.0032420
%RSD	5.282366
#1	.0622643
#2	.0640790
#3	.0577807

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2765.369	63463.30	14533.19	1901.556	4020.636
Stddev	13.227	598.55	35.27	20.172	18.856
%RSD	.4783098	.9431495	.2426953	1.060842	.4689868
#1	2765.552	63070.39	14492.55	1895.487	4020.648
#2	2778.504	64152.18	14551.28	1924.066	4039.486
#3	2752.052	63167.34	14555.76	1885.114	4001.773

Sample Name: P4768-07 Acquired: 11/14/2024 17:39:58 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0882756	.0081267	1.420229	-.043695	.0062207	104.1162
Stddev	.0044804	.0021996	.007899	.002274	.0011415	.6984
%RSD	5.075409	27.06659	.5562079	5.204266	18.35023	.6708246
#1	.0923622	.0088303	1.428546	-.042637	.0051142	104.8191
#2	.0834849	.0098885	1.419315	-.046305	.0073943	104.1071
#3	.0889796	.0056614	1.412827	-.042142	.0061536	103.4224
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.479136	.0085891	.0209996	43.74834	.2297204	.1605259
Stddev	.007386	.0000687	.0004776	.27990	.0005086	.0009951
%RSD	.4993494	.8003018	2.274227	.6398049	.2214099	.6199324
#1	1.487050	.0085511	.0212563	44.06963	.2292018	.1616142
#2	1.477933	.0086684	.0212939	43.61817	.2297409	.1603013
#3	1.472426	.0085477	.0204486	43.55724	.2302184	.1596622
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5425983	257.3978	7.076352	45.88605	.2602458	.0070800
Stddev	.0036246	.7220	.037075	.30255	.0018476	.0000901
%RSD	.6680080	.2805036	.5239330	.6593588	.7099452	1.272878
#1	.5454838	257.4295	7.118408	46.23302	.2618045	.0070066
#2	.5437810	256.6605	7.048394	45.74785	.2607279	.0071806
#3	.5385301	258.1035	7.062253	45.67727	.2582049	.0070527
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.322171	.2823258	1.828861	10.09389	.1433814	.0286579
Stddev	.010591	.0008567	.006510	.04743	.0005285	.0002844
%RSD	.3187895	.3034554	.3559715	.4698390	.3685798	.9925161
#1	3.312802	.2831472	1.834943	10.04434	.1436544	.0285665
#2	3.333662	.2823925	1.829645	10.13886	.1427723	.0289768
#3	3.320049	.2814376	1.821994	10.09846	.1437176	.0284304

Sample Name: P4768-07 Acquired: 11/14/2024 17:39:58 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1028491	1.392332	F 17.07452	6.689713	2.408985	.2423511
Stddev	.0007546	.010871	.00686	.038024	.015429	.0015478
%RSD	.7336589	.7807483	.0402037	.5683898	.6404706	.6386702
#1	.1034831	1.404855	17.06715	6.677428	2.414476	.2432788
#2	.1020145	1.386818	17.08072	6.732361	2.420917	.2432102
#3	.1030496	1.385324	17.07570	6.659351	2.391562	.2405643

Elem	Sr4077
Units	ppm
Avg	.1100261
Stddev	.0023033
%RSD	2.093413
#1	.1121525
#2	.1103465
#3	.1075794

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2805.156	64705.39	14687.56	1948.728	3972.837
Stddev	17.112	205.53	123.70	14.646	27.085
%RSD	.6100169	.3176426	.8422021	.7515630	.6817666
#1	2788.394	64472.70	14545.53	1931.990	3945.602
#2	2804.478	64862.16	14745.48	1955.002	3973.140
#3	2822.597	64781.32	14771.68	1959.191	3999.770

Sample Name: P4771-05 Acquired: 11/14/2024 17:44:04 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0071065	-.004403	.0381862	-.004290	.0013674	36.21158
Stddev	.0005230	.000492	.0016756	.001782	.0010671	.27344
%RSD	7.359892	11.18261	4.387899	41.53863	78.03969	.7551053
#1	.0066963	-.004664	.0400969	-.006329	.0006387	35.89633
#2	.0076955	-.004711	.0374945	-.003033	.0025922	36.38438
#3	.0069276	-.003835	.0369673	-.003507	.0008712	36.35403
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1703436	.0018078	.0023210	13.13904	.0843756	.0083177
Stddev	.0003704	.0001036	.0000788	.07876	.0001209	.0001697
%RSD	.2174631	5.731867	3.395252	.5993976	.1432966	2.040294
#1	.1699660	.0016882	.0022337	13.05034	.0845056	.0083200
#2	.1707065	.0018674	.0023423	13.20075	.0842666	.0084862
#3	.1703582	.0018679	.0023869	13.16604	.0843546	.0081468
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0403370	53.09663	.3128740	6.797348	.0181548	.0021577
Stddev	.0005029	.08694	.0004955	.032361	.0001619	.0001142
%RSD	1.246833	.1637486	.1583817	.4760890	.8916918	5.290898
#1	.0403042	53.09933	.3123053	6.775484	.0179683	.0022318
#2	.0408556	53.00837	.3131042	6.782036	.0182584	.0022151
#3	.0398513	53.18220	.3132126	6.834524	.0182378	.0020262
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.063185	.1282932	.2367042	3.660251	.0274512	.0103140
Stddev	.012994	.0018211	.0008582	.018966	.0001293	.0001370
%RSD	20.56574	1.419442	.3625730	.5181529	.4710899	1.328171
#1	-.075528	.1265092	.2357759	3.642573	.0275987	.0104614
#2	-.064402	.1282213	.2374687	3.657894	.0273574	.0102900
#3	-.049624	.1301492	.2368680	3.680285	.0273975	.0101906

Sample Name: P4771-05 Acquired: 11/14/2024 17:44:04 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0033541	1.528854	F 15.58978	2.174230	1.036640	.0162843
Stddev	.0004187	.007999	.02224	.010954	.013082	.0004376
%RSD	12.48347	.5232211	.1426577	.5037968	1.261941	2.687544
#1	.0029569	1.520221	15.60864	2.186839	1.040497	.0158518
#2	.0033139	1.536014	15.59544	2.167061	1.022064	.0167269
#3	.0037915	1.530329	15.56526	2.168789	1.047360	.0162743

Elem	Sr4077
Units	ppm
Avg	.0092881
Stddev	.0004904
%RSD	5.279544
#1	.0087849
#2	.0097645
#3	.0093147

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2638.259	59619.58	13449.53	1815.519	4306.430
Stddev	17.685	329.61	52.15	10.092	17.239
%RSD	.6703244	.5528512	.3877333	.5558530	.4003131
#1	2619.826	59313.51	13465.91	1806.064	4287.734
#2	2639.864	59576.71	13391.16	1814.347	4309.858
#3	2655.087	59968.53	13491.52	1826.145	4321.697

Sample Name: P4771-07 Acquired: 11/14/2024 17:48:17 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0080098	-.007365	.0527005	-.006792	.0003803	42.31581
Stddev	.0008718	.002660	.0001332	.002676	.0007894	.06605
%RSD	10.88434	36.11304	.2527314	39.39823	207.5896	.1560856
#1	.0076414	-.005538	.0527378	-.006994	.0005591	42.38920
#2	.0073826	-.010416	.0528110	-.009361	.0010649	42.29708
#3	.0090053	-.006140	.0525526	-.004021	-.000483	42.26114
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1989703	.0019097	.0032013	61.12998	.0917717	.0160112
Stddev	.0011546	.0001065	.0001171	.18391	.0002056	.0001982
%RSD	.5802842	5.578961	3.659019	.3008574	.2239763	1.238214
#1	.2002342	.0020300	.0030800	61.20628	.0915344	.0158790
#2	.1987055	.0018717	.0033138	61.26345	.0918880	.0159154
#3	.1979711	.0018273	.0032100	60.92019	.0918927	.0162391
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0681953	56.80058	.5505309	10.71734	.0293574	.0021964
Stddev	.0015880	.09511	.0018612	.02940	.0002409	.0001299
%RSD	2.328611	.1674529	.3380812	.2742973	.8205652	5.914251
#1	.0663618	56.82711	.5508786	10.68898	.0294128	.0023210
#2	.0690921	56.69502	.5521938	10.74767	.0295657	.0020618
#3	.0691320	56.87961	.5485204	10.71537	.0290936	.0022062
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3011101	.1284339	.2171550	4.127143	.0277328	.0094151
Stddev	.0038133	.0012515	.0006205	.028475	.0002132	.0000244
%RSD	1.266405	.9744060	.2857559	.6899463	.7688124	.2588527
#1	.3048229	.1298217	.2164433	4.136290	.0277767	.0094308
#2	.2972037	.1280888	.2175827	4.095219	.0279206	.0094275
#3	.3013036	.1273912	.2174390	4.149921	.0275010	.0093870

Sample Name: P4771-07 Acquired: 11/14/2024 17:48:17 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0025732	1.881563	F 13.66727	1.869780	1.618280	.0098847
Stddev	.0002073	.009540	.06031	.022487	.012909	.0006220
%RSD	8.054663	.5070059	.4412872	1.202637	.7976919	6.292231
#1	.0027694	1.891830	13.63438	1.843818	1.603666	.0097438
#2	.0025937	1.879884	13.63055	1.882385	1.628129	.0093453
#3	.0023564	1.872974	13.73688	1.883136	1.623045	.0105650

Elem	Sr4077
Units	ppm
Avg	.1701022
Stddev	.0010625
%RSD	.6246503
#1	.1712670
#2	.1698536
#3	.1691860

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2598.486	60313.69	13238.38	1842.503	4129.445
Stddev	22.050	19.29	57.40	14.227	32.763
%RSD	.8485620	.0319892	.4336078	.7721687	.7933976
#1	2623.914	60323.51	13208.48	1839.363	4166.678
#2	2586.881	60326.09	13202.11	1858.038	4116.635
#3	2584.662	60291.46	13304.56	1830.108	4105.023

Sample Name: P4821-01 Acquired: 11/14/2024 17:52:28 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0446733	-.006438	.1693706	-.044920	-.000599	107.0122
Stddev	.0014774	.001730	.0010535	.000704	.000840	.9723
%RSD	3.307134	26.86568	.6220167	1.567955	140.1956	.9085748
#1	.0435278	-.008125	.1690024	-.044380	.000175	105.8924
#2	.0463408	-.006522	.1685507	-.045717	-.001492	107.6415
#3	.0441512	-.004668	.1705588	-.044664	-.000481	107.5028
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.211630	.0127586	.0279290	36.27837	.2372590	.1775468
Stddev	.013009	.0001558	.0000772	.30609	.0006842	.0005156
%RSD	1.073674	1.221316	.2764473	.8437388	.2883812	.2904274
#1	1.196676	.0125790	.0279744	35.93487	.2365414	.1769751
#2	1.220343	.0128588	.0278398	36.52225	.2379041	.1776887
#3	1.217869	.0128379	.0279728	36.37797	.2373316	.1779767
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.229118	236.1435	10.49194	63.97912	.3615367	.0063209
Stddev	.003132	.4379	.10030	.44797	.0015672	.0001948
%RSD	.2548278	.1854369	.9559891	.7001890	.4334796	3.081218
#1	1.228351	235.6933	10.37722	63.46199	.3615193	.0060979
#2	1.226440	236.1693	10.56312	64.24861	.3599782	.0064575
#3	1.232562	236.5680	10.53546	64.22675	.3631125	.0064073
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.833876	.3163662	.6604579	19.83170	.1023378	-.000116
Stddev	.014071	.0030815	.0013622	.07266	.0005317	.000137
%RSD	.2910968	.9740312	.2062562	.3663908	.5195588	117.9534
#1	4.820030	.3128361	.6588853	19.75522	.1029138	.000039
#2	4.833436	.3177441	.6612734	19.84007	.1018658	-.000219
#3	4.848163	.3185183	.6612150	19.89982	.1022338	-.000167

Sample Name: P4821-01 Acquired: 11/14/2024 17:52:28 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0066136	3.849322	F 10.50396	F 10.24930	.3235306	.2177177
Stddev	.0005353	.037578	.03228	.03040	.0045078	.0025208
%RSD	8.094365	.9762131	.3072834	.2965808	1.393310	1.157807
#1	.0062079	3.806272	10.47378	10.26400	.3248065	.2148354
#2	.0064125	3.875547	10.50011	10.21435	.3185224	.2195102
#3	.0072204	3.866147	10.53798	10.26956	.3272629	.2188075

Elem	Sr4077
Units	ppm
Avg	-.105326
Stddev	.000962
%RSD	.9136223
#1	-.106407
#2	-.104563
#3	-.105008

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3177.182	73634.58	16825.00	2250.490	3775.923
Stddev	5.593	218.04	77.73	5.646	8.845
%RSD	.1760422	.2961119	.4619754	.2508595	.2342443
#1	3179.219	73383.98	16902.48	2244.969	3779.398
#2	3181.471	73780.90	16747.03	2250.250	3782.503
#3	3170.856	73738.86	16825.48	2256.253	3765.868

Sample Name: P4821-05 Acquired: 11/14/2024 17:56:32 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0556148	-.016809	.3601646	-.039406	-.001889	106.5102
Stddev	.0029368	.002324	.0033132	.000246	.000195	1.4504
%RSD	5.280683	13.82389	.9199166	.6250237	10.33532	1.361746
#1	.0588623	-.019485	.3607489	-.039226	-.001788	105.4013
#2	.0531454	-.015640	.3565981	-.039306	-.001766	105.9778
#3	.0548365	-.015301	.3631467	-.039687	-.002115	108.1516
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.247563	.0126563	.0249020	41.70476	.2383277	.1550561
Stddev	.009593	.0000601	.0003252	.55241	.0004566	.0008852
%RSD	.7689240	.4748061	1.305736	1.324568	.1915778	.5708764
#1	1.237640	.0126176	.0251932	41.23440	.2382510	.1560181
#2	1.248262	.0126257	.0245511	41.56682	.2388178	.1542760
#3	1.256787	.0127255	.0249616	42.31307	.2379143	.1548741
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2404042	205.1576	7.856265	74.21996	.3098402	.0061327
Stddev	.0024313	1.3789	.083591	1.07682	.0002306	.0002375
%RSD	1.011349	.6720947	1.064004	1.450854	.0744249	3.873314
#1	.2418195	203.9436	7.770653	73.26547	.3096467	.0061092
#2	.2375968	206.6567	7.860464	74.00707	.3097785	.0063812
#3	.2417962	204.8725	7.937677	75.38732	.3100954	.0059078
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.545797	.3645926	.8313322	25.44776	.1032553	.0027450
Stddev	.058798	.0041193	.0009623	.11583	.0023509	.0002637
%RSD	.7792138	1.129837	.1157537	.4551522	2.276782	9.606004
#1	7.554878	.3608182	.8323756	25.38784	.1023103	.0027346
#2	7.599526	.3639730	.8304797	25.58127	.1059316	.0024866
#3	7.482987	.3689866	.8311413	25.37417	.1015239	.0030137

Sample Name: P4821-05 Acquired: 11/14/2024 17:56:32 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0081590	5.857287	F 16.29107	9.565255	.8406927	.2580521
Stddev	.0010631	.057371	.06539	.059203	.0097303	.0028430
%RSD	13.02924	.9794802	.4014109	.6189422	1.157414	1.101700
#1	.0092097	5.805188	16.21849	9.633409	.8516080	.2550999
#2	.0070840	5.847901	16.34540	9.526560	.8375415	.2582848
#3	.0081832	5.918772	16.30932	9.535796	.8329285	.2607715

Elem	Sr4077
Units	ppm
Avg	-.049293
Stddev	.001572
%RSD	3.188527
#1	-.049295
#2	-.050864
#3	-.047721

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3099.158	72198.51	16665.81	2161.262	3746.443
Stddev	7.782	317.79	117.14	11.595	11.197
%RSD	.2511044	.4401681	.7028766	.5364800	.2988814
#1	3103.407	71986.90	16714.65	2154.043	3743.294
#2	3103.892	72044.68	16750.62	2155.106	3758.878
#3	3090.176	72563.94	16532.15	2174.636	3737.157

Sample Name: P4822-02 Acquired: 11/14/2024 18:00:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1321024	-.027687	1.574424	-.046539	.0014708	148.3061
Stddev	.0024779	.000375	.007893	.001963	.0005132	.3540
%RSD	1.875750	1.353299	.5012985	4.217702	34.89415	.2386714
#1	.1345206	-.028113	1.582202	-.044652	.0019795	147.8992
#2	.1295689	-.027410	1.574648	-.046396	.0014798	148.4761
#3	.1322176	-.027536	1.566421	-.048570	.0009532	148.5430
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9012368	.0138156	.0369627	60.08221	.3558778	.1852920
Stddev	.0025475	.0001086	.0002787	.06515	.0010837	.0011832
%RSD	.2826698	.7858010	.7539857	.1084418	.3045235	.6385318
#1	.9011715	.0138730	.0372570	60.06382	.3549533	.1863968
#2	.9038164	.0138834	.0369283	60.02823	.3570705	.1854357
#3	.8987226	.0136904	.0367028	60.15459	.3556097	.1840436
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5580407	251.5914	6.538672	105.1109	.2976504	.0090846
Stddev	.0027386	.4782	.013485	.3399	.0014563	.0000789
%RSD	.4907505	.1900590	.2062378	.3233950	.4892566	.8683262
#1	.5611265	252.1383	6.552386	104.8427	.2991429	.0091265
#2	.5570963	251.2523	6.525428	104.9967	.2975752	.0091336
#3	.5558993	251.3835	6.538204	105.4932	.2962333	.0089936
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.993785	.6292809	2.742902	53.59459	.1157443	.0098018
Stddev	.008376	.0020585	.002483	.15560	.0005763	.0002495
%RSD	.2797742	.3271154	.0905247	.2903259	.4979332	2.544949
#1	2.986279	.6302863	2.742994	53.55477	.1163628	.0100852
#2	3.002820	.6269129	2.745337	53.76624	.1152223	.0097045
#3	2.992254	.6306435	2.740373	53.46278	.1156477	.0096156

Sample Name: P4822-02 Acquired: 11/14/2024 18:00:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0428009	F 10.00351	F 20.33827	F 11.42170	1.995818	.3112160
Stddev	.0002369	.00484	.06134	.05105	.007602	.0012980
%RSD	.5535153	.0483559	.3016187	.4469367	.3809206	.4170744
#1	.0430376	10.00841	20.26803	11.47518	2.004324	.3103529
#2	.0425638	10.00336	20.36543	11.37350	1.993445	.3127087
#3	.0428014	9.99874	20.38134	11.41641	1.989685	.3105863

Elem	Sr4077
Units	ppm
Avg	.0478352
Stddev	.0008296
%RSD	1.734348
#1	.0474945
#2	.0487810
#3	.0472302

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2928.878	67563.68	15797.70	2027.888	3577.175
Stddev	13.408	154.20	47.15	17.346	19.096
%RSD	.4577791	.2282237	.2984870	.8553631	.5338273
#1	2913.634	67420.87	15748.10	2014.059	3557.607
#2	2934.156	67542.99	15803.04	2022.256	3578.158
#3	2938.843	67727.17	15841.96	2047.350	3595.760

Sample Name: P4822-02DUP Acquired: 11/14/2024 18:04:40 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1315589	-.025993	1.557842	-.046226	.0027243	144.7722
Stddev	.0023041	.003152	.003462	.001975	.0013716	1.0646
%RSD	1.751365	12.12728	.2222326	4.273134	50.34767	.7353732
#1	.1298677	-.028049	1.555915	-.044040	.0011448	144.4717
#2	.1341832	-.022364	1.555772	-.047883	.0036150	145.9548
#3	.1306259	-.027565	1.561838	-.046755	.0034130	143.8902
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8890705	.0134385	.0371391	58.43282	.3444687	.1821974
Stddev	.0053099	.0000939	.0005358	.48619	.0073328	.0009442
%RSD	.5972373	.6988107	1.442666	.8320446	2.128737	.5182157
#1	.8863092	.0133475	.0372580	58.16263	.3459148	.1821727
#2	.8951921	.0135350	.0376054	58.99409	.3365206	.1812658
#3	.8857102	.0134329	.0365538	58.14174	.3509708	.1831537
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5569640	243.5241	6.411486	102.2579	.2926602	.0085724
Stddev	.0041629	4.3363	.040906	.7982	.0013163	.0001342
%RSD	.7474249	1.780625	.6380146	.7805986	.4497810	1.565714
#1	.5543582	244.1272	6.386138	101.8260	.2919040	.0086245
#2	.5617651	238.9179	6.458677	103.1790	.2918965	.0086728
#3	.5547688	247.5273	6.389644	101.7687	.2941802	.0084200
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.835440	.6185518	2.641845	52.02467	.1088449	.0105095
Stddev	.072635	.0062628	.056726	.97412	.0048092	.0002481
%RSD	2.561698	1.012488	2.147226	1.872414	4.418423	2.360415
#1	2.859792	.6154080	2.664552	52.26642	.1096484	.0102874
#2	2.753758	.6257637	2.577282	50.95244	.1036845	.0104640
#3	2.892771	.6144837	2.683700	52.85515	.1132017	.0107772

Sample Name: P4822-02DUP Acquired: 11/14/2024 18:04:40 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0422060	9.855545	F 19.69288	F 11.24836	1.930721	.3057409
Stddev	.0008736	.067359	.34993	.04612	.018201	.0013126
%RSD	2.069751	.6834648	1.776936	.4100219	.9426840	.4293085
#1	.0432114	9.829001	19.75930	11.25793	1.933621	.3054031
#2	.0417743	9.932132	19.31450	11.19820	1.911244	.3071893
#3	.0416323	9.805501	20.00485	11.28894	1.947297	.3046301

Elem	Sr4077
Units	ppm
Avg	.0502527
Stddev	.0062066
%RSD	12.35073
#1	.0491091
#2	.0569515
#3	.0446974

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2951.377	69999.98	16137.68	2092.728	3626.160
Stddev	7.793	1248.07	114.21	41.175	2.919
%RSD	.2640595	1.782960	.7077408	1.967546	.0805018
#1	2954.146	69473.95	16128.02	2065.124	3627.206
#2	2942.577	71424.95	16028.61	2140.055	3628.412
#3	2957.408	69101.02	16256.42	2073.004	3622.862

Sample Name: P4822-02LX5 Acquired: 11/14/2024 18:08:44 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0300355	-.004701	.3384949	-.011940	-.000521	33.62526	.2057921
Stddev	.0030270	.000282	.0013956	.001785	.000929	.85759	.0050317
%RSD	10.07806	5.990489	.4122955	14.95141	178.4609	2.550431	2.445047
#1	.0310639	-.004890	.3369638	-.012471	-.000061	33.96069	.2078752
#2	.0324144	-.004835	.3388249	-.013399	-.001590	32.65065	.2000533
#3	.0266283	-.004377	.3396959	-.009949	.000089	34.26444	.2094477
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035273	.0050660	14.45699	.0871589	.0372338	.1463113	59.90784
Stddev	.0000414	.0000791	.35312	.0005751	.0002496	.0014704	.74507
%RSD	1.172264	1.562265	2.442553	.6598196	.6703147	1.004979	1.243690
#1	.0035669	.0051031	14.58168	.0869835	.0369458	.1454624	59.81220
#2	.0034844	.0051197	14.05844	.0866920	.0373682	.1480092	59.21521
#3	.0035306	.0049751	14.73084	.0878013	.0373872	.1454624	60.69611
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.585239	24.35206	.0612335	.0019248	.5003574	.1487047	.6765919
Stddev	.039388	.54378	.0004296	.0001073	.0213605	.0028285	.0073365
%RSD	2.484694	2.233010	.7015488	5.574789	4.269058	1.902068	1.084332
#1	1.600069	24.50925	.0612059	.0018575	.4889382	.1501162	.6749684
#2	1.540588	23.74700	.0616763	.0018685	.4871336	.1454483	.6702032
#3	1.615060	24.79993	.0608184	.0020486	.5250004	.1505496	.6846042
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.79051	.0263916	.0022890	.0176909	2.351433	4.587571	2.279513
Stddev	.12726	.0004969	.0001784	.0002801	.061553	.052618	.008446
%RSD	1.079325	1.882745	7.794350	1.583075	2.617695	1.146979	.3704967
#1	11.80372	.0260584	.0024570	.0179869	2.377186	4.574240	2.286475
#2	11.65716	.0269627	.0021018	.0174300	2.281185	4.542900	2.270118
#3	11.91065	.0261537	.0023082	.0176559	2.395927	4.645573	2.281947

Sample Name: P4822-02LX5 Acquired: 11/14/2024 18:08:44 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.3897535	.0699188	.0092733
Stddev	.0039582	.0018843	.0012390
%RSD	1.015575	2.695014	13.36063
#1	.3942381	.0706235	.0101314
#2	.3867469	.0677837	.0078529
#3	.3882755	.0713492	.0098356

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2694.180	61780.64	13863.87	1911.803	4103.838
Stddev	13.446	464.04	297.67	20.358	11.099
%RSD	.4990595	.7511071	2.147087	1.064844	.2704659
#1	2698.945	61834.87	13729.86	1913.257	4109.961
#2	2704.595	62215.18	14204.99	1931.395	4110.527
#3	2679.001	61291.87	13656.77	1890.757	4091.026

Sample Name: CCV05 Acquired: 11/14/2024 18:12:54 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.897859	4.932296	4.957454	4.855596	4.894221	9.907487	9.973608
Stddev	.063167	.124076	.060992	.066353	.067020	.011708	.030974
%RSD	1.289681	2.515591	1.230303	1.366536	1.369370	.1181744	.3105602
#1	4.853933	4.837638	4.924388	4.800023	4.844579	9.901454	10.00862
#2	4.869395	4.886486	4.920136	4.837705	4.867628	9.900026	9.94977
#3	4.970250	5.072764	5.027838	4.929061	4.970457	9.920981	9.96244
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2529287	2.470522	24.92830	.9964469	2.469876	1.241115	4.941354
Stddev	.0019278	.030089	.06225	.0045939	.031213	.015487	.044257
%RSD	.7622077	1.217928	.2497075	.4610272	1.263763	1.247799	.8956409
#1	.2544970	2.455181	24.86569	.9985067	2.452609	1.231685	4.890251
#2	.2507764	2.451196	24.92905	.9911835	2.451111	1.232672	4.967217
#3	.2535127	2.505190	24.99017	.9996503	2.505907	1.258989	4.966593
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.493356	24.44298	2.476560	1.241256	24.81403	2.482338	2.496760
Stddev	.014529	.08387	.031729	.001860	.25494	.003292	.000991
%RSD	.5827102	.3431381	1.281159	.1498230	1.027404	.1326320	.0396826
#1	2.477027	24.37149	2.459993	1.240862	24.54999	2.478585	2.496261
#2	2.498187	24.42213	2.456545	1.239624	25.05878	2.484738	2.496118
#3	2.504854	24.53530	2.513143	1.243281	24.83333	2.483691	2.497901
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.29245	5.029141	4.962067	4.942856	4.938393	4.894923	5.066351
Stddev	.18534	.025834	.065684	.067533	.013917	.031533	.083341
%RSD	.7629698	.5136767	1.323720	1.366268	.2818040	.6441920	1.644981
#1	24.08752	5.057225	4.917511	4.913410	4.922634	4.861655	5.013196
#2	24.44834	5.006391	4.931190	4.895045	4.943549	4.924372	5.023454
#3	24.34149	5.023806	5.037500	5.020111	4.948996	4.898742	5.162402

Sample Name: CCV05 Acquired: 11/14/2024 18:12:54 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.780519	4.905483	5.043886
Stddev	.077882	.013706	.021502
%RSD	1.629155	.2794113	.4262982
#1	4.735008	4.889777	5.021321
#2	4.736103	4.915027	5.046200
#3	4.870448	4.911645	5.064138

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2571.276	58105.51	12776.85	1822.941	4047.086
Stddev	30.893	173.82	30.55	8.354	49.059
%RSD	1.201476	.2991413	.2390893	.4582619	1.212202
#1	2593.469	58274.69	12742.95	1829.933	4075.813
#2	2584.366	57927.40	12802.24	1813.690	4075.004
#3	2535.993	58114.45	12785.37	1825.200	3990.439

Sample Name: CCB05 Acquired: 11/14/2024 18:17:05 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0001313	-.000827	-.000053	.0006302	-.000120	.0003192	.0001059
Stddev	.0021603	.000202	.000456	.0002480	.000464	.0014470	.0001515
%RSD	1645.028	24.40551	867.9738	39.34625	388.2862	453.3182	143.0323
#1	.0023709	-.001041	-.000514	.0003441	.000405	-.000303	.0002180
#2	-.001940	-.000640	.000398	.0007640	-.000476	.001973	.0001663
#3	-.000037	-.000800	-.000041	.0007825	-.000288	-.000713	-.000066
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000390	-.000036	.0166305	.0000013	.0001087	-.000187	.0003597
Stddev	.0000632	.000054	.0080975	.0001436	.0001707	.000159	.0021601
%RSD	162.1291	152.5984	48.69094	11522.34	157.0584	84.99526	600.4772
#1	.0000283	-.000096	.0152641	-.000055	.0000424	-.000254	-.001329
#2	.0001068	.000007	.0253242	-.000106	.0003025	-.000302	.002794
#3	-.000018	-.000017	.0093030	.000164	-.000019	-.000006	-.000386
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000006	.0009847	.0002402	-.000226	-.217395	-.000398	.0007030
Stddev	.000197	.0102860	.0001559	.000162	.005281	.001171	.0000089
%RSD	3049.360	1044.581	64.91155	71.60765	2.429052	294.1705	1.261570
#1	.000204	.0012400	.0002328	-.000263	-.214834	-.000018	.0007078
#2	-.000185	.0111407	.0003997	-.000049	-.223468	.000536	.0007083
#3	-.000039	-.009427	.0000881	-.000366	-.213883	-.001713	.0006927
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.064759	.0041725	-.000035	.0029980	-.000030	.0064944	-.000316
Stddev	.011310	.0002575	.000085	.0002684	.000267	.0023147	.001254
%RSD	17.46471	6.170619	241.1801	8.953754	901.6446	35.64099	396.1757
#1	-.075641	.0040040	.000061	.0028885	.000278	.0059091	-.001737
#2	-.065571	.0044689	-.000100	.0033038	-.000168	.0045286	.000153
#3	-.053065	.0040447	-.000068	.0028016	-.000199	.0090456	.000635

Sample Name: CCB05 Acquired: 11/14/2024 18:17:05 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.001906	.0000104	-.000020
Stddev	.001781	.0005287	.000022
%RSD	93.45052	5087.203	108.1845
#1	-.002508	-.000354	-.000029
#2	.000098	-.000231	-.000035
#3	-.003308	.000617	.000005

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2734.017	62370.90	13201.46	1910.510	4728.660
Stddev	4.947	1392.05	230.42	47.248	9.807
%RSD	.1809392	2.231893	1.745442	2.473082	.2073861
#1	2736.056	60770.35	13376.15	1856.280	4736.753
#2	2737.618	63299.57	13287.92	1932.454	4731.472
#3	2728.376	63042.79	12940.31	1942.796	4717.755

Sample Name: P4822-02MS Acquired: 11/14/2024 18:21:26 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7489217	1.696357	2.422174	1.416407	.5999779	149.2889
Stddev	.0041457	.028467	.005937	.008606	.0025571	.8625
%RSD	.5535616	1.678107	.2451137	.6075894	.4261979	.5777681
#1	.7536859	1.727878	2.423654	1.426293	.6024251	148.3130
#2	.7469438	1.688669	2.415637	1.410594	.6001851	149.6047
#3	.7461353	1.672524	2.427231	1.412333	.5973235	149.9491
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.066228	.1611109	.2195706	60.20522	.6430350	.3691260
Stddev	.003850	.0010096	.0007274	.55626	.0060276	.0011941
%RSD	.3610608	.6266566	.3312769	.9239475	.9373624	.3234809
#1	1.061801	.1600469	.2198773	59.56833	.6484611	.3693480
#2	1.068790	.1620555	.2187400	60.45149	.6440968	.3678365
#3	1.068092	.1612304	.2200943	60.59583	.6365470	.3701935
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7660792	246.8651	6.687021	105.5860	.7557688	.0665936
Stddev	.0048655	1.5466	.049009	1.1319	.0024322	.0008922
%RSD	.6351221	.6264835	.7328945	1.071990	.3218116	1.339764
#1	.7679886	247.9938	6.630672	104.3162	.7557327	.0672828
#2	.7605486	247.4992	6.719713	105.9529	.7533549	.0669122
#3	.7697004	245.1023	6.710678	106.4889	.7582188	.0655859
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.284667	.8577692	2.815447	60.17952	.3121608	.3205741
Stddev	.070165	.0079867	.026844	.55384	.0017241	.0015791
%RSD	1.327716	.9311034	.9534593	.9203195	.5523063	.4925887
#1	5.342080	.8490490	2.832255	60.70808	.3117678	.3223855
#2	5.305468	.8595299	2.829599	60.22702	.3140475	.3194877
#3	5.206453	.8647287	2.784488	59.60345	.3106672	.3198491

Sample Name: P4822-02MS Acquired: 11/14/2024 18:21:26 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6785039	F 10.23158	F 20.12117	F 16.83302	1.903231	.4777854
Stddev	.0022604	.06023	.11326	.05147	.013528	.0021752
%RSD	.3331478	.5886925	.5629063	.3057570	.7108051	.4552603
#1	.6789819	10.16205	20.24487	16.87997	1.918147	.4754278
#2	.6760426	10.26800	20.09612	16.77799	1.891755	.4797143
#3	.6804870	10.26468	20.02253	16.84110	1.899790	.4782142

Elem	Sr4077
Units	ppm
Avg	.2158898
Stddev	.0031695
%RSD	1.468100
#1	.2124027
#2	.2166711
#3	.2185956

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2925.493	68441.47	15530.68	2034.941	3592.164
Stddev	15.263	691.14	67.12	23.264	16.244
%RSD	.5217117	1.009829	.4321475	1.143235	.4522057
#1	2908.042	67795.37	15604.42	2017.846	3573.816
#2	2932.082	68358.84	15473.17	2025.543	3604.711
#3	2936.354	69170.22	15514.45	2061.434	3597.966

Sample Name: P4822-02MSD Acquired: 11/14/2024 18:25:22 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7485457	1.696148	2.396768	1.425367	.6037924	145.3795
Stddev	.0044948	.026727	.013532	.005173	.0057420	.8014
%RSD	.6004783	1.575748	.5646021	.3629154	.9509959	.5512719
#1	.7508879	1.687371	2.400512	1.431310	.6071430	144.7655
#2	.7433634	1.674913	2.408033	1.421882	.6070721	145.0869
#3	.7513857	1.726160	2.381758	1.422908	.5971622	146.2861
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.035952	.1595602	.2188445	58.58955	.6345590	.3650555
Stddev	.005406	.0007343	.0017724	.71449	.0044634	.0024014
%RSD	.5218120	.4601909	.8098864	1.219485	.7033794	.6578275
#1	1.030921	.1590639	.2201077	58.12456	.6294263	.3665727
#2	1.035268	.1592131	.2196075	58.23184	.6367219	.3663070
#3	1.041667	.1604037	.2168184	59.41224	.6375289	.3622868
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7616876	241.6381	6.483661	103.1458	.7481632	.0660943
Stddev	.0094914	3.0961	.076113	1.3582	.0050526	.0007408
%RSD	1.246100	1.281295	1.173918	1.316781	.6753295	1.120835
#1	.7702486	238.5119	6.428811	102.1793	.7512735	.0653229
#2	.7633332	241.6992	6.451615	102.5595	.7508826	.0661599
#3	.7514810	244.7032	6.570557	104.6987	.7423333	.0668002
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.171350	.8380758	2.762964	59.07939	.3095594	.3216731
Stddev	.034620	.0082978	.016781	.53663	.0030978	.0015647
%RSD	.6694661	.9901014	.6073389	.9083197	1.000699	.4864387
#1	5.131568	.8316196	2.753128	58.46117	.3061239	.3231917
#2	5.194648	.8351728	2.753425	59.42482	.3104144	.3217616
#3	5.187835	.8474351	2.782340	59.35219	.3121398	.3200660

Sample Name: P4822-02MSD Acquired: 11/14/2024 18:25:22 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6805783	9.994430	F 19.81795	F 16.53572	1.878186	.4651261
Stddev	.0039206	.080204	.16112	.00786	.010711	.0015621
%RSD	.5760726	.8024821	.8130122	.0475420	.5702731	.3358404
#1	.6829761	9.934494	19.64854	16.53936	1.889220	.4634429
#2	.6827050	9.963256	19.83604	16.54109	1.877507	.4654064
#3	.6760539	10.08554	19.96926	16.52669	1.867830	.4665291

Elem	Sr4077
Units	ppm
Avg	.2091956
Stddev	.0005444
%RSD	.2602244
#1	.2096681
#2	.2086003
#3	.2093183

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2958.174	69434.49	15891.84	2078.536	3650.457
Stddev	24.175	355.64	79.62	20.490	28.805
%RSD	.8172419	.5121918	.5010340	.9858006	.7890855
#1	2931.884	69844.01	15914.02	2088.767	3621.916
#2	2963.192	69256.14	15958.03	2091.896	3649.937
#3	2979.447	69203.31	15803.49	2054.945	3679.519

Sample Name: P4822-02A Acquired: 11/14/2024 18:29:19 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7517740	1.740225	2.411519	1.440545	.6100757	145.0494
Stddev	.0034032	.020781	.016806	.007903	.0035723	.4886
%RSD	.4526914	1.194146	.6968897	.5485834	.5855572	.3368540
#1	.7497835	1.725540	2.392121	1.431443	.6066045	144.6518
#2	.7498350	1.731132	2.420732	1.444535	.6098813	144.9015
#3	.7557036	1.764002	2.421703	1.445658	.6137412	145.5948
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.030660	.1594875	.2207731	58.19011	.6388009	.3682062
Stddev	.002856	.0002171	.0014767	.11440	.0050338	.0025836
%RSD	.2771433	.1361358	.6688673	.1965908	.7880053	.7016728
#1	1.028610	.1594634	.2190689	58.06873	.6360874	.3652230
#2	1.029448	.1597156	.2216729	58.20567	.6446092	.3696799
#3	1.033923	.1592834	.2215775	58.29593	.6357060	.3697156
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7658275	242.4850	6.428657	102.6166	.7549320	.0668669
Stddev	.0038514	.9247	.009523	.2029	.0045821	.0003342
%RSD	.5029063	.3813304	.1481412	.1977660	.6069601	.4998655
#1	.7613907	241.5646	6.420100	102.4021	.7497380	.0664822
#2	.7677833	243.4139	6.426953	102.6423	.7584026	.0670325
#3	.7683086	242.4766	6.438917	102.8055	.7566553	.0670860
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.191701	.8355456	2.763679	59.42060	.3111305	.3249724
Stddev	.025308	.0009584	.022283	.26120	.0015739	.0016867
%RSD	.4874750	.1147017	.8062944	.4395806	.5058749	.5190372
#1	5.163391	.8345360	2.738882	59.13659	.3093162	.3232070
#2	5.212134	.8356579	2.782025	59.65053	.3119454	.3251426
#3	5.199578	.8364429	2.770131	59.47468	.3121299	.3265676

Sample Name: P4822-02A Acquired: 11/14/2024 18:29:19 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6839903	9.980844	F 20.18794	F 16.66014	1.891477	.4624673
Stddev	.0029053	.016776	.10998	.16982	.016502	.0011948
%RSD	.4247525	.1680785	.5447913	1.019322	.8724513	.2583520
#1	.6809144	9.966439	20.06544	16.48579	1.874737	.4618149
#2	.6843685	9.976831	20.27820	16.66958	1.891965	.4617407
#3	.6866879	9.999262	20.22017	16.82504	1.907730	.4638462

Elem	Sr4077
Units	ppm
Avg	.2056614
Stddev	.0010732
%RSD	.5218121
#1	.2054990
#2	.2046787
#3	.2068065

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2942.511	69173.25	15992.14	2062.822	3629.757
Stddev	4.151	208.13	20.82	17.823	11.926
%RSD	.1410611	.3008890	.1301842	.8640309	.3285646
#1	2947.300	69383.53	15982.14	2083.382	3643.526
#2	2940.281	68967.33	16016.07	2053.352	3623.074
#3	2939.951	69168.88	15978.20	2051.733	3622.671

Sample Name: P4822-04 Acquired: 11/14/2024 18:33:15 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1491290	-.039377	2.114430	-.052754	.0012267	174.2180
Stddev	.0032188	.001976	.002630	.002561	.0009215	2.3204
%RSD	2.158419	5.017621	.1243915	4.853650	75.11819	1.331889
#1	.1518552	-.041577	2.116413	-.055706	.0014837	171.8142
#2	.1455781	-.038801	2.111446	-.051133	.0019924	174.3949
#3	.1499538	-.037753	2.115431	-.051424	.0002040	176.4448
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9898708	.0164988	.0486136	101.4414	.3699691	.2223862
Stddev	.0144629	.0002756	.0009903	1.6088	.0072192	.0009669
%RSD	1.461091	1.670465	2.037106	1.585948	1.951289	.4348083
#1	.9771490	.0162121	.0496400	99.8134	.3616967	.2233326
#2	.9868620	.0165227	.0485369	101.4804	.3732156	.2224262
#3	1.005602	.0167618	.0476639	103.0303	.3749951	.2213999
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7071542	265.6038	7.839906	141.1372	.3970783	.0095792
Stddev	.0080307	5.8363	.119760	2.4151	.0003860	.0002941
%RSD	1.135636	2.197366	1.527564	1.711187	.0972168	3.070513
#1	.7164111	258.9076	7.721348	138.8241	.3970763	.0092868
#2	.7029989	268.2940	7.837537	140.9449	.3966933	.0098751
#3	.7020525	269.6098	7.960832	143.6428	.3974653	.0095758
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.904907	.7163275	3.841867	52.86605	.1180335	.0145345
Stddev	.066255	.0120796	.070218	.98975	.0051777	.0003847
%RSD	2.280813	1.686319	1.827697	1.872184	4.386661	2.646443
#1	2.829305	.7056237	3.763919	51.74849	.1121376	.0149122
#2	2.932556	.7139343	3.861512	53.21769	.1201225	.0141433
#3	2.952859	.7294245	3.900170	53.63196	.1218403	.0145479

Sample Name: P4822-04 Acquired: 11/14/2024 18:33:15 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0938081	F 11.07304	F 21.93679	F 12.43351	1.783421	.3381103
Stddev	.0011188	.15335	.44030	.03107	.010659	.0049205
%RSD	1.192620	1.384871	2.007112	.2498960	.5976680	1.455281
#1	.0950991	10.92680	21.43148	12.42789	1.792627	.3339336
#2	.0932032	11.05969	22.14088	12.46701	1.785892	.3368628
#3	.0931220	11.23262	22.23801	12.40564	1.771743	.3435344

Elem	Sr4077
Units	ppm
Avg	.0413660
Stddev	.0032129
%RSD	7.766956
#1	.0441768
#2	.0378636
#3	.0420576

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3111.357	72971.84	16661.25	2218.480	3523.354
Stddev	12.875	1255.84	169.32	32.781	9.965
%RSD	.4138185	1.720994	1.016228	1.477622	.2828216
#1	3097.596	74421.26	16838.90	2256.327	3512.919
#2	3123.112	72208.06	16643.12	2199.062	3532.770
#3	3113.363	72286.20	16501.72	2200.050	3524.373

Sample Name: P4822-06 Acquired: 11/14/2024 18:37:27 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1423400	-.032572	1.898340	-.049634	.0070373	160.8770
Stddev	.0014028	.004437	.005177	.003069	.0017425	3.8641
%RSD	.9855582	13.62083	.2727171	6.183560	24.76018	2.401894
#1	.1439338	-.035254	1.898698	-.052543	.0051006	156.5962
#2	.1417938	-.027451	1.892993	-.049933	.0075334	161.9277
#3	.1412924	-.035012	1.903329	-.046427	.0084780	164.1070
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9175140	.0149432	.0428419	69.26612	.3832662	.1950160
Stddev	.0179599	.0002150	.0003546	1.76165	.0004217	.0008303
%RSD	1.957453	1.438823	.8276339	2.543313	.1100171	.4257356
#1	.8968027	.0146956	.0432409	67.23558	.3833812	.1956058
#2	.9269538	.0150829	.0425630	70.38683	.3827990	.1940666
#3	.9287855	.0150512	.0427216	70.17595	.3836184	.1953757
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6709657	249.7008	7.268839	109.4971	.3516727	.0084430
Stddev	.0028315	1.9154	.171552	2.7783	.0004876	.0003236
%RSD	.4220076	.7670869	2.360101	2.537345	.1386410	3.833100
#1	.6740531	247.5120	7.070793	106.3027	.3520443	.0080693
#2	.6684902	250.5201	7.371482	111.3509	.3511206	.0086264
#3	.6703536	251.0703	7.364244	110.8378	.3518532	.0086332
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.610373	.6877506	3.197182	47.55832	.1063201	.0162065
Stddev	.015907	.0163447	.009117	.14156	.0027959	.0004441
%RSD	.6093605	2.376545	.2851467	.2976455	2.629736	2.740458
#1	2.598639	.6688775	3.200900	47.42791	.1063467	.0165477
#2	2.604003	.6972361	3.203853	47.53818	.1035110	.0163674
#3	2.628477	.6971383	3.186794	47.70886	.1091027	.0157043

Sample Name: P4822-06 Acquired: 11/14/2024 18:37:27 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0807461	F 10.08177	F 18.99742	F 11.64039	3.062835	.3031869
Stddev	.0019178	.22277	.08677	.03291	.010989	.0057088
%RSD	2.375060	2.209596	.4567383	.2827497	.3587816	1.882920
#1	.0812896	9.82454	18.89759	11.67802	3.074914	.2966142
#2	.0823334	10.21086	19.03998	11.62620	3.060162	.3060377
#3	.0786152	10.20991	19.05469	11.61695	3.053429	.3069088

Elem	Sr4077
Units	ppm
Avg	.0508991
Stddev	.0041601
%RSD	8.173238
#1	.0461037
#2	.0535403
#3	.0530533

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3077.827	71885.05	16265.66	2194.137	3567.109
Stddev	3.944	165.82	249.58	1.659	7.750
%RSD	.1281579	.2306750	1.534405	.0756333	.2172651
#1	3076.639	71722.98	16549.46	2194.970	3563.700
#2	3082.229	71877.79	16080.37	2192.226	3575.979
#3	3074.614	72054.38	16167.14	2195.214	3561.647

Sample Name: P4822-08 Acquired: 11/14/2024 18:41:40 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1450244	-.027283	2.025177	-.050470	.0063339	166.0689
Stddev	.0028378	.004254	.002536	.000914	.0011783	.7835
%RSD	1.956810	15.59299	.1252062	1.810678	18.60307	.4717904
#1	.1446496	-.025851	2.022284	-.050439	.0067809	165.1877
#2	.1480310	-.032068	2.027011	-.049571	.0049976	166.3318
#3	.1423925	-.023929	2.026237	-.051398	.0072234	166.6871
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.027011	.0152605	.0443995	93.26761	.3778441	.2076763
Stddev	.003025	.0001500	.0004729	.57114	.0009298	.0004516
%RSD	.2945432	.9831006	1.065067	.6123698	.2460659	.2174305
#1	1.025751	.0154256	.0449369	92.62014	.3787437	.2071776
#2	1.024819	.0152232	.0442146	93.48276	.3779016	.2077937
#3	1.030462	.0151326	.0440470	93.69993	.3768869	.2080575
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7155326	262.0883	7.135035	114.3442	.3809989	.0085322
Stddev	.0028012	2.0198	.037005	.5848	.0010937	.0007837
%RSD	.3914886	.7706540	.5186424	.5114277	.2870487	9.185075
#1	.7187319	259.8547	7.097868	113.6767	.3809115	.0077406
#2	.7143454	262.6237	7.135361	114.7661	.3799516	.0085481
#3	.7135205	263.7864	7.171876	114.5898	.3821336	.0093077
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.115566	.6798164	3.706843	53.78164	.1313991	.0156143
Stddev	.014393	.0043197	.014954	.17305	.0014042	.0002313
%RSD	.4619707	.6354143	.4034120	.3217551	1.068625	1.481390
#1	3.098951	.6758263	3.711685	53.58306	.1297970	.0155975
#2	3.123523	.6792193	3.718776	53.86169	.1324161	.0153918
#3	3.124223	.6844035	3.690068	53.90017	.1319843	.0158535

Sample Name: P4822-08 Acquired: 11/14/2024 18:41:40 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1000202	9.894756	F 18.35171	F 13.22481	3.728047	.3315314
Stddev	.0028384	.033686	.14182	.07837	.027745	.0010904
%RSD	2.837840	.3404443	.7728056	.5925792	.7442133	.3288987
#1	.1022704	9.858554	18.18915	13.30073	3.759348	.3324273
#2	.0968314	9.900536	18.45010	13.22948	3.706483	.3318497
#3	.1009589	9.925179	18.41589	13.14421	3.718310	.3303173

Elem	Sr4077
Units	ppm
Avg	.1731337
Stddev	.0014976
%RSD	.8650087
#1	.1748210
#2	.1719619
#3	.1726181

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3125.517	72777.78	16942.57	2188.704	3650.103
Stddev	6.620	229.26	46.83	15.202	12.775
%RSD	.2117941	.3150174	.2764235	.6945712	.3499950
#1	3118.431	72905.56	16925.37	2193.957	3639.337
#2	3131.542	72513.10	16906.76	2171.572	3664.220
#3	3126.578	72914.67	16995.57	2200.583	3646.753

Sample Name: P4822-10 Acquired: 11/14/2024 18:45:51 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1503382	-.031874	1.462022	-.045527	.0012034	173.5326
Stddev	.0020389	.002471	.001836	.002212	.0008575	.3655
%RSD	1.356245	7.753171	.1255903	4.859541	71.25520	.2106503
#1	.1486487	-.029643	1.460559	-.044076	.0002933	173.9529
#2	.1497629	-.031449	1.461423	-.044433	.0019961	173.2891
#3	.1526030	-.034531	1.464082	-.048074	.0013209	173.3558
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8674859	.0159703	.0427957	62.67720	.3588300	.2061196
Stddev	.0066549	.0001238	.0003539	.21066	.0011323	.0003133
%RSD	.7671529	.7748843	.8270413	.3360990	.3155637	.1519921
#1	.8729218	.0160642	.0424489	62.91470	.3601332	.2060115
#2	.8694718	.0160165	.0427818	62.60398	.3580857	.2058746
#3	.8600641	.0158301	.0431564	62.51293	.3582712	.2064726
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5165227	256.0518	7.305463	120.3483	.3430457	.0087793
Stddev	.0019811	1.0118	.038707	.3138	.0009014	.0002471
%RSD	.3835443	.3951638	.5298334	.2607270	.2627618	2.814668
#1	.5142934	257.1664	7.345762	120.7079	.3422157	.0088879
#2	.5171934	255.1912	7.302053	120.1303	.3429168	.0089535
#3	.5180814	255.7978	7.268574	120.2066	.3440046	.0084965
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.017431	.7055129	2.731858	52.79926	.0991274	.0139223
Stddev	.022541	.0030116	.007773	.15181	.0009622	.0001358
%RSD	.7470301	.4268592	.2845354	.2875144	.9706472	.9753162
#1	3.032095	.7089144	2.738871	52.96717	.0992416	.0138467
#2	3.028723	.7044380	2.723501	52.75887	.0981132	.0140791
#3	2.991476	.7031863	2.733202	52.67173	.1000274	.0138412

Sample Name: P4822-10 Acquired: 11/14/2024 18:45:51 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0396887	F 10.89081	F 25.09638	F 12.26436	2.065589	.3431772
Stddev	.0010325	.05756	.06027	.02980	.010542	.0031020
%RSD	2.601394	.5285071	.2401623	.2429985	.5103629	.9039012
#1	.0389162	10.94564	25.13487	12.23084	2.057709	.3459669
#2	.0392886	10.89591	25.02692	12.27437	2.061493	.3437281
#3	.0408613	10.83086	25.12735	12.28786	2.077564	.3398367

Elem	Sr4077
Units	ppm
Avg	.0324786
Stddev	.0018607
%RSD	5.728988
#1	.0331064
#2	.0339441
#3	.0303852

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3171.177	74052.87	17189.31	2227.526	3607.093
Stddev	10.463	194.66	77.11	5.966	8.499
%RSD	.3299311	.2628651	.4486082	.2678121	.2356259
#1	3174.980	73845.34	17113.02	2224.278	3612.747
#2	3179.206	74231.41	17187.67	2234.411	3611.213
#3	3159.344	74081.85	17267.22	2223.890	3597.319

Sample Name: P4822-12 Acquired: 11/14/2024 18:50:03 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.1656589	-.030311	1.479675	-.055518	.0029345	191.8692
Stddev	.0021368	.006718	.019374	.002965	.0022363	.9804
%RSD	1.289901	22.16350	1.309321	5.340030	76.20834	.5109670
#1	.1631968	-.023943	1.457356	-.052142	.0016675	190.9439
#2	.1667500	-.029659	1.489521	-.056714	.0016194	191.7671
#3	.1670299	-.037331	1.492149	-.057698	.0055167	192.8966
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.049349	.0172124	.0515921	151.8494	.4185068	.2311318
Stddev	.003157	.0000981	.0012080	.7163	.0002640	.0035940
%RSD	.3008878	.5701418	2.341448	.4717359	.0630919	1.554945
#1	1.046956	.0171339	.0502912	151.0758	.4183558	.2271258
#2	1.048165	.0171809	.0518066	151.9829	.4183529	.2321964
#3	1.052928	.0173224	.0526785	152.4897	.4188117	.2340732
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5580274	286.4243	7.550095	128.5077	.3871422	.0101756
Stddev	.0073788	1.0783	.044332	.4091	.0056510	.0002805
%RSD	1.322300	.3764634	.5871673	.3183528	1.459668	2.756807
#1	.5497358	285.4925	7.502802	128.1288	.3806176	.0099394
#2	.5604753	287.6054	7.556775	128.4528	.3903289	.0104856
#3	.5638712	286.1750	7.590708	128.9415	.3904801	.0101017
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.248437	.7637819	2.919169	63.83724	.1259974	.0123119
Stddev	.008985	.0040280	.007965	.15975	.0008615	.0003904
%RSD	.2765885	.5273816	.2728658	.2502518	.6837502	3.170704
#1	3.238819	.7600919	2.919732	63.77504	.1250035	.0118637
#2	3.256614	.7631748	2.926839	64.01874	.1265309	.0125779
#3	3.249879	.7680790	2.910938	63.71795	.1264578	.0124940

Sample Name: P4822-12 Acquired: 11/14/2024 18:50:03 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0346623	F 11.38953	F 17.52364	F 13.81610	3.551545	.3721716
Stddev	.0014455	.02889	.05133	.16177	.042896	.0005227
%RSD	4.170084	.2536683	.2928953	1.170873	1.207821	.1404463
#1	.0351490	11.36430	17.51743	13.63492	3.502382	.3719978
#2	.0330364	11.38325	17.57778	13.86731	3.570899	.3717580
#3	.0358017	11.42105	17.47569	13.94606	3.581354	.3727591

Elem	Sr4077
Units	ppm
Avg	.4709532
Stddev	.0014129
%RSD	.3000063
#1	.4724617
#2	.4696608
#3	.4707371

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3024.783	72142.23	16858.70	2155.032	3408.308
Stddev	19.111	220.43	18.89	19.360	34.370
%RSD	.6318115	.3055466	.1120523	.8983669	1.008421
#1	3046.658	72029.66	16846.86	2142.246	3447.979
#2	3011.323	72000.82	16880.48	2145.544	3387.477
#3	3016.369	72396.21	16848.75	2177.306	3389.469

Sample Name: P4823-01 Acquired: 11/14/2024 18:54:29 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0489826	-.007909	.4271313	-.024103	.0028259	86.51171
Stddev	.0017616	.001100	.0020612	.001057	.0006435	.28051
%RSD	3.596456	13.90989	.4825709	4.386033	22.77202	.3242399
#1	.0490690	-.007454	.4272999	-.024454	.0035582	86.24761
#2	.0506995	-.009163	.4249910	-.024939	.0025684	86.48137
#3	.0471794	-.007109	.4291030	-.022914	.0023510	86.80615
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5314983	.0075340	.0142581	41.44309	.1423347	.0952852
Stddev	.0021182	.0000371	.0001638	.19715	.0003265	.0006551
%RSD	.3985327	.4923111	1.148676	.4757155	.2293639	.6874942
#1	.5290524	.0075556	.0144462	41.21580	.1426233	.0950392
#2	.5327198	.0075552	.0141476	41.54567	.1419804	.0947888
#3	.5327227	.0074911	.0141804	41.56779	.1424005	.0960277
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4379494	152.7274	4.525997	34.07564	.1576226	.0046864
Stddev	.0026369	.5091	.017881	.15717	.0006557	.0003707
%RSD	.6021107	.3333147	.3950810	.4612340	.4159952	7.910941
#1	.4371010	152.1541	4.505868	33.89446	.1572354	.0042932
#2	.4358411	153.1263	4.540043	34.17528	.1572527	.0050296
#3	.4409061	152.9019	4.532079	34.15718	.1583797	.0047365
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.92727	.2805130	.5201636	14.95297	.2866639	.0062510
Stddev	.01692	.0018813	.0011585	.04923	.0000656	.0003921
%RSD	.0894084	.6706640	.2227257	.3292162	.0228906	6.273058
#1	18.91001	.2783413	.5189134	14.89996	.2866298	.0064596
#2	18.92797	.2816424	.5212009	14.96170	.2866224	.0057987
#3	18.94383	.2815554	.5203767	14.99725	.2867396	.0064947

Sample Name: P4823-01 Acquired: 11/14/2024 18:54:29 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0281980	4.031022	F 21.07828	7.350700	1.649113	.1140577
Stddev	.0009423	.013262	.04124	.020170	.010844	.0004268
%RSD	3.341833	.3289877	.1956297	.2743927	.6575875	.3741838
#1	.0283299	4.015899	21.03214	7.330120	1.638894	.1135705
#2	.0271967	4.036498	21.11152	7.370433	1.647955	.1142371
#3	.0290675	4.040668	21.09118	7.351547	1.660490	.1143655

Elem	Sr4077
Units	ppm
Avg	.0453247
Stddev	.0003565
%RSD	.7864302
#1	.0450399
#2	.0452099
#3	.0457245

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2908.030	67547.90	15330.98	2038.177	3840.983
Stddev	12.789	212.73	42.37	8.971	17.451
%RSD	.4397718	.3149285	.2763819	.4401675	.4543360
#1	2908.633	67378.40	15303.72	2035.129	3837.864
#2	2920.507	67478.69	15309.43	2031.127	3859.783
#3	2894.951	67786.61	15379.80	2048.275	3825.302

Sample Name: P4722-05 Acquired: 11/14/2024 18:58:33 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0038722	-.009703	.0136650	-.000664	.0066877	.3105432
Stddev	.0005139	.001520	.0004881	.002541	.0007615	.0096062
%RSD	13.27199	15.66220	3.571806	382.6823	11.38684	3.093357
#1	.0037045	-.010793	.0140661	-.003598	.0064673	.3214992
#2	.0044490	-.010349	.0138073	.000778	.0060607	.3035640
#3	.0034631	-.007967	.0131215	.000828	.0075351	.3065664
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2179540	-.000197	.0004202	315.2588	.0092655	.0035064
Stddev	.0009601	.000032	.0000926	1.6253	.0000950	.0001201
%RSD	.4404840	16.45612	22.04907	.5155453	1.025038	3.424205
#1	.2170530	-.000168	.0004392	315.9401	.0092411	.0033800
#2	.2178452	-.000190	.0003195	313.4037	.0091852	.0036190
#3	.2189638	-.000232	.0005018	316.4325	.0093703	.0035203
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0157327	.7254187	.6421302	12.39735	.0059848	-.000502
Stddev	.0002925	.0083955	.0020007	.04364	.0002104	.000092
%RSD	1.858945	1.157325	.3115763	.3520038	3.515944	18.36281
#1	.0157970	.7216575	.6411824	12.42071	.0058436	-.000401
#2	.0154134	.7195615	.6407795	12.34700	.0062267	-.000582
#3	.0159876	.7350371	.6444287	12.42434	.0058842	-.000522
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.86677	.0044719	.1358129	8.367224	.0787634	.0302419
Stddev	.19763	.0007548	.0001540	.032075	.0010890	.0006443
%RSD	.9471030	16.87923	.1133981	.3833448	1.382580	2.130445
#1	20.65240	.0048229	.1359676	8.330264	.0798565	.0301875
#2	20.90616	.0036055	.1358116	8.387778	.0776786	.0296265
#3	21.04173	.0049873	.1356595	8.383630	.0787551	.0309116

Sample Name: P4722-05 Acquired: 11/14/2024 18:58:33 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.005759	.0077362	6.489744	.0727078	F 122.5358	-.037858
Stddev	.000780	.0000775	.041458	.0011811	2.0652	.000604
%RSD	13.54892	1.002031	.6388206	1.624424	1.685370	1.596647
#1	-.005654	.0076780	6.458671	.0721979	121.3291	-.038185
#2	-.005037	.0077064	6.473743	.0740582	121.3580	-.037161
#3	-.006587	.0078242	6.536818	.0718674	124.9204	-.038230

Elem	Sr4077
Units	ppm
Avg	1.443807
Stddev	.017422
%RSD	1.206645
#1	1.462926
#2	1.439662
#3	1.428831

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2409.170	56776.18	12834.96	1723.319	3901.057
Stddev	34.679	95.90	47.96	4.311	57.791
%RSD	1.439469	.1689059	.3736938	.2501549	1.481418
#1	2425.621	56764.94	12781.19	1719.642	3933.176
#2	2432.561	56877.20	12873.36	1728.063	3935.655
#3	2369.326	56686.39	12850.32	1722.250	3834.341

Sample Name: CCV06 Acquired: 11/14/2024 19:03:05 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.766101	4.958053	4.821432	4.724869	4.753076	9.672029	9.916254
Stddev	.018578	.099481	.008672	.016992	.015634	.024873	.062609
%RSD	.3898023	2.006445	.1798533	.3596223	.3289211	.2571592	.6313820
#1	4.747009	4.847538	4.824398	4.707438	4.741013	9.654594	9.939548
#2	4.767175	5.040444	4.828231	4.725786	4.747476	9.700512	9.963878
#3	4.784119	4.986176	4.811666	4.741384	4.770739	9.660982	9.845337
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2501826	2.403829	24.47551	.9710637	2.401760	1.206727	4.839234
Stddev	.0014110	.006008	.16128	.0022333	.004604	.003352	.028858
%RSD	.5639720	.2499291	.6589414	.2299876	.1917133	.2778047	.5963278
#1	.2501725	2.407927	24.34206	.9685061	2.405251	1.203302	4.814372
#2	.2515986	2.406627	24.65472	.9720564	2.403487	1.206877	4.832450
#3	.2487767	2.396932	24.42975	.9726286	2.396541	1.210001	4.870879
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.460393	23.85664	2.410919	1.212853	24.97771	2.429935	2.421314
Stddev	.011450	.15190	.003371	.001832	.11459	.013478	.005737
%RSD	.4653848	.6367278	.1398335	.1510303	.4587715	.5546848	.2369199
#1	2.453752	23.70149	2.413140	1.211335	25.10954	2.416422	2.420637
#2	2.473614	24.00507	2.412578	1.212336	24.92168	2.443378	2.415946
#3	2.453812	23.86335	2.407040	1.214888	24.90191	2.430005	2.427359
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.76996	4.968005	4.828048	4.814036	4.848478	4.785095	4.935766
Stddev	.09568	.031415	.012311	.016568	.017358	.040029	.027884
%RSD	.4025081	.6323533	.2549915	.3441663	.3579991	.8365321	.5649424
#1	23.80334	4.968627	4.814846	4.812717	4.840269	4.748797	4.903676
#2	23.66206	4.999105	4.830083	4.831225	4.868418	4.778464	4.954097
#3	23.84447	4.936283	4.839214	4.798167	4.836748	4.828026	4.949523

Sample Name: CCV06 Acquired: 11/14/2024 19:03:05 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.685086	4.826857	4.986644
Stddev	.012379	.029011	.015648
%RSD	.2642246	.6010429	.3137988
#1	4.673172	4.855561	4.982011
#2	4.697883	4.827464	5.004086
#3	4.684204	4.797547	4.973836

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2645.412	59285.85	12933.88	1883.818	4157.429
Stddev	8.863	174.93	55.73	7.477	3.137
%RSD	.3350318	.2950617	.4308995	.3968803	.0754650
#1	2652.992	59412.10	12944.85	1887.440	4161.003
#2	2647.576	59359.28	12873.48	1888.793	4155.132
#3	2635.667	59086.17	12983.31	1875.220	4156.151

Sample Name: CCB06 Acquired: 11/14/2024 19:07:16 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0004898	-.001381	-.000179	-.001858	.0001344	.0001972	-.000003
Stddev	.0011988	.000696	.000978	.001806	.0009894	.0022844	.000069
%RSD	244.7342	50.41647	546.4810	97.15562	736.4172	1158.618	2197.793
#1	-.000602	-.000960	-.000945	-.003795	-.000026	-.000024	-.000067
#2	.000298	-.000998	.000922	-.001558	-.000765	-.001969	-.000012
#3	.001773	-.002185	-.000514	-.000222	.001194	.002584	.000070
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000466	-.000039	.0116620	-.000212	.0001630	-.000060	.0022306
Stddev	.0000614	.000050	.0075414	.000195	.0000535	.000194	.0010711
%RSD	131.7180	128.5614	64.66622	91.95815	32.81948	322.7970	48.01745
#1	-.000000	-.000094	.0201853	-.000094	.0001776	-.000177	.0021879
#2	.000116	-.000024	.0089458	-.000105	.0002076	.000164	.0033225
#3	.000024	.000002	.0058550	-.000437	.0001037	-.000167	.0011816
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000622	.0052607	.0001345	-.000129	-.249474	.0004923	.0006838
Stddev	.0000475	.0016797	.0001941	.000152	.012531	.0002773	.0001563
%RSD	76.37918	31.92894	144.3485	118.4798	5.022849	56.32671	22.85252
#1	.0000599	.0068171	-.000024	.000022	-.263277	.0003051	.0007008
#2	.0001107	.0034802	.000077	-.000126	-.246330	.0003610	.0008310
#3	.0000158	.0054849	.000351	-.000283	-.238814	.0008109	.0005198
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.066983	.0033812	.0000012	.0029739	.0000912	.0050167	.0002904
Stddev	.018473	.0005732	.0001574	.0004609	.0003371	.0030120	.0018852
%RSD	27.57835	16.95319	13430.58	15.49715	369.4615	60.03873	649.1109
#1	-.066892	.0029565	-.000157	.0025550	.0004102	.0031147	-.001582
#2	-.048556	.0040332	.000003	.0028992	-.000261	.0034461	.000265
#3	-.085501	.0031539	.000157	.0034676	.000125	.0084894	.002188

Sample Name: CCB06 Acquired: 11/14/2024 19:07:16 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0027895	-.000535	.0000124
Stddev	.0009730	.000384	.0000278
%RSD	34.88137	71.71603	223.9562
#1	.0033383	-.000244	.0000359
#2	.0016661	-.000392	.0000197
#3	.0033641	-.000970	-.000018

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2767.528	63507.72	13235.80	1960.929	4747.008
Stddev	6.615	179.00	10.31	15.060	6.174
%RSD	.2390061	.2818622	.0779201	.7679936	.1300537
#1	2766.123	63481.45	13242.79	1966.730	4739.887
#2	2774.732	63698.41	13240.66	1972.226	4750.868
#3	2761.729	63343.31	13223.96	1943.831	4750.268

Sample Name: P4722-10 Acquired: 11/14/2024 19:11:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000675	-.007285	.0284293	-.000761	.0068219	.0119192
Stddev	.002205	.002667	.0014253	.002016	.0008473	.0060072
%RSD	326.4618	36.60865	5.013667	265.0376	12.42062	50.39964
#1	.001319	-.004717	.0295678	.000938	.0059468	.0171755
#2	-.003044	-.007097	.0288894	-.002989	.0076384	.0132108
#3	-.000301	-.010040	.0268307	-.000231	.0068804	.0053712
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1553567	-.000120	.0006383	288.4599	.0045126	-.000147
Stddev	.0009414	.000036	.0000133	1.3037	.0001639	.000213
%RSD	.6059682	29.73360	2.081731	.4519464	3.633003	145.4205
#1	.1564136	-.000121	.0006484	289.3809	.0046063	-.000111
#2	.1550483	-.000156	.0006433	289.0306	.0046081	-.000376
#3	.1546081	-.000084	.0006233	286.9682	.0043233	.000047
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0163383	.0764369	.0293051	7.643848	.0024213	-.000611
Stddev	.0001690	.0040613	.0001959	.048811	.0002868	.000154
%RSD	1.034251	5.313243	.6684232	.6385622	11.84344	25.18032
#1	.0164203	.0766010	.0294939	7.692414	.0025906	-.000703
#2	.0161440	.0722960	.0291029	7.644335	.0020902	-.000697
#3	.0164506	.0804136	.0293186	7.594796	.0025831	-.000433
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.63346	.0050251	.3135310	6.533266	.0697045	.0044725
Stddev	.05590	.0010038	.0008493	.008975	.0001274	.0001226
%RSD	.1614082	19.97640	.2708682	.1373747	.1827905	2.740152
#1	34.56902	.0061417	.3136410	6.523172	.0698215	.0043577
#2	34.66252	.0041972	.3143199	6.536281	.0695687	.0044582
#3	34.66885	.0047365	.3126321	6.540346	.0697232	.0046015

Sample Name: P4722-10 Acquired: 11/14/2024 19:11:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-0.006150	-0.004870	6.546345	.0976982	F 112.9625	-.022737
Stddev	.001156	.000493	.014075	.0007428	1.3065	.000149
%RSD	18.79453	10.12789	.2150099	.7603215	1.156592	.6568776
#1	-0.005306	-0.004359	6.535546	.0982839	112.7171	-.022907
#2	-0.005677	-0.004907	6.541226	.0979480	111.7961	-.022625
#3	-0.007468	-0.005343	6.562264	.0968627	114.3743	-.022680

Elem	Sr4077
Units	ppm
Avg	1.167732
Stddev	.003655
%RSD	.3129799
#1	1.167484
#2	1.171505
#3	1.164208

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2407.868	55743.06	12912.53	1665.081	3912.432
Stddev	25.950	93.42	55.50	3.477	43.722
%RSD	1.077704	.1675892	.4298043	.2087890	1.117524
#1	2414.032	55797.85	12881.13	1668.170	3922.734
#2	2430.180	55635.19	12879.84	1661.316	3950.084
#3	2379.391	55796.14	12976.61	1665.758	3864.479

Sample Name: P4722-15 Acquired: 11/14/2024 19:16:08 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.001933	-.009558	.0256600	.0019118	.0053964	.0589247
Stddev	.001751	.002326	.0006894	.0014517	.0014162	.0038206
%RSD	90.59993	24.33216	2.686556	75.93285	26.24292	6.483875
#1	-.002441	-.008167	.0254418	.0003186	.0063241	.0632964
#2	.000016	-.008265	.0251062	.0031597	.0037663	.0562260
#3	-.003374	-.012243	.0264321	.0022570	.0060986	.0572516
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1532017	-.000142	.0006297	334.1873	.0025531	-.000623
Stddev	.0012869	.000029	.0000373	1.5967	.0002594	.000117
%RSD	.8399872	20.28244	5.929665	.4777831	10.16065	18.85944
#1	.1545862	-.000109	.0006065	335.8092	.0022658	-.000626
#2	.1520421	-.000163	.0006098	332.6171	.0027702	-.000504
#3	.1529767	-.000153	.0006727	334.1355	.0026233	-.000738
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0208241	.1924781	.0433505	13.82130	.0077084	-.000781
Stddev	.0001746	.0008974	.0003648	.08682	.0001964	.000190
%RSD	.8384294	.4662284	.8413932	.6281752	2.548149	24.30752
#1	.0206997	.1935138	.0435362	13.91524	.0078309	-.000832
#2	.0207490	.1919870	.0429303	13.80466	.0078125	-.000571
#3	.0210237	.1919334	.0435849	13.74400	.0074818	-.000940
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.25715	.0042971	.1102145	6.655439	.0853202	.0086213
Stddev	.53952	.0009120	.0013808	.063988	.0008194	.0000724
%RSD	1.374315	21.22476	1.252785	.9614402	.9603259	.8398902
#1	39.06247	.0033420	.1094473	6.619998	.0861321	.0086996
#2	38.84199	.0043903	.1093877	6.617012	.0853350	.0085568
#3	39.86699	.0051590	.1118085	6.729306	.0844936	.0086073

Sample Name: P4722-15 Acquired: 11/14/2024 19:16:08 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.003315	-.002816	6.515511	.1200243	F 146.8813	-.048895
Stddev	.000329	.001034	.069897	.0034631	1.0855	.000097
%RSD	9.937554	36.71172	1.072776	2.885324	.7390076	.1991916
#1	-.003695	-.003467	6.466996	.1233904	146.1534	-.049005
#2	-.003143	-.003356	6.483910	.1164718	146.3617	-.048819
#3	-.003108	-.001624	6.595629	.1202108	148.1289	-.048862

Elem	Sr4077
Units	ppm
Avg	1.573659
Stddev	.017165
%RSD	1.090761
#1	1.584139
#2	1.582987
#3	1.553850

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2353.644	54263.21	12667.97	1616.134	3829.777
Stddev	4.606	442.44	88.44	9.732	9.735
%RSD	.1957101	.8153541	.6981246	.6021517	.2541864
#1	2358.960	54418.26	12570.88	1618.937	3839.463
#2	2350.845	54607.26	12689.14	1624.157	3829.872
#3	2351.126	53764.12	12743.91	1605.309	3819.995

Sample Name: P4722-15DUP Acquired: 11/14/2024 19:20:41 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.002814	-.007538	.0265463	.0032712	.0065352	.0582189
Stddev	.003852	.000885	.0007394	.0024221	.0010374	.0015604
%RSD	136.9139	11.73747	2.785374	74.04318	15.87350	2.680303
#1	-.000055	-.008476	.0273456	.0005012	.0062258	.0594743
#2	-.007215	-.006718	.0258868	.0043220	.0076921	.0564718
#3	-.001171	-.007422	.0264065	.0049904	.0056877	.0587107
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1531537	-.000112	.0007228	333.6213	.0028213	-.000531
Stddev	.0019129	.000008	.0000595	.4512	.0000902	.000240
%RSD	1.249016	7.578932	8.237962	.1352460	3.198514	45.25610
#1	.1535861	-.000103	.0006541	333.2890	.0029168	-.000764
#2	.1548135	-.000111	.0007550	333.4400	.0028097	-.000546
#3	.1510616	-.000120	.0007593	334.1350	.0027374	-.000284
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0211984	.1904134	.0434993	13.67933	.0076120	-.000584
Stddev	.0004794	.0053297	.0002732	.05244	.0005579	.000187
%RSD	2.261390	2.799009	.6281057	.3833853	7.328506	32.07913
#1	.0216541	.1849410	.0432330	13.70465	.0073411	-.000511
#2	.0212428	.1955879	.0437790	13.71430	.0082536	-.000444
#3	.0206984	.1907112	.0434859	13.61903	.0072413	-.000797
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.07176	.0040463	.1084778	6.627059	.0853081	.0085537
Stddev	.16832	.0003990	.0003255	.029924	.0005729	.0001935
%RSD	.4308048	9.860083	.3000633	.4515403	.6715482	2.261829
#1	39.09050	.0042254	.1084390	6.629873	.0855809	.0083850
#2	39.22993	.0035892	.1081735	6.655476	.0856937	.0087649
#3	38.89485	.0043244	.1088210	6.595828	.0846498	.0085114

Sample Name: P4722-15DUP Acquired: 11/14/2024 19:20:41 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.003346	-.003346	6.427119	.1180302	F 147.9627	-.049306
Stddev	.000629	.000336	.036037	.0008179	.1637	.000917
%RSD	18.78704	10.03919	.5607047	.6929221	.1106349	1.859588
#1	-.004042	-.003693	6.387301	.1171605	147.7995	-.049316
#2	-.003179	-.003322	6.457496	.1187837	148.1269	-.048384
#3	-.002818	-.003023	6.436560	.1181465	147.9616	-.050217

Elem	Sr4077
Units	ppm
Avg	1.559537
Stddev	.020530
%RSD	1.316405
#1	1.564235
#2	1.577311
#3	1.537066

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2343.401	55044.17	12737.88	1640.977	3811.596
Stddev	6.240	78.10	107.89	4.824	9.619
%RSD	.2662994	.1418892	.8469653	.2939944	.2523714
#1	2346.318	55132.43	12676.69	1639.026	3813.306
#2	2347.648	55016.07	12674.50	1637.433	3820.245
#3	2336.236	54984.00	12862.45	1646.471	3801.236

Sample Name: P4722-15LX5 Acquired: 11/14/2024 19:25:14 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000626	-.001723	.0045930	-.000493	.0008630	-.007106
Stddev	.001977	.002052	.0011107	.000861	.0006214	.003982
%RSD	315.8920	119.1291	24.18284	174.4563	72.00516	56.03596
#1	-.001532	-.002709	.0045192	.000227	.0003338	-.006755
#2	.001642	.000636	.0057388	-.000261	.0007080	-.003311
#3	-.001987	-.003095	.0035210	-.001446	.0015473	-.011252
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0316295	-.000005	.0001195	70.62874	.0002509	-.000003
Stddev	.0004054	.000022	.0000531	.39166	.0001494	.000171
%RSD	1.281734	419.3142	44.46202	.5545339	59.55194	6299.444
#1	.0311763	.000010	.0000845	70.34705	.0003107	.000183
#2	.0319576	-.000030	.0001807	71.07599	.0000809	-.000038
#3	.0317547	.000005	.0000934	70.46318	.0003612	-.000153
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043233	.0436615	.0093872	2.920055	.0019099	-.000484
Stddev	.0003597	.0030771	.0002299	.028870	.0002396	.000069
%RSD	8.321067	7.047529	2.448617	.9886772	12.54629	14.22263
#1	.0043244	.0410730	.0094331	2.892511	.0021643	-.000458
#2	.0039630	.0428479	.0095906	2.950090	.0016885	-.000433
#3	.0046825	.0470636	.0091378	2.917564	.0018770	-.000562
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.958910	.0009763	.0221951	1.260058	.0197210	.0016782
Stddev	.041791	.0006992	.0002701	.015919	.0008551	.0001878
%RSD	.6005413	71.62009	1.217000	1.263324	4.335901	11.18780
#1	6.986048	.0011769	.0222744	1.241914	.0187350	.0016291
#2	6.979898	.0001987	.0224166	1.266578	.0202585	.0018856
#3	6.910785	.0015534	.0218942	1.271682	.0201696	.0015198

Sample Name: P4722-15LX5 Acquired: 11/14/2024 19:25:14 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0065230	-.000517	1.280937	.0238219	F 30.10694	-.010955
Stddev	.0000218	.000308	.005972	.0022375	.20832	.000159
%RSD	.3347524	59.55454	.4661888	9.392671	.6919393	1.450696
#1	.0065106	-.000872	1.281211	.0214180	30.34740	-.010948
#2	.0065102	-.000353	1.286767	.0258439	29.98089	-.010799
#3	.0065482	-.000326	1.274834	.0242037	29.99253	-.011116

Elem	Sr4077
Units	ppm
Avg	.3295326
Stddev	.0018586
%RSD	.5640236
#1	.3298161
#2	.3312332
#3	.3275485

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2621.336	59925.32	13213.65	1848.953	4333.358
Stddev	12.783	107.64	57.15	16.216	14.156
%RSD	.4876453	.1796235	.4324748	.8770638	.3266759
#1	2631.789	59890.02	13235.59	1852.099	4342.473
#2	2625.135	59839.76	13148.79	1831.394	4340.551
#3	2607.085	60046.17	13256.58	1863.366	4317.050

Sample Name: P4722-15MS Acquired: 11/14/2024 19:29:33 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.7918398	1.738134	.9024207	1.853295	.7802304	1.966195
Stddev	.0055953	.056897	.0030724	.010579	.0019349	.024858
%RSD	.7066193	3.273476	.3404571	.5708389	.2479951	1.264277
#1	.7886363	1.673016	.8988803	1.841517	.7782154	1.939719
#2	.7885824	1.763141	.9039948	1.856376	.7804022	1.969830
#3	.7983006	1.778245	.9043871	1.861991	.7820738	1.989035
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3446446	.1876970	.1796493	329.6725	.3769091	.1829600
Stddev	.0024820	.0006497	.0006411	2.0728	.0008594	.0009810
%RSD	.7201742	.3461625	.3568632	.6287507	.2280219	.5361736
#1	.3417880	.1871888	.1789173	327.3637	.3763996	.1818379
#2	.3462744	.1874732	.1801111	330.2803	.3764262	.1836551
#3	.3458713	.1884291	.1799194	331.3735	.3779013	.1833869
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2976428	3.022863	.2315062	15.21665	.4628255	.0714326
Stddev	.0016802	.010058	.0012054	.09424	.0016859	.0001016
%RSD	.5645113	.3327152	.5206612	.6192934	.3642596	.1422743
#1	.2957618	3.011303	.2301543	15.13293	.4609313	.0715464
#2	.2981717	3.027674	.2318957	15.19831	.4641616	.0714008
#3	.2989950	3.029611	.2324687	15.31871	.4633835	.0713507
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.66878	.2907928	.3031237	16.22704	.3437562	.4107965
Stddev	.15893	.0040100	.0013457	.07148	.0009815	.0015208
%RSD	.3907906	1.378994	.4439508	.4405023	.2855341	.3701948
#1	40.48671	.2863162	.3018569	16.18558	.3430113	.4092271
#2	40.77970	.2920063	.3045365	16.30958	.3433889	.4108988
#3	40.73994	.2940559	.3029779	16.18597	.3448684	.4122634

Sample Name: P4722-15MS Acquired: 11/14/2024 19:29:33 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6422520	.1882239	6.844135	5.949127	F 145.1073	.1555016
Stddev	.0022996	.0015922	.029247	.079014	1.2564	.0015975
%RSD	.3580577	.8458785	.4273249	1.328165	.8658616	1.027289
#1	.6396256	.1864574	6.810981	5.858207	143.6594	.1536679
#2	.6439045	.1895483	6.866278	6.001182	145.9112	.1565918
#3	.6432258	.1886660	6.855147	5.987990	145.7512	.1562452

Elem	Sr4077
Units	ppm
Avg	1.728603
Stddev	.017707
%RSD	1.024332
#1	1.710749
#2	1.728901
#3	1.746159

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2414.117	56243.48	12623.97	1716.792	3878.940
Stddev	6.612	152.35	69.58	11.962	9.618
%RSD	.2739090	.2708768	.5511827	.6967420	.2479571
#1	2420.861	56419.35	12701.31	1728.852	3889.711
#2	2413.847	56159.08	12604.18	1704.931	3871.209
#3	2407.644	56152.00	12566.44	1716.592	3875.899

Sample Name: P4722-15MSD Acquired: 11/14/2024 19:33:48 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.8289168	1.850143	.9367740	1.964274	.8107441	2.029459
Stddev	.0043988	.022622	.0013952	.001601	.0020951	.003536
%RSD	.5306735	1.222730	.1489386	.0815218	.2584143	.1742511
#1	.8274152	1.866903	.9381297	1.964918	.8131268	2.029044
#2	.8338698	1.859115	.9353423	1.965454	.8091903	2.026148
#3	.8254653	1.824411	.9368499	1.962451	.8099153	2.033184
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3521609	.1919649	.1869676	334.3519	.3902776	.1898662
Stddev	.0009530	.0010541	.0001244	1.5070	.0034548	.0001005
%RSD	.2706033	.5491149	.0665604	.4507305	.8852174	.0529197
#1	.3510930	.1921093	.1871106	334.9346	.3886550	.1897561
#2	.3529246	.1908461	.1868846	332.6405	.3879329	.1899529
#3	.3524651	.1929394	.1869074	335.4805	.3942451	.1898895
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3108628	3.151548	.2385436	15.47525	.4795325	.0741917
Stddev	.0001692	.038722	.0013983	.06849	.0009217	.0003145
%RSD	.0544286	1.228655	.5861630	.4425462	.1921992	.4239745
#1	.3109185	3.111379	.2369388	15.40649	.4805825	.0740883
#2	.3109971	3.154626	.2391927	15.47580	.4788575	.0739418
#3	.3106727	3.188639	.2394994	15.54346	.4791574	.0745449
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.89684	.3002971	.3146518	16.81438	.3493525	.4272796
Stddev	.30166	.0011373	.0026036	.11404	.0020971	.0010006
%RSD	.7199960	.3787375	.8274464	.6782356	.6002667	.2341792
#1	41.54927	.3012145	.3125416	16.68318	.3491464	.4273712
#2	42.05076	.2990246	.3138525	16.88980	.3473661	.4282312
#3	42.09048	.3006522	.3175613	16.87015	.3515450	.4262363

Sample Name: P4722-15MSD Acquired: 11/14/2024 19:33:48 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6627295	.1924736	7.018165	6.211078	F 148.6303	.1614399
Stddev	.0036288	.0008684	.058730	.019598	.6641	.0011261
%RSD	.5475539	.4512055	.8368238	.3155320	.4467941	.6975506
#1	.6650819	.1914711	6.950404	6.224503	149.1674	.1602058
#2	.6645563	.1929549	7.049687	6.220143	148.8357	.1624118
#3	.6585503	.1929948	7.054403	6.188589	147.8878	.1617020

Elem	Sr4077
Units	ppm
Avg	1.754188
Stddev	.012285
%RSD	.7003102
#1	1.750103
#2	1.744467
#3	1.767995

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2335.249	55065.84	12526.76	1662.338	3775.457
Stddev	2.821	413.67	38.26	17.489	4.208
%RSD	.1208036	.7512357	.3054553	1.052076	.1114587
#1	2338.486	55503.75	12550.94	1681.211	3779.094
#2	2333.949	55012.14	12546.70	1659.123	3776.429
#3	2333.313	54681.64	12482.65	1646.679	3770.848

Sample Name: P4722-15A Acquired: 11/14/2024 19:38:03 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.8249944	1.834646	.9194041	1.959432	.8052042	2.037155
Stddev	.0024344	.015481	.0015702	.010426	.0031998	.014702
%RSD	.2950870	.8438378	.1707796	.5320970	.3973844	.7216888
#1	.8225184	1.827609	.9177497	1.962869	.8074024	2.038606
#2	.8273850	1.823933	.9195888	1.947722	.8015333	2.021782
#3	.8250799	1.852396	.9208737	1.967706	.8066770	2.051078
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3424096	.1896683	.1845012	331.1626	.3911715	.1871137
Stddev	.0008569	.0012316	.0007668	.4664	.0015089	.0004083
%RSD	.2502714	.6493540	.4155913	.1408299	.3857499	.2181907
#1	.3416880	.1886088	.1838027	331.5956	.3911495	.1871015
#2	.3433568	.1893765	.1843792	330.6688	.3896736	.1867117
#3	.3421840	.1910196	.1853216	331.2232	.3926913	.1875280
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3083937	3.106397	.2321286	15.63619	.4727406	.0736536
Stddev	.0007156	.005121	.0008137	.08514	.0013158	.0004370
%RSD	.2320556	.1648402	.3505262	.5445224	.2783252	.5932576
#1	.3083476	3.111486	.2327842	15.66835	.4727973	.0736761
#2	.3077022	3.106458	.2323837	15.70057	.4713975	.0740789
#3	.3091313	3.101246	.2312180	15.53965	.4740272	.0732059
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.04042	.2988611	.3121393	16.76771	.3431824	.4247917
Stddev	.16577	.0017884	.0008950	.07819	.0023072	.0009353
%RSD	.4039125	.5984175	.2867358	.4662966	.6722845	.2201720
#1	40.98500	.3005275	.3131447	16.74793	.3405681	.4252294
#2	41.22679	.2990843	.3114294	16.85389	.3440457	.4237178
#3	40.90945	.2969716	.3118439	16.70131	.3449335	.4254278

Sample Name: P4722-15A Acquired: 11/14/2024 19:38:03 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6532969	.1891511	7.113175	6.107990	F 147.1563	.1600384
Stddev	.0008916	.0009709	.027783	.033342	.7304	.0004232
%RSD	.1364767	.5132808	.3905897	.5458735	.4963681	.2644095
#1	.6525092	.1885964	7.135751	6.084175	146.7348	.1595530
#2	.6531167	.1902721	7.121628	6.093700	146.7345	.1602326
#3	.6542648	.1885847	7.082147	6.146095	147.9998	.1603295

Elem	Sr4077
Units	ppm
Avg	1.737836
Stddev	.008644
%RSD	.4973926
#1	1.742725
#2	1.742928
#3	1.727855

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2317.166	54640.65	12549.31	1615.124	3772.688
Stddev	8.243	200.76	30.73	13.719	8.696
%RSD	.3557299	.3674227	.2448579	.8493853	.2304994
#1	2310.882	54592.11	12559.02	1605.755	3767.977
#2	2326.499	54468.61	12514.90	1608.746	3782.723
#3	2314.118	54861.24	12574.01	1630.870	3767.364

Sample Name: P4799-03 Acquired: 11/14/2024 19:42:18 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.006158	-.010215	-.000391	.0047725	.0013452	.1091433
Stddev	.001776	.002342	.000827	.0019488	.0004285	.0051376
%RSD	28.84071	22.92703	211.6937	40.83286	31.85314	4.707247
#1	-.004178	-.012918	.000354	.0055121	.0008741	.1080733
#2	-.007609	-.008772	-.001281	.0062432	.0014498	.1046249
#3	-.006687	-.008957	-.000245	.0025622	.0017117	.1147316
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0380881	-.000119	-.000210	181.0051	.0038178	.0002922
Stddev	.0002833	.000017	.000051	1.1817	.0002806	.0000613
%RSD	.7437599	14.55774	24.38890	.6528619	7.349079	20.98516
#1	.0377767	-.000128	-.000196	179.7244	.0036917	.0002267
#2	.0383305	-.000099	-.000167	182.0533	.0036224	.0003482
#3	.0381571	-.000130	-.000267	181.2375	.0041393	.0003017
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0073408	.0801421	.0062301	.5609730	.0056549	-.000439
Stddev	.0004350	.0015611	.0000809	.0162986	.0000874	.000299
%RSD	5.925705	1.947870	1.299128	2.905419	1.545523	68.21090
#1	.0070292	.0812249	.0062733	.5524740	.0057457	-.000706
#2	.0078377	.0783527	.0062804	.5797645	.0056475	-.000494
#3	.0071554	.0808487	.0061368	.5506805	.0055714	-.000116
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	462.1472	.0166575	.0050069	4.266517	.0297574	.0044194
Stddev	3.3413	.0004459	.0005281	.023422	.0003170	.0001293
%RSD	.7230026	2.676892	10.54703	.5489697	1.065421	2.924896
#1	466.0051	.0171705	.0055802	4.291474	.0301080	.0043699
#2	460.2664	.0163633	.0045403	4.245014	.0296731	.0045661
#3	460.1702	.0164386	.0049003	4.263064	.0294910	.0043223

Sample Name: P4799-03 Acquired: 11/14/2024 19:42:18 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.005130	-.000942	2.461661	.0095212	F 11.88309	-.025068
Stddev	.000838	.000354	.014952	.0009145	.07204	.000236
%RSD	16.33026	37.59788	.6074092	9.604615	.6062065	.9412759
#1	-.005193	-.001278	2.477381	.0092599	11.96512	-.025236
#2	-.004263	-.000975	2.459982	.0105378	11.83016	-.024798
#3	-.005935	-.000572	2.447618	.0087657	11.85397	-.025169

Elem	Sr4077
Units	ppm
Avg	.7383555
Stddev	.0057560
%RSD	.7795712
#1	.7317151
#2	.7414285
#3	.7419227

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2237.780	51859.37	12671.76	1540.879	3525.140
Stddev	9.797	390.04	51.29	17.251	14.519
%RSD	.4378146	.7521018	.4047429	1.119561	.4118686
#1	2228.168	51409.14	12728.94	1522.511	3508.820
#2	2237.418	52094.46	12629.82	1543.386	3529.976
#3	2247.753	52074.51	12656.52	1556.739	3536.623

Sample Name: P4799-03DUP Acquired: 11/14/2024 19:46:43 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.007595	-.009357	-.000734	.0040789	.0023141	.1077311
Stddev	.001736	.002130	.001391	.0011069	.0028044	.0102857
%RSD	22.85944	22.75865	189.4760	27.13767	121.1873	9.547555
#1	-.006582	-.011307	-.000467	.0051288	.0048293	.0983455
#2	-.009599	-.009681	.000504	.0041852	-.000710	.1061209
#3	-.006603	-.007084	-.002239	.0029227	.002823	.1187269
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0380529	-.000132	-.000166	181.5010	.0036282	.0002325
Stddev	.0006350	.000033	.000064	1.5684	.0004707	.0002886
%RSD	1.668630	25.04574	38.76068	.8641367	12.97434	124.1494
#1	.0373757	-.000170	-.000109	179.8947	.0040288	.0001167
#2	.0386348	-.000117	-.000153	181.5798	.0031097	.0000198
#3	.0381482	-.000110	-.000236	183.0285	.0037461	.0005610
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0074543	.0789895	.0058724	.5570359	.0054659	-.000531
Stddev	.0001097	.0024016	.0001165	.0030545	.0003972	.000231
%RSD	1.471092	3.040387	1.984054	.5483548	7.267314	43.42789
#1	.0075803	.0792428	.0060060	.5557330	.0057935	-.000774
#2	.0073805	.0764713	.0057917	.5605259	.0050241	-.000315
#3	.0074020	.0812543	.0058196	.5548490	.0055800	-.000505
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	464.3428	.0170244	.0047198	4.265788	.0293464	.0043682
Stddev	3.5959	.0011217	.0002523	.023204	.0004898	.0003534
%RSD	.7743996	6.588564	5.344656	.5439637	1.669124	8.090805
#1	460.6460	.0159233	.0050030	4.240112	.0290522	.0039609
#2	464.5538	.0169843	.0046369	4.285260	.0290752	.0045938
#3	467.8285	.0181656	.0045194	4.271990	.0299119	.0045498

Sample Name: P4799-03DUP Acquired: 11/14/2024 19:46:43 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.005119	.0007170	2.452982	.0118168	F 11.76650	-.025046
Stddev	.000488	.0023726	.010500	.0033341	.02694	.000300
%RSD	9.536200	330.9154	.4280474	28.21479	.2289245	1.196550
#1	-.005578	.0034385	2.443668	.0091605	11.79673	-.025309
#2	-.004607	-.000916	2.464361	.0107316	11.75772	-.024719
#3	-.005174	-.000371	2.450919	.0155583	11.74504	-.025109

Elem	Sr4077
Units	ppm
Avg	.7450060
Stddev	.0043027
%RSD	.5775342
#1	.7411210
#2	.7442665
#3	.7496305

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2236.227	52087.93	12629.75	1533.038	3525.876
Stddev	9.876	107.13	67.16	3.968	13.008
%RSD	.4416364	.2056627	.5317887	.2588177	.3689346
#1	2225.965	52122.75	12670.03	1533.215	3511.273
#2	2237.049	52173.32	12667.00	1536.914	3530.133
#3	2245.666	51967.73	12552.21	1528.984	3536.223

Sample Name: P4799-03LX5 Acquired: 11/14/2024 19:51:08 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.001464	-.002385	-.000508	.0014434	.0009177	.0131789	.0075290
Stddev	.002499	.000888	.000121	.0005761	.0013896	.0025898	.0003568
%RSD	170.7176	37.24322	23.80071	39.90864	151.4185	19.65116	4.739376
#1	.000723	-.001534	-.000605	.0009947	.0018540	.0151585	.0071855
#2	-.000927	-.002314	-.000373	.0012426	.0015782	.0141303	.0078978
#3	-.004188	-.003307	-.000545	.0020930	-.000679	.0102480	.0075037
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000017	-.000027	36.91291	.0005416	.0000746	.0014022	.0152667
Stddev	.000021	.000071	.29084	.0003864	.0000787	.0002156	.0019786
%RSD	119.4160	268.6298	.7878966	71.35590	105.5823	15.37637	12.96028
#1	-.000041	-.000097	37.03200	.0003226	.0000833	.0012230	.0175512
#2	-.000007	-.000028	37.12530	.0009878	.0001486	.0013421	.0141000
#3	-.000003	.000046	36.58143	.0003144	-.000008	.0016415	.0141488
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014819	.1244208	.0013015	-.000297	84.67419	.0031790	.0013236
Stddev	.0002766	.0099077	.0001700	.000292	.73637	.0015323	.0002142
%RSD	18.66261	7.963035	13.05751	98.48702	.8696478	48.19861	16.18276
#1	.0017134	.1322119	.0011362	.000040	84.30202	.0019815	.0012687
#2	.0011757	.1132702	.0014758	-.000487	85.52235	.0049057	.0015599
#3	.0015567	.1277804	.0012925	-.000443	84.19818	.0026498	.0011422
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7689472	.0058998	.0007968	.0006760	-.000175	.4563639	.0015590
Stddev	.0103784	.0003538	.0001654	.0002787	.000296	.0030752	.0031878
%RSD	1.349692	5.996276	20.75855	41.23508	169.7073	.6738439	204.4789
#1	.7647070	.0062837	.0009610	.0008437	-.000474	.4543751	.0037472
#2	.7613603	.0058288	.0006302	.0008300	-.000169	.4548107	.0030282
#3	.7807744	.0055869	.0007991	.0003542	.000119	.4599059	-.002098

Sample Name: P4799-03LX5 Acquired: 11/14/2024 19:51:08 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	2.283748	-.004947	.1475499
Stddev	.008045	.000119	.0014540
%RSD	.3522819	2.400525	.9854461

#1	2.290694	-.004866	.1479725
#2	2.285617	-.005083	.1487458
#3	2.274932	-.004891	.1459314

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2600.650	57563.33	12993.55	1789.841	4187.066
Stddev	17.118	165.95	111.52	9.013	20.787
%RSD	.6582305	.2882865	.8582578	.5035818	.4964589

#1	2583.937	57532.37	12897.26	1785.191	4164.412
#2	2599.867	57415.04	12967.67	1784.103	4191.521
#3	2618.147	57742.58	13115.74	1800.230	4205.264

Sample Name: CCV07 Acquired: 11/14/2024 19:55:27 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.842609	4.991929	4.851436	4.848830	4.850332	9.685220	9.804213
Stddev	.012686	.017836	.003889	.004076	.002833	.016600	.088161
%RSD	.2619655	.3572965	.0801576	.0840595	.0584144	.1713988	.8992181
#1	4.847463	5.012381	4.855775	4.853323	4.848681	9.676176	9.706080
#2	4.852151	4.983805	4.850265	4.845370	4.853603	9.675105	9.829833
#3	4.828212	4.979601	4.848266	4.847797	4.848711	9.704378	9.876727
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2473759	2.418741	24.28188	.9804254	2.415295	1.226817	4.816873
Stddev	.0006305	.000852	.04787	.0039526	.003078	.001209	.017088
%RSD	.2548891	.0352313	.1971558	.4031514	.1274535	.0985756	.3547611
#1	.2466519	2.419716	24.28983	.9758616	2.418367	1.225499	4.797334
#2	.2478045	2.418141	24.23053	.9827498	2.415307	1.227875	4.824260
#3	.2476712	2.418366	24.32529	.9826648	2.412211	1.227079	4.829025
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.418625	23.81907	2.423098	1.218031	25.25929	2.429444	2.454253
Stddev	.003846	.10900	.001019	.003266	.06372	.006125	.005990
%RSD	.1590045	.4576254	.0420587	.2681572	.2522513	.2521128	.2440517
#1	2.414250	23.84402	2.424252	1.214267	25.19403	2.430345	2.451720
#2	2.421470	23.69976	2.422322	1.219712	25.32135	2.422918	2.449946
#3	2.420156	23.91344	2.422719	1.220115	25.26248	2.435068	2.461093
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.01757	4.911648	4.901657	4.851784	4.813784	4.769680	5.024501
Stddev	.08810	.007564	.002116	.002925	.003507	.037746	.005965
%RSD	.3668034	.1539995	.0431775	.0602786	.0728498	.7913747	.1187173
#1	23.91787	4.902975	4.902481	4.850292	4.810148	4.732483	5.031375
#2	24.04993	4.915097	4.903238	4.855154	4.817145	4.768605	5.020685
#3	24.08491	4.916873	4.899252	4.849906	4.814061	4.807952	5.021444

Sample Name: CCV07 Acquired: 11/14/2024 19:55:27 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.737101	4.815410	4.863493
Stddev	.013601	.004354	.097884
%RSD	.2871100	.0904106	2.012634
#1	4.751043	4.810597	4.777805
#2	4.736392	4.819074	4.842504
#3	4.723869	4.816559	4.970169

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2571.639	58680.03	12977.33	1823.035	4072.579
Stddev	4.078	87.29	24.33	13.323	7.945
%RSD	.1585596	.1487511	.1875057	.7308011	.1950926
#1	2568.393	58690.16	12951.88	1810.369	4063.555
#2	2570.308	58761.81	13000.37	1836.929	4075.654
#3	2576.215	58588.12	12979.72	1821.806	4078.527

Sample Name: CCB07 Acquired: 11/14/2024 19:59:39 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000641	-.000787	.0004233	.0005873	-.000695	-.003602	-.001000
Stddev	.001469	.000829	.0010439	.0001778	.001147	.001958	.000272
%RSD	229.3200	105.2582	246.5817	30.26735	164.9122	54.35050	27.17605
#1	-.000958	.000128	-.000382	.0005014	.000068	-.004376	-.000730
#2	.000961	-.001486	.001603	.0007917	-.002014	-.001376	-.001273
#3	-.001926	-.001004	.000050	.0004688	-.000140	-.005054	-.000997
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000150	.0000111	.0143400	.0001942	.0000535	-.000167	.0008503
Stddev	.0000154	.0000696	.0055489	.0001375	.0000837	.000061	.0038637
%RSD	103.1093	625.0327	38.69513	70.82693	156.4611	36.43786	454.3643
#1	.0000265	-.000030	.0207448	.0002829	.0000709	-.000236	.0047644
#2	-.000003	-.000028	.0112940	.0002639	-.000038	-.000120	-.002961
#3	.000021	.000092	.0109813	.0000358	.000127	-.000146	.000747
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000020	.0040200	.0002453	-.000073	-.190181	-.000147	.0009064
Stddev	.0001178	.0038054	.0000608	.000045	.007696	.000638	.0002063
%RSD	5854.001	94.66111	24.78407	62.51987	4.046550	432.8241	22.75621
#1	.0001076	.0007816	.0001878	-.000099	-.196765	-.000717	.0011016
#2	-.000125	.0082113	.0003089	-.000098	-.192058	.000542	.0006906
#3	.000024	.0030671	.0002391	-.000020	-.181720	-.000267	.0009271
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.024597	.0036493	.0001286	.0027023	-.000141	.0048912	-.000476
Stddev	.006028	.0001025	.0000579	.0006779	.000255	.0026409	.002752
%RSD	24.50664	2.809690	45.00596	25.08550	181.5079	53.99244	577.7687
#1	-.030856	.0036119	.0001466	.0021314	.000153	.0050178	.001991
#2	-.024105	.0035707	.0001753	.0034515	-.000269	.0021892	-.003444
#3	-.018831	.0037653	.0000638	.0025239	-.000307	.0074664	.000024

Sample Name: CCB07 Acquired: 11/14/2024 19:59:39 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0046865	-.000104	.0000734
Stddev	.0015141	.000525	.0001248
%RSD	32.30750	503.1174	169.9424

#1	.0045192	.000467	.0002168
#2	.0062773	-.000214	.0000146
#3	.0032630	-.000566	-.000011

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2704.313	61504.49	13169.12	1874.375	4689.217
Stddev	5.228	193.67	18.45	6.117	5.938
%RSD	.1933279	.3148920	.1401100	.3263332	.1266246

#1	2700.849	61427.82	13148.75	1870.371	4682.679
#2	2710.326	61360.88	13173.89	1871.338	4694.274
#3	2701.762	61724.76	13184.71	1881.416	4690.699

Sample Name: P4799-03MS Acquired: 11/14/2024 20:03:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.8184497	1.709048	.8857886	1.972310	.7865521	2.046060
Stddev	.0068881	.010457	.0069516	.011635	.0039374	.007795
%RSD	.8416065	.6118613	.7847973	.5899310	.5005936	.3809952
#1	.8134510	1.697709	.8794647	1.960792	.7847110	2.051297
#2	.8263069	1.711122	.8932321	1.984059	.7910728	2.037101
#3	.8155912	1.718312	.8846689	1.972079	.7838724	2.049781
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2251506	.1868320	.1856048	179.6097	.3890926	.1878669
Stddev	.0012588	.0014902	.0011301	1.0180	.0060734	.0014046
%RSD	.5590954	.7975891	.6088961	.5667852	1.560925	.7476516
#1	.2265299	.1877760	.1846597	180.4887	.3917430	.1869933
#2	.2248582	.1876059	.1868566	179.8460	.3933904	.1894871
#3	.2240637	.1851141	.1852980	178.4943	.3821444	.1871203
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2862054	2.993722	.1883412	2.323604	.4701666	.0702433
Stddev	.0017308	.042424	.0006562	.008574	.0033740	.0005421
%RSD	.6047328	1.417112	.3484231	.3690139	.7176180	.7718010
#1	.2851280	3.019921	.1890002	2.332527	.4671701	.0707118
#2	.2882018	3.016470	.1876877	2.322859	.4738211	.0703687
#3	.2852863	2.944775	.1883356	2.315426	.4695085	.0696495
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	444.3215	.3048954	.2146455	14.61951	.2778842	.4075945
Stddev	8.5150	.0011702	.0012846	.13545	.0016975	.0026497
%RSD	1.916401	.3837996	.5984760	.9265237	.6108583	.6500826
#1	450.8595	.3056488	.2155127	14.72505	.2792181	.4056444
#2	447.4121	.3054901	.2152541	14.66671	.2784611	.4106113
#3	434.6928	.3035472	.2131697	14.46677	.2759735	.4065278

Sample Name: P4799-03MS Acquired: 11/14/2024 20:03:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6424867	.1875316	3.148664	6.184158	F 11.58074	.1776799
Stddev	.0035680	.0017672	.027202	.043614	.05109	.0003737
%RSD	.5553372	.9423713	.8639327	.7052518	.4411565	.2102980
#1	.6401456	.1873272	3.159738	6.154023	11.53148	.1780445
#2	.6465932	.1893922	3.168582	6.234170	11.63348	.1776975
#3	.6407214	.1858755	3.117671	6.164282	11.57726	.1772978

Elem	Sr4077
Units	ppm
Avg	.9232223
Stddev	.0048652
%RSD	.5269795
#1	.9256726
#2	.9263753
#3	.9176192

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2251.773	52356.86	12522.87	1544.504	3550.927
Stddev	15.505	453.07	55.76	6.948	22.158
%RSD	.6885721	.8653410	.4452945	.4498422	.6240086
#1	2262.196	52069.03	12464.52	1537.183	3568.223
#2	2233.955	52122.46	12528.45	1545.323	3525.951
#3	2259.169	52879.11	12575.63	1551.006	3558.608

Sample Name: P4799-03MSD Acquired: 11/14/2024 20:08:15 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.8386979	1.751464	.9018822	2.019354	.8057197	2.097881
Stddev	.0013315	.015451	.0047766	.003919	.0004901	.008096
%RSD	.1587619	.8822004	.5296299	.1940477	.0608335	.3859331
#1	.8399402	1.735595	.8972001	2.023657	.8060515	2.106656
#2	.8388613	1.766461	.9016983	2.015992	.8059510	2.090701
#3	.8372922	1.752335	.9067481	2.018413	.8051567	2.096286
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2326287	.1922897	.1887323	183.2257	.3954114	.1914526
Stddev	.0002846	.0004569	.0001286	.4938	.0014772	.0002595
%RSD	.1223572	.2376143	.0681598	.2695189	.3735949	.1355711
#1	.2324833	.1919767	.1887264	183.3806	.3946732	.1913877
#2	.2329566	.1928140	.1886067	182.6729	.3971122	.1912317
#3	.2324460	.1920783	.1888638	183.6234	.3944487	.1917385
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2910619	3.072305	.1941273	2.401148	.4792094	.0713208
Stddev	.0003253	.012124	.0004037	.029682	.0006813	.0002986
%RSD	.1117472	.3946108	.2079703	1.236152	.1421707	.4187214
#1	.2909275	3.063800	.1939992	2.408521	.4784234	.0715842
#2	.2914328	3.086187	.1938031	2.368474	.4796296	.0713818
#3	.2908253	3.066928	.1945795	2.426447	.4795753	.0709964
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	450.5021	.3154064	.2190486	14.99706	.2849836	.4174659
Stddev	6.4164	.0011050	.0014169	.08396	.0003004	.0002446
%RSD	1.424266	.3503350	.6468503	.5598646	.1053962	.0585947
#1	457.2467	.3141720	.2205274	14.99585	.2847453	.4173535
#2	449.7853	.3163032	.2189155	15.08162	.2848845	.4172978
#3	444.4743	.3157441	.2177029	14.91371	.2853210	.4177465

Sample Name: P4799-03MSD Acquired: 11/14/2024 20:08:15 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6544104	.1931168	3.201638	6.273062	F 11.61958	.1836759
Stddev	.0006496	.0011461	.018179	.007189	.02192	.0007783
%RSD	.0992627	.5934505	.5678013	.1146068	.1886148	.4237338
#1	.6538456	.1925858	3.214897	6.281342	11.61990	.1837379
#2	.6551202	.1923325	3.209103	6.269441	11.59750	.1844214
#3	.6542652	.1944320	3.180915	6.268403	11.64133	.1828685

Elem	Sr4077
Units	ppm
Avg	.9427507
Stddev	.0027045
%RSD	.2868701
#1	.9433420
#2	.9397995
#3	.9451106

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2231.422	51876.79	12321.63	1537.554	3525.684
Stddev	3.113	190.85	31.36	15.736	4.972
%RSD	.1394998	.3678995	.2545105	1.023432	.1410248
#1	2227.909	51721.51	12288.43	1520.094	3524.737
#2	2233.837	51819.01	12350.75	1541.931	3531.062
#3	2232.520	52089.86	12325.70	1550.639	3521.254

Sample Name: P4799-03A Acquired: 11/14/2024 20:12:31 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.8289116	1.739457	.9055424	1.996037	.7974004	2.072603
Stddev	.0079571	.051560	.0034148	.012664	.0056656	.033739
%RSD	.9599404	2.964127	.3771032	.6344368	.7105098	1.627854
#1	.8358991	1.717340	.9079364	2.002015	.8013266	2.102042
#2	.8202510	1.702646	.9016320	1.981491	.7909054	2.079982
#3	.8305845	1.798386	.9070588	2.004605	.7999692	2.035786
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2327470	.1924335	.1893330	182.5303	.3951815	.1921884
Stddev	.0033616	.0021598	.0010380	1.9496	.0019198	.0013594
%RSD	1.444325	1.122356	.5482592	1.068081	.4858009	.7073277
#1	.2359553	.1944940	.1899615	184.3745	.3946582	.1932474
#2	.2330351	.1926199	.1881349	182.7262	.3935777	.1906555
#3	.2292506	.1901865	.1899027	180.4901	.3973087	.1926622
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2900260	3.060995	.1951061	2.367770	.4813499	.0712946
Stddev	.0020485	.018480	.0028936	.030931	.0026659	.0005202
%RSD	.7063179	.6037297	1.483093	1.306321	.5538412	.7296025
#1	.2915559	3.042798	.1978856	2.390623	.4831922	.0716313
#2	.2876987	3.060441	.1953221	2.380115	.4782929	.0706955
#3	.2908232	3.079745	.1921105	2.332574	.4825644	.0715570
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	454.9901	.3112623	.2183064	14.71869	.2870185	.4155749
Stddev	5.0759	.0032458	.0005660	.05436	.0036463	.0034373
%RSD	1.115616	1.042783	.2592482	.3693034	1.270404	.8271245
#1	452.6200	.3150059	.2189243	14.75988	.2900341	.4181666
#2	451.5327	.3095459	.2178132	14.65708	.2880554	.4116757
#3	460.8175	.3092351	.2181816	14.73911	.2829661	.4168824

Sample Name: P4799-03A Acquired: 11/14/2024 20:12:31 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.6576142	.1930336	3.133851	6.262929	F 11.62090	.1814303
Stddev	.0030828	.0042345	.009254	.056362	.08347	.0039808
%RSD	.4687879	2.193649	.2952786	.8999328	.7183108	2.194111
#1	.6574999	.1978538	3.144083	6.280734	11.63214	.1848874
#2	.6545901	.1913344	3.131401	6.199815	11.53238	.1823255
#3	.6607525	.1899127	3.126069	6.308239	11.69819	.1770782

Elem	Sr4077
Units	ppm
Avg	.9322561
Stddev	.0077984
%RSD	.8365099
#1	.9410886
#2	.9263212
#3	.9293588

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2273.871	52588.24	12391.64	1578.316	3566.369
Stddev	17.896	252.75	155.06	13.292	18.682
%RSD	.7870439	.4806226	1.251340	.8421572	.5238319
#1	2257.532	52641.04	12228.89	1568.425	3546.819
#2	2292.997	52810.42	12408.38	1593.425	3584.040
#3	2271.085	52313.26	12537.65	1573.097	3568.247

Sample Name: P4799-07 Acquired: 11/14/2024 20:16:46 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.007519	-.007631	.0000744	.0039397	.0010159	.7743384
Stddev	.000914	.002491	.0002204	.0019226	.0016584	.0034783
%RSD	12.15516	32.63764	296.2037	48.79970	163.2429	.4491950
#1	-.008210	-.005554	.0003204	.0038544	.0015351	.7703329
#2	-.007866	-.006946	-.000105	.0020613	.0023526	.7760851
#3	-.006483	-.010392	.000008	.0059036	-.000840	.7765971
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0573881	-.000130	-.000198	185.1633	.0050528	-.000136
Stddev	.0002698	.000017	.000069	.4437	.0000835	.000189
%RSD	.4701007	12.78413	35.10353	.2396300	1.653388	138.7714
#1	.0572607	-.000130	-.000192	185.6580	.0051135	-.000343
#2	.0572056	-.000146	-.000269	184.8006	.0050874	-.000096
#3	.0576980	-.000113	-.000131	185.0312	.0049575	.000029
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0080121	.1373915	.0138771	.1082430	.0048811	-.000384
Stddev	.0003623	.0013049	.0002523	.0092192	.0001080	.000166
%RSD	4.521420	.9497324	1.818142	8.517168	2.212030	43.07323
#1	.0084137	.1368589	.0137888	.1027291	.0048462	-.000502
#2	.0077098	.1388784	.0141617	.1188861	.0047949	-.000456
#3	.0079128	.1364371	.0136809	.1031138	.0050022	-.000195
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	436.0725	.0069419	.0062199	4.612586	.0240244	.0038370
Stddev	3.2867	.0006284	.0001738	.040293	.0003709	.0002310
%RSD	.7536980	9.052563	2.794641	.8735506	1.544021	6.019404
#1	438.9224	.0068442	.0060782	4.612223	.0244487	.0039237
#2	436.8181	.0063681	.0061678	4.653059	.0238632	.0035753
#3	432.4771	.0076135	.0064139	4.572475	.0237613	.0040122

Sample Name: P4799-07 Acquired: 11/14/2024 20:16:46 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.005933	.0003786	1.306918	.0065001	F 10.48566	-.026016
Stddev	.000833	.0004790	.008263	.0014841	.04388	.000321
%RSD	14.04350	126.4985	.6322769	22.83148	.4184312	1.233532
#1	-.006783	.0007493	1.313568	.0053897	10.50495	-.026274
#2	-.005898	-.000162	1.309519	.0081857	10.43545	-.026117
#3	-.005117	.000549	1.297667	.0059250	10.51659	-.025656

Elem	Sr4077
Units	ppm
Avg	.8974808
Stddev	.0118184
%RSD	1.316840
#1	.9102556
#2	.8952502
#3	.8869367

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2317.910	53845.53	12554.28	1657.812	3620.297
Stddev	2.624	383.69	70.32	10.892	3.178
%RSD	.1132163	.7125683	.5600926	.6570192	.0877691
#1	2315.995	53573.30	12480.95	1645.617	3616.639
#2	2320.901	53678.93	12560.78	1661.246	3622.369
#3	2316.834	54284.35	12621.13	1666.574	3621.884

Sample Name: P4799-11 Acquired: 11/14/2024 20:21:20 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.006796	-.008791	.0000977	.0028497	-.000137	.0681404
Stddev	.000744	.002088	.0010821	.0036065	.000632	.0038429
%RSD	10.95396	23.75621	1108.146	126.5560	460.3841	5.639690
#1	-.006045	-.010685	-.000586	.0070051	.000436	.0667894
#2	-.007534	-.006551	.001345	.0010108	-.000816	.0724763
#3	-.006809	-.009136	-.000467	.0005334	-.000032	.0651553
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0521727	-.000131	-.000183	175.2820	.0020967	-.000523
Stddev	.0004562	.000019	.000059	.4795	.0003243	.000120
%RSD	.8744697	14.76977	32.43513	.2735626	15.46777	22.94788
#1	.0525461	-.000144	-.000120	175.0158	.0023148	-.000578
#2	.0523078	-.000141	-.000238	175.8356	.0017240	-.000606
#3	.0516641	-.000109	-.000189	174.9948	.0022513	-.000385
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010970	.0703241	.0078567	.1669425	.0013948	-.000513
Stddev	.0005050	.0014668	.0001935	.0115372	.0004264	.000161
%RSD	46.03233	2.085733	2.463369	6.910856	30.57294	31.33743
#1	.0009731	.0695978	.0080447	.1681452	.0010070	-.000434
#2	.0016525	.0693622	.0078675	.1548511	.0013259	-.000408
#3	.0006656	.0720123	.0076580	.1778312	.0018515	-.000699
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	424.2339	.0087918	.0513293	3.734381	.0233987	.0025534
Stddev	5.9490	.0019787	.0007024	.026607	.0004702	.0001898
%RSD	1.402296	22.50632	1.368340	.7124785	2.009684	7.434295
#1	430.4385	.0079815	.0520687	3.730035	.0234769	.0023569
#2	423.6846	.0073469	.0512484	3.762894	.0228943	.0025676
#3	418.5786	.0110470	.0506709	3.710215	.0238250	.0027358

Sample Name: P4799-11 Acquired: 11/14/2024 20:21:20 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0501305	-.004262	2.546998	.0035570	F 13.99366	-.024198
Stddev	.0003286	.000287	.017099	.0021396	.10355	.000819
%RSD	.6555775	6.742876	.6713485	60.15158	.7399524	3.386523
#1	.0501268	-.004503	2.557355	.0030728	13.89800	-.023769
#2	.0504611	-.003944	2.556377	.0017010	13.97937	-.025143
#3	.0498038	-.004339	2.527261	.0058972	14.10361	-.023683

Elem	Sr4077
Units	ppm
Avg	.7118543
Stddev	.0024836
%RSD	.3488845
#1	.7124619
#2	.7139777
#3	.7091233

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2298.648	53138.24	12611.40	1589.671	3632.087
Stddev	13.161	257.76	12.84	8.579	27.141
%RSD	.5725652	.4850707	.1018236	.5396462	.7472692
#1	2311.471	52861.33	12600.16	1580.120	3657.106
#2	2299.301	53182.22	12608.64	1592.170	3635.924
#3	2285.173	53371.18	12625.40	1596.722	3603.231

Sample Name: P4799-15 Acquired: 11/14/2024 20:25:46 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.005796	-.006086	.0006192	.0026337	.0013816	.0028877	-.001234
Stddev	.000742	.001011	.0001632	.0009109	.0003141	.0032546	.000413
%RSD	12.79505	16.60871	26.34978	34.58474	22.73540	112.7057	33.49376

#1	-.005229	-.005839	.0005158	.0022360	.0014074	.0005442	-.001162
#2	-.005524	-.005221	.0005345	.0036758	.0016820	.0066037	-.000862
#3	-.006635	-.007197	.0008073	.0019894	.0010554	.0015151	-.001679

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000158	-.000181	.0065277	.0006091	-.000214	.0003660	.0159578
Stddev	.000022	.000051	.0072573	.0000993	.000014	.0002161	.0008651
%RSD	13.74698	28.24879	111.1756	16.29937	6.547914	59.03929	5.421073

#1	-.000160	-.000136	-.001722	.0006560	-.000223	.0002457	.0158036
#2	-.000179	-.000236	.009380	.0004950	-.000221	.0006155	.0151803
#3	-.000136	-.000170	.011925	.0006762	-.000198	.0002369	.0168897

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0134088	.0062395	.0004639	-.000056	-.461415	.0003065	.0020759
Stddev	.0002458	.0049876	.0001981	.000188	.005338	.0005506	.0000598
%RSD	1.833398	79.93573	42.70698	334.9092	1.156920	179.6496	2.881079

#1	.0131256	.0109625	.0002443	.000141	-.467540	.0008737	.0020635
#2	.0135665	.0067323	.0005183	-.000233	-.457759	-.000226	.0021409
#3	.0135345	.0010238	.0006292	-.000077	-.458945	.000272	.0020232

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.031344	-.000846	.0003680	-.003098	-.000052	.0163631	.0058505
Stddev	.008663	.000467	.0003257	.000146	.000272	.0042316	.0012230
%RSD	27.63765	55.25948	88.51293	4.722747	525.4161	25.86072	20.90457

#1	-.031906	-.001377	.0001444	-.002939	-.000101	.0199783	.0053039
#2	-.039712	-.000664	.0002179	-.003227	-.000296	.0174021	.0072515
#3	-.022414	-.000497	.0007417	-.003127	.000241	.0117087	.0049962

Sample Name: P4799-15 Acquired: 11/14/2024 20:25:46 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0425797	-.001423	-.000047
Stddev	.0043652	.000576	.000021
%RSD	10.25176	40.47489	43.80871

#1	.0453628	-.001895	-.000059
#2	.0375487	-.001593	-.000023
#3	.0448275	-.000781	-.000060

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2667.099	61960.20	13571.92	1822.318	4734.896
Stddev	9.296	57.38	80.12	11.257	16.660
%RSD	.3485369	.0926148	.5903048	.6177425	.3518611

#1	2663.807	61952.19	13649.84	1819.637	4728.820
#2	2677.593	61907.24	13489.78	1812.642	4753.742
#3	2659.898	62021.17	13576.15	1834.673	4722.127

Sample Name: P4799-19 Acquired: 11/14/2024 20:30:08 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.004932	-.007110	-.000792	.0020121	.0010918	-.020925
Stddev	.001091	.001557	.000476	.0022627	.0009390	.003282
%RSD	22.11900	21.90491	60.02030	112.4519	86.01181	15.68512
#1	-.004828	-.008907	-.000363	.0020041	.0020265	-.017163
#2	-.006071	-.006147	-.000711	.0042787	.0001485	-.022407
#3	-.003896	-.006276	-.001303	-.000247	.0011002	-.023204
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0565316	-.000152	-.000148	225.0764	.0041909	-.000513
Stddev	.0002838	.000035	.000014	1.6029	.0001442	.000109
%RSD	.5020529	23.30903	9.652330	.7121368	3.441028	21.33235
#1	.0562047	-.000111	-.000136	223.2278	.0041922	-.000388
#2	.0566751	-.000173	-.000164	225.9218	.0040461	-.000592
#3	.0567150	-.000172	-.000145	226.0795	.0043345	-.000559
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011651	.0139085	.0009893	.2927659	.0012848	-.000219
Stddev	.0003426	.0041593	.0001855	.0054672	.0001894	.000104
%RSD	29.40148	29.90486	18.75426	1.867445	14.74278	47.69070
#1	.0011185	.0149135	.0009552	.2906469	.0014203	-.000216
#2	.0015286	.0093387	.0008232	.2989755	.0010684	-.000324
#3	.0008483	.0174732	.0011895	.2886754	.0013659	-.000116
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	569.2125	.0165659	.0027729	4.904273	.0283556	.0036107
Stddev	5.9639	.0006376	.0002099	.028045	.0002097	.0003747
%RSD	1.047740	3.848784	7.568813	.5718397	.7395725	10.37601
#1	565.0252	.0166091	.0026890	4.929901	.0282320	.0035402
#2	566.5714	.0159079	.0026180	4.874315	.0282371	.0040156
#3	576.0409	.0171809	.0030117	4.908604	.0285978	.0032763

Sample Name: P4799-19 Acquired: 11/14/2024 20:30:08 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.006673	-.004817	6.081831	.0074950	F 15.64285	-.032506
Stddev	.000344	.000286	.027526	.0016713	.04131	.000579
%RSD	5.157261	5.933579	.4525985	22.29905	.2641123	1.779900
#1	-.007019	-.004652	6.055953	.0084713	15.62494	-.031838
#2	-.006669	-.005148	6.078786	.0084486	15.61352	-.032867
#3	-.006331	-.004653	6.110753	.0055652	15.69010	-.032811

Elem	Sr4077
Units	ppm
Avg	.9070958
Stddev	.0055774
%RSD	.6148620
#1	.9006881
#2	.9108600
#3	.9097392

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2199.462	50407.59	12553.07	1501.438	3452.525
Stddev	2.803	86.76	72.39	3.551	7.039
%RSD	.1274271	.1721138	.5766425	.2365235	.2038825
#1	2197.463	50461.64	12636.63	1503.147	3447.254
#2	2202.666	50453.60	12512.99	1503.812	3460.519
#3	2198.257	50307.51	12509.58	1497.355	3449.801

Sample Name: P4807-04 Acquired: 11/14/2024 20:34:41 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.005526	-.009339	.0004188	.0039247	.0004221	.0514938	.6052214
Stddev	.000715	.001230	.0006145	.0004084	.0012598	.0014425	.0024948
%RSD	12.93901	13.17442	146.7327	10.40484	298.4606	2.801415	.4122192
#1	-.006323	-.007919	.0000098	.0043926	.0016957	.0498530	.6078029
#2	-.005314	-.010020	.0011254	.0037416	.0003940	.0520654	.6028234
#3	-.004941	-.010079	.0001211	.0036399	-.000823	.0525629	.6050379
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000380	.0004610	15.32904	.0043954	.0040025	.0068052	4.669237
Stddev	.0000211	.0000921	.04753	.0003319	.0001716	.0001830	.024698
%RSD	55.39051	19.97868	.3100695	7.550693	4.287943	2.689121	.5289477
#1	.0000423	.0005421	15.27606	.0046180	.0039215	.0066115	4.650132
#2	.0000152	.0004800	15.34314	.0045542	.0041996	.0068289	4.697126
#3	.0000567	.0003609	15.36793	.0040139	.0038863	.0069752	4.660453
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.278445	1.427557	.0092695	.0002581	393.2200	-.000476	.0622809
Stddev	.009459	.015388	.0000893	.0000345	2.7804	.000805	.0005009
%RSD	.2210818	1.077927	.9636587	13.38460	.7070938	168.9598	.8043241
#1	4.269927	1.415005	.0091759	.0002227	394.8915	.000429	.0622266
#2	4.276784	1.422942	.0093539	.0002598	390.0103	-.000747	.0628068
#3	4.288624	1.444725	.0092789	.0002917	394.7581	-.001111	.0618093
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8324257	.0266350	-.000060	-.003619	.0009586	.5409563	.0150617
Stddev	.0144808	.0005818	.000212	.000028	.0003142	.0030024	.0013202
%RSD	1.739587	2.184297	353.6541	.7794710	32.77343	.5550205	8.765436
#1	.8340497	.0273058	.000056	-.003641	.0010266	.5421401	.0161338
#2	.8172014	.0263299	.000068	-.003629	.0006160	.5431863	.0154643
#3	.8460260	.0262692	-.000304	-.003587	.0012332	.5375424	.0135871

Sample Name: P4807-04 Acquired: 11/14/2024 20:34:41 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.2332456	-.003659	.0479998
Stddev	.0038959	.000547	.0001017
%RSD	1.670293	14.93898	.2119219
#1	.2324976	-.003168	.0481161
#2	.2374612	-.004248	.0479276
#3	.2297779	-.003562	.0479556

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2395.395	54781.26	13016.95	1655.485	3769.039
Stddev	14.907	313.52	16.34	6.786	16.150
%RSD	.6223032	.5723122	.1255337	.4099083	.4284953
#1	2382.408	54632.12	13017.87	1651.494	3756.535
#2	2392.105	54570.16	13000.17	1651.641	3763.310
#3	2411.672	55141.51	13032.82	1663.321	3787.273

Sample Name: P4807-08 Acquired: 11/14/2024 20:39:07 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.005340	-.009956	.0007637	.0029471	-.000175	-.056924	.8584177
Stddev	.002108	.000698	.0004959	.0004393	.000576	.007238	.0053209
%RSD	39.46645	7.008609	64.93589	14.90614	330.0760	12.71534	.6198556
#1	-.007673	-.010154	.0007254	.0026036	-.000149	-.065266	.8555311
#2	-.003573	-.009181	.0012778	.0027955	-.000763	-.052308	.8551639
#3	-.004775	-.010533	.0002881	.0034421	.000389	-.053198	.8645582
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000278	.0002793	171.9938	.0084025	.0012959	.0047737	.0880002
Stddev	.000044	.0000697	.3794	.0000924	.0001172	.0003949	.0011823
%RSD	15.76237	24.95831	.2205656	1.099477	9.045390	8.271796	1.343543
#1	-.000316	.0003401	171.8409	.0083602	.0012802	.0045357	.0867149
#2	-.000286	.0002032	171.7147	.0083389	.0011874	.0045559	.0890415
#3	-.000230	.0002945	172.4257	.0085085	.0014202	.0052295	.0882442
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.681081	3.356384	.0076220	-.000403	457.5118	.0003887	.0245321
Stddev	.012522	.007464	.0002465	.000182	4.3809	.0005334	.0001637
%RSD	.4670566	.2223739	3.234285	45.05298	.9575417	137.2404	.6674485
#1	2.677950	3.356688	.0078891	-.000450	461.2960	.0009989	.0244066
#2	2.670422	3.363692	.0075739	-.000203	452.7125	.0000110	.0244725
#3	2.694872	3.348773	.0074031	-.000557	458.5268	.0001562	.0247173
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9828399	.0108687	.0010784	-.004022	-.003959	.6041046	.0060094
Stddev	.0164056	.0001373	.0001144	.000863	.000525	.0052617	.0018309
%RSD	1.669201	1.263119	10.60698	21.46241	13.26116	.8709872	30.46656
#1	.9726669	.0110196	.0010660	-.003174	-.003418	.6032613	.0065560
#2	.9740871	.0107513	.0009707	-.003992	-.003995	.5993154	.0039675
#3	1.001766	.0108351	.0011985	-.004899	-.004466	.6097369	.0075046

Sample Name: P4807-08 Acquired: 11/14/2024 20:39:07 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.4315042	-.028526	.2506082
Stddev	.0018951	.000181	.0009851
%RSD	.4391888	.6335026	.3930968
#1	.4334020	-.028534	.2500844
#2	.4296118	-.028341	.2499956
#3	.4314988	-.028702	.2517446

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2318.941	53130.55	12580.42	1616.461	3575.249
Stddev	10.177	45.47	28.13	10.138	8.573
%RSD	.4388500	.0855840	.2235763	.6271970	.2397884
#1	2307.622	53131.40	12576.82	1619.542	3565.497
#2	2321.867	53084.66	12610.18	1605.139	3581.600
#3	2327.334	53175.59	12554.27	1624.701	3578.649

Sample Name: P4807-12 Acquired: 11/14/2024 20:43:33 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.008048	-.010622	.0006080	.0010168	.0007708	-.051761	1.223526
Stddev	.004509	.000781	.0005075	.0009064	.0004933	.000854	.012255
%RSD	56.03318	7.353112	83.46272	89.14025	63.99888	1.650089	1.001600

#1	-.011496	-.009771	.0011553	.0020632	.0002194	-.051767	1.233562
#2	-.002945	-.010787	.0001531	.0005079	.0009227	-.050903	1.227148
#3	-.009702	-.011307	.0005156	.0004792	.0011702	-.052612	1.209869

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000301	.0003646	180.8947	.0007424	.0007922	.0191856	.0178114
Stddev	.000037	.0000484	.9369	.0002974	.0001384	.0000125	.0004390
%RSD	12.24951	13.27752	.5179533	40.06419	17.46941	.0649874	2.464501

#1	-.000275	.0003746	181.3704	.0010073	.0006379	.0191740	.0180228
#2	-.000343	.0004072	181.4983	.0004206	.0008333	.0191988	.0173067
#3	-.000285	.0003119	179.8153	.0007993	.0009053	.0191839	.0181046

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.572875	3.421530	.0024122	-.000339	491.0406	.0001593	.0773863
Stddev	.023179	.031088	.0001416	.000194	6.3694	.0005925	.0005077
%RSD	.9009004	.9085878	5.871424	57.31683	1.297113	371.8604	.6560751

#1	2.586410	3.409790	.0024313	-.000339	484.0207	.0005246	.0768524
#2	2.586103	3.456778	.0022619	-.000534	496.4505	.0004776	.0778630
#3	2.546110	3.398022	.0025432	-.000145	492.6504	-.000524	.0774434

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.550480	.0366979	.0009289	-.004498	-.003592	.6936533	.0165055
Stddev	.018579	.0005071	.0001575	.000361	.000437	.0136549	.0030249
%RSD	1.198256	1.381757	16.96057	8.034500	12.17918	1.968543	18.32690

#1	1.529279	.0372472	.0011086	-.004103	-.003116	.6816645	.0130207
#2	1.563919	.0362477	.0008145	-.004580	-.003977	.7085166	.0180419
#3	1.558241	.0365987	.0008635	-.004811	-.003682	.6907789	.0184539

Sample Name: P4807-12 Acquired: 11/14/2024 20:43:33 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.8383153	-.030051	.3461360
Stddev	.0028389	.000241	.0030750
%RSD	.3386430	.8003888	.8883691
#1	.8407296	-.030242	.3487429
#2	.8390285	-.029781	.3469202
#3	.8351878	-.030130	.3427449

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2279.343	53285.63	12685.49	1608.498	3534.329
Stddev	4.516	321.06	118.14	9.841	9.640
%RSD	.1981339	.6025242	.9313212	.6117830	.2727572
#1	2280.686	53632.37	12580.74	1616.473	3542.377
#2	2283.035	52998.65	12662.18	1597.501	3536.964
#3	2274.307	53225.88	12813.55	1611.520	3523.645

Sample Name: CCV08 Acquired: 11/14/2024 20:47:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.918925	4.923580	4.899339	4.957773	4.945455	9.848184	9.683157
Stddev	.023134	.008235	.015768	.012123	.008186	.081459	.074164
%RSD	.4703084	.1672536	.3218383	.2445180	.1655268	.8271500	.7659047
#1	4.909656	4.933016	4.893490	4.947995	4.944430	9.754129	9.611618
#2	4.901863	4.919880	4.887331	4.953986	4.937830	9.894329	9.678161
#3	4.945257	4.917845	4.917195	4.971337	4.954106	9.896095	9.759693
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2448844	2.447263	24.16387	1.001982	2.445406	1.250025	4.864762
Stddev	.0008285	.009485	.22625	.001961	.007434	.002720	.010923
%RSD	.3383440	.3875872	.9363083	.1956727	.3039941	.2175705	.2245427
#1	.2441785	2.443863	23.91961	1.003970	2.442323	1.249354	4.852309
#2	.2446779	2.439947	24.20575	1.001927	2.440010	1.247704	4.872725
#3	.2457966	2.457980	24.36625	1.000050	2.453886	1.253017	4.869253
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.380278	24.06434	2.452821	1.232164	25.49488	2.438162	2.504457
Stddev	.021358	.16789	.007679	.001022	.08628	.020265	.008096
%RSD	.8972780	.6976903	.3130599	.0829109	.3384303	.8311527	.3232719
#1	2.363308	23.87110	2.449681	1.233209	25.58438	2.417811	2.505363
#2	2.373266	24.14743	2.447210	1.232117	25.41222	2.438334	2.512062
#3	2.404260	24.17448	2.461572	1.231167	25.48802	2.458340	2.495946
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.58287	4.847068	5.005711	4.894391	4.806528	4.914267	4.982530
Stddev	.02648	.027113	.012049	.015950	.039325	.047905	.022169
%RSD	.1077207	.5593719	.2406995	.3258830	.8181643	.9748246	.4449272
#1	24.57085	4.824193	5.001455	4.894226	4.767812	4.859174	4.986976
#2	24.56452	4.839994	4.996369	4.878525	4.805337	4.937518	4.958476
#3	24.61322	4.877016	5.019311	4.910423	4.846436	4.946110	5.002140

Sample Name: CCV08 Acquired: 11/14/2024 20:47:59 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.741729	4.834928	4.940380
Stddev	.008027	.033218	.027427
%RSD	.1692877	.6870349	.5551591
#1	4.739484	4.806760	4.934038
#2	4.735062	4.826465	4.916679
#3	4.750639	4.871558	4.970422

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2488.876	57312.61	12964.97	1722.969	3979.464
Stddev	2.845	55.66	67.27	5.012	3.472
%RSD	.1143029	.0971141	.5188935	.2908869	.0872465
#1	2487.698	57342.41	13029.46	1725.568	3979.365
#2	2486.809	57248.40	12970.24	1717.192	3976.043
#3	2492.121	57347.03	12895.22	1726.148	3982.985

Sample Name: CCB08 Acquired: 11/14/2024 21:42:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.000660	-.000714	.0003639	.0000531	-.000893	-.003101	-.001102
Stddev	.001695	.001005	.0000794	.0010325	.000478	.002167	.000175
%RSD	257.0245	140.8195	21.82435	1945.074	53.53141	69.90063	15.90358
#1	-.001057	-.001087	.0004556	-.000032	-.000750	-.002234	-.001001
#2	-.002121	.000425	.0003208	-.000934	-.001425	-.005567	-.001304
#3	.001199	-.001478	.0003154	.001126	-.000502	-.001501	-.001001
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000617	-.000068	-.007375	.0001671	.0001148	-.000071	.0003667
Stddev	.0000362	.000068	.005767	.0001226	.0000305	.000416	.0033305
%RSD	58.68407	100.4209	78.19831	73.35365	26.58126	582.7481	908.2565
#1	.0000705	-.000039	-.001100	.0003080	.0001215	-.000450	.0037877
#2	.0000927	-.000146	-.012443	.0001082	.0001414	-.000138	.0001777
#3	.0000219	-.000019	-.008581	.0000850	.0000815	.000374	-.002865
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000127	-.006941	.0004588	-.000135	-.100679	.0005949	.0002165
Stddev	.000077	.012633	.0000849	.000436	.017021	.0014924	.0001576
%RSD	60.40119	182.0011	18.50256	323.6448	16.90662	250.8749	72.81561
#1	-.000216	-.003232	.0003879	.000350	-.119922	.0022333	.0002469
#2	-.000079	.003422	.0005529	-.000259	-.094524	-.000687	.0000458
#3	-.000087	-.021014	.0004356	-.000494	-.087591	.000238	.0003566
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.023912	-.000953	-.000208	-.002994	.0000083	.0095853	-.001289
Stddev	.007070	.000285	.000068	.000495	.0002308	.0042139	.001236
%RSD	29.56817	29.93995	32.85527	16.54625	2793.150	43.96204	95.86399
#1	-.029041	-.000642	-.000280	-.002424	-.000258	.0049033	-.001027
#2	-.015847	-.001016	-.000198	-.003237	.000141	.0107788	-.000205
#3	-.026848	-.001202	-.000145	-.003320	.000142	.0130736	-.002635

Sample Name: CCB08 Acquired: 11/14/2024 21:42:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0028478	-.000509	-.000079
Stddev	.0004936	.000432	.000022
%RSD	17.33077	85.00880	28.44302
#1	.0034102	-.000238	-.000066
#2	.0024866	-.000281	-.000066
#3	.0026468	-.001007	-.000105

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2660.789	60428.67	13085.39	1850.228	4568.483
Stddev	6.356	104.68	44.16	7.455	6.105
%RSD	.2388661	.1732225	.3374813	.4029053	.1336356
#1	2665.859	60387.12	13072.34	1845.266	4571.908
#2	2662.850	60351.15	13049.22	1846.617	4572.107
#3	2653.659	60547.74	13134.60	1858.801	4561.435

Sample Name: P4807-16 Acquired: 11/14/2024 21:46:58 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.003678	-.013297	-.000137	.0043837	.0007822	-.006085	.4844292
Stddev	.001501	.002728	.000739	.0007542	.0013255	.004464	.0019106
%RSD	40.81931	20.51568	537.7659	17.20512	169.4699	73.37009	.3944096
#1	-.002385	-.013045	.000704	.0046350	.0012251	-.007634	.4822230
#2	-.005325	-.016142	-.000431	.0035359	-.000708	-.001052	.4855457
#3	-.003324	-.010704	-.000684	.0049803	.001829	-.009568	.4855189
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000045	.0004871	52.28990	.0010530	.0029811	.0537399	.1583892
Stddev	.000040	.0000642	.08397	.0002455	.0000949	.0002848	.0048656
%RSD	89.16634	13.18515	.1605825	23.31775	3.184550	.5299617	3.071935
#1	-.000054	.0004137	52.29171	.0007817	.0030082	.0536575	.1528351
#2	-.000001	.0005143	52.20504	.0012600	.0028756	.0535054	.1619000
#3	-.000079	.0005332	52.37294	.0011172	.0030596	.0540568	.1604324
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.202985	2.648092	.0037766	-.000198	383.8146	-.000337	.0433345
Stddev	.009430	.006647	.0001207	.000162	.7144	.000159	.0001054
%RSD	.2243594	.2510129	3.195660	81.82196	.1861223	47.38825	.2432377
#1	4.192517	2.643433	.0036410	-.000120	383.3360	-.000195	.0433098
#2	4.205626	2.645140	.0038722	-.000385	384.6358	-.000509	.0434500
#3	4.210813	2.655704	.0038166	-.000090	383.4722	-.000306	.0432436
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6079606	.0160929	.0004291	-.003953	-.001066	.4811947	.0095764
Stddev	.0089204	.0002956	.0001950	.000622	.000071	.0030294	.0002457
%RSD	1.467262	1.836918	45.43887	15.73864	6.675757	.6295643	2.565305
#1	.5977977	.0164335	.0005634	-.004072	-.000990	.4784039	.0093270
#2	.6144943	.0159039	.0005183	-.003280	-.001131	.4807636	.0098181
#3	.6115899	.0159411	.0002055	-.004507	-.001078	.4844166	.0095839

Sample Name: P4807-16 Acquired: 11/14/2024 21:46:58 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.2167422	-.009657	.0866709
Stddev	.0046740	.000444	.0003016
%RSD	2.156462	4.602053	.3480235
#1	.2181718	-.009198	.0863228
#2	.2205345	-.010086	.0868560
#3	.2115204	-.009687	.0868338

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2351.165	53423.29	13110.13	1629.479	3629.573
Stddev	8.426	58.33	26.21	2.534	7.553
%RSD	.3583905	.1091845	.1999211	.1554912	.2080904
#1	2355.566	53382.35	13079.93	1626.554	3634.171
#2	2356.479	53490.08	13126.95	1630.874	3633.692
#3	2341.449	53397.45	13123.50	1631.009	3620.856

Sample Name: P4809-04 Acquired: 11/14/2024 21:51:25 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.005309	-.008707	.0154690	.0041921	.0032825	-.044840	.2503045
Stddev	.000789	.001945	.0012994	.0008717	.0020208	.003667	.0006117
%RSD	14.85636	22.34068	8.399732	20.79478	61.56267	8.178370	.2443911
#1	-.005531	-.006470	.0140099	.0032163	.0011763	-.048742	.2496308
#2	-.004433	-.009997	.0158959	.0048941	.0034657	-.041465	.2508252
#3	-.005964	-.009654	.0165012	.0044660	.0052054	-.044312	.2504575
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000105	.0007983	179.1266	.0009915	.0051905	.0068390	.1887576
Stddev	.000026	.0000801	.9675	.0004878	.0001174	.0002897	.0040536
%RSD	25.21493	10.03497	.5401159	49.19403	2.260843	4.236084	2.147502
#1	-.000131	.0008895	178.1182	.0008988	.0052330	.0066290	.1855444
#2	-.000105	.0007661	180.0472	.0005568	.0052806	.0067185	.1874167
#3	-.000078	.0007392	179.2143	.0015190	.0050578	.0071695	.1933117
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.244937	3.982693	.0098234	-.000223	536.4486	.0018978	.0849333
Stddev	.009457	.022429	.0002654	.000397	3.6245	.0013035	.0000470
%RSD	.7596247	.5631525	2.702177	177.9821	.6756402	68.68321	.0553401
#1	1.234181	3.966743	.0100476	.000233	534.6193	.0022725	.0849842
#2	1.251947	4.008339	.0095303	-.000494	534.1034	.0029730	.0848916
#3	1.248682	3.972999	.0098923	-.000408	540.6232	.0004481	.0849242
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.405116	.0411867	.0038684	-.005482	-.003871	3.778020	.0183306
Stddev	.012518	.0002521	.0000903	.001164	.000169	.013769	.0014022
%RSD	.3676331	.6120590	2.333950	21.24314	4.362681	.3644464	7.649341
#1	3.403682	.0409255	.0039634	-.006011	-.003849	3.764115	.0199240
#2	3.393375	.0414286	.0038580	-.006288	-.003714	3.791649	.0177822
#3	3.418289	.0412061	.0037837	-.004147	-.004050	3.778296	.0172854

Sample Name: P4809-04 Acquired: 11/14/2024 21:51:25 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	2.840971	-.027844	.6352521
Stddev	.003840	.000572	.0023837
%RSD	.1351522	2.052628	.3752345
#1	2.840040	-.027187	.6325020
#2	2.845191	-.028121	.6367243
#3	2.837683	-.028225	.6365301

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2201.321	50586.11	12442.73	1522.685	3440.789
Stddev	4.332	162.69	34.41	13.245	1.098
%RSD	.1967740	.3216122	.2765444	.8698757	.0319143
#1	2196.412	50437.72	12442.17	1508.185	3442.056
#2	2204.608	50760.08	12408.61	1534.150	3440.109
#3	2202.942	50560.54	12477.42	1525.718	3440.204

Sample Name: P4813-02 Acquired: 11/14/2024 21:55:50 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.014224	-.015672	1.168290	.0071545	.0036366	.0195187	.2976756
Stddev	.002663	.001515	.002534	.0011120	.0002611	.0006361	.0034386
%RSD	18.71846	9.664288	.2168694	15.54265	7.179840	3.258898	1.155156
#1	-.014323	-.015233	1.168407	.0082467	.0034717	.0192897	.2989355
#2	-.011514	-.017357	1.165700	.0060237	.0039376	.0190288	.3003065
#3	-.016836	-.014425	1.170764	.0071931	.0035004	.0202376	.2937847
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000383	.0005075	1.410612	.0008936	-.000185	.0571123	.0178141
Stddev	.000012	.0000556	.024939	.0000891	.000042	.0007369	.0026089
%RSD	3.240016	10.95068	1.767964	9.973457	22.61527	1.290235	14.64518
#1	-.000398	.0005683	1.402403	.0009760	-.000138	.0575421	.0159599
#2	-.000378	.0004951	1.438621	.0007990	-.000203	.0562614	.0207974
#3	-.000374	.0004592	1.390812	.0009057	-.000216	.0575334	.0166850
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0244674	.1194586	.0013330	-.000483	362.3741	.0005198	.5446125
Stddev	.0002060	.0104644	.0002932	.000288	2.0867	.0008329	.0017451
%RSD	.8421118	8.759889	21.99690	59.61245	.5758353	160.2449	.3204226
#1	.0244165	.1155768	.0011489	-.000631	362.7330	-.000362	.5445785
#2	.0246941	.1313092	.0011789	-.000151	360.1313	.001293	.5463743
#3	.0242915	.1114897	.0016711	-.000668	364.2581	.000628	.5428847
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6981425	.1006624	.0005057	-.001388	-.000121	.1403868	.0554336
Stddev	.0272736	.0017849	.0001172	.000130	.000136	.0040412	.0008991
%RSD	3.906601	1.773111	23.17123	9.373007	112.4539	2.878588	1.621972
#1	.6798174	.1022244	.0006049	-.001318	-.000076	.1429827	.0555216
#2	.7294860	.1010458	.0005359	-.001538	-.000013	.1424470	.0562855
#3	.6851241	.0987170	.0003764	-.001307	-.000274	.1357308	.0544937

Sample Name: P4813-02 Acquired: 11/14/2024 21:55:50 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.4316524	-.001490	.0123418
Stddev	.0011304	.000561	.0001249
%RSD	.2618793	37.65836	1.011751
#1	.4303551	-.001433	.0123635
#2	.4321760	-.000959	.0124544
#3	.4324261	-.002077	.0122075

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2355.210	52936.80	12500.57	1616.472	3813.119
Stddev	8.258	125.73	185.04	10.915	12.368
%RSD	.3506364	.2375061	1.480220	.6752258	.3243420
#1	2345.689	52904.35	12408.06	1613.950	3803.740
#2	2360.436	52830.49	12380.04	1607.040	3827.135
#3	2359.505	53075.58	12713.62	1628.428	3808.482

Sample Name: P4813-03 Acquired: 11/14/2024 22:00:16 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.006241	-.009201	.0036250	.0038512	.0001122	.0115679	.4183483
Stddev	.000367	.000360	.0006182	.0017301	.0007275	.0080346	.0025206
%RSD	5.885394	3.910122	17.05264	44.92476	648.2002	69.45578	.6025203

#1	-.006231	-.009613	.0040837	.0027857	-.000725	.0030958	.4157705
#2	-.005878	-.009046	.0038693	.0058475	.000587	.0125297	.4184671
#3	-.006613	-.008945	.0029220	.0029205	.000475	.0190784	.4208075

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000180	-.000072	1.115854	.0037755	-.000321	.0016405	.0359368
Stddev	.000012	.000042	.006152	.0003040	.000059	.0001798	.0029474
%RSD	6.678892	59.13718	.5513706	8.052650	18.34958	10.96187	8.201566

#1	-.000167	-.000028	1.112356	.0034426	-.000260	.0015205	.0393390
#2	-.000189	-.000075	1.112249	.0038454	-.000377	.0015537	.0343121
#3	-.000185	-.000112	1.122958	.0040384	-.000325	.0018473	.0341593

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0277867	.1444994	.0016637	-.000394	288.3137	-.000289	.3022057
Stddev	.0001118	.0105902	.0001732	.000113	2.0321	.001077	.0010627
%RSD	.4022191	7.328908	10.41239	28.59206	.7048220	372.2285	.3516467

#1	.0276711	.1405840	.0017448	-.000265	288.6999	.000222	.3009927
#2	.0277949	.1364244	.0014648	-.000440	286.1162	-.001526	.3029726
#3	.0278942	.1564898	.0017816	-.000476	290.1250	.000437	.3026519

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5788740	.1286484	.0004281	-.003560	.0001894	.0676299	.0520824
Stddev	.0073852	.0001042	.0001942	.000461	.0001073	.0032160	.0017801
%RSD	1.275791	.0809925	45.37195	12.94714	56.63563	4.755278	3.417914

#1	.5812689	.1285695	.0003456	-.004053	.0001906	.0710926	.0537222
#2	.5847645	.1286092	.0002887	-.003484	.0002962	.0647368	.0501891
#3	.5705885	.1287665	.0006499	-.003141	.0000816	.0670602	.0523360

Sample Name: P4813-03 Acquired: 11/14/2024 22:00:16 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.4446032	-.001601	.0095663
Stddev	.0036862	.000521	.0000573
%RSD	.8290903	32.51791	.5994068

#1	.4413640	-.001092	.0095096
#2	.4438314	-.002133	.0096243
#3	.4486141	-.001578	.0095649

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2461.499	55138.76	12834.03	1735.910	3940.446
Stddev	4.588	141.76	40.91	11.341	4.238
%RSD	.1863787	.2570899	.3187269	.6533089	.1075532

#1	2462.309	55012.31	12854.59	1724.562	3942.103
#2	2465.628	55292.00	12860.57	1747.243	3943.605
#3	2456.561	55111.99	12786.92	1735.924	3935.630

Sample Name: CCV09 Acquired: 11/14/2024 22:04:42 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.790749	4.878773	4.827974	4.761615	4.756872	9.702072	9.853508
Stddev	.031242	.030628	.011656	.024394	.022910	.206755	.207148
%RSD	.6521250	.6277807	.2414340	.5123001	.4816101	2.131035	2.102275
#1	4.761368	4.854610	4.816347	4.736666	4.734831	9.927930	10.04279
#2	4.787311	4.868490	4.827916	4.762766	4.755222	9.656143	9.88551
#3	4.823567	4.913220	4.839659	4.785413	4.780561	9.522145	9.63222
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2480716	2.423884	24.51337	.9798080	2.409892	1.222869	4.900291
Stddev	.0056536	.008052	.54740	.0060262	.008655	.004553	.013111
%RSD	2.279035	.3321998	2.233085	.6150427	.3591352	.3723083	.2675549
#1	.2545499	2.417300	25.11317	.9787495	2.401819	1.218717	4.885307
#2	.2455302	2.421490	24.38619	.9743812	2.408827	1.222152	4.905912
#3	.2441346	2.432862	24.04075	.9862934	2.419030	1.227738	4.909655
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.451883	23.92068	2.421461	1.214524	25.21039	2.443338	2.436856
Stddev	.060336	.52654	.008763	.002253	.13632	.055479	.004471
%RSD	2.460784	2.201206	.3619016	.1854991	.5407305	2.270620	.1834774
#1	2.517929	24.49313	2.415011	1.212255	25.28979	2.503806	2.438242
#2	2.438065	23.81186	2.417934	1.214557	25.28840	2.431424	2.431856
#3	2.399656	23.45705	2.431439	1.216760	25.05298	2.394784	2.440470
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.31714	4.884006	4.835668	4.829519	4.845462	4.792787	5.067500
Stddev	.08060	.114761	.022312	.018402	.108555	.033183	.017747
%RSD	.3314605	2.349735	.4614144	.3810304	2.240348	.6923486	.3502143
#1	24.24864	5.013917	4.814937	4.811138	4.962422	4.754703	5.055939
#2	24.40596	4.841686	4.832785	4.829478	4.826029	4.808178	5.058627
#3	24.29683	4.796415	4.859282	4.847942	4.747936	4.815480	5.087934

Sample Name: CCV09 Acquired: 11/14/2024 22:04:42 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	4.729425	4.831145	4.968453
Stddev	.019655	.104286	.142463
%RSD	.4155860	2.158621	2.867359
#1	4.712926	4.942616	5.124945
#2	4.724178	4.814857	4.934125
#3	4.751171	4.735961	4.846291

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2582.201	57790.51	12834.56	1834.854	4064.226
Stddev	7.142	111.32	312.30	5.834	12.839
%RSD	.2765731	.1926230	2.433270	.3179737	.3159128
#1	2587.624	57786.80	12490.55	1835.853	4073.372
#2	2584.870	57681.10	12912.89	1828.585	4069.759
#3	2574.110	57903.64	13100.23	1840.125	4049.548

Sample Name: CCB09 Acquired: 11/14/2024 22:08:54 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.001414	-.000778	-.000107	-.000122	-.000881	-.004911	-.000493
Stddev	.001192	.000369	.000812	.001235	.000995	.000703	.000246
%RSD	84.32250	47.35443	756.5219	1015.576	112.8562	14.30654	49.81125

#1	-.001436	-.000866	.000062	-.001253	-.000033	-.004340	-.000750
#2	-.000211	-.001095	.000607	-.000308	-.000635	-.005696	-.000469
#3	-.002596	-.000374	-.000991	.001196	-.001976	-.004697	-.000261

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000547	-.000037	.0108212	.0000796	-.000064	-.000102	.0018514
Stddev	.0000328	.000064	.0112604	.0001926	.000035	.000213	.0019555
%RSD	59.99866	171.7981	104.0585	241.7841	54.50318	210.1318	105.6238

#1	.0000895	.000035	-.001927	-.000114	-.000089	-.000347	.0030418
#2	.0000243	-.000086	.019412	.000271	-.000024	.000004	.0029178
#3	.0000503	-.000060	.014979	.000082	-.000078	.000039	-.000405

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000967	.0012991	.0004192	-.000134	.0316418	.0002421	.0008749
Stddev	.0001036	.0050483	.0003447	.000104	.0266907	.0004090	.0002621
%RSD	107.1157	388.6035	82.24279	77.69723	84.35264	168.9224	29.95932

#1	.0001949	.0011414	.0004705	-.000037	.0110277	.0000197	.0005811
#2	-.000012	.0064244	.0000517	-.000244	.0221073	-.000008	.0009587
#3	.000107	-.003669	.0007354	-.000120	.0617904	.000714	.0010848

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0276539	.0038656	.0000393	.0036685	.0001279	.0067970	-.003409
Stddev	.0057223	.0005096	.0001457	.0005206	.0008167	.0003856	.000914
%RSD	20.69266	13.18317	370.5586	14.19212	638.7334	5.672590	26.79325

#1	.0314514	.0044092	.0000739	.0041631	.0010708	.0070925	-.002929
#2	.0304380	.0037890	-.000121	.0031253	-.000335	.0063608	-.004463
#3	.0210723	.0033986	.000165	.0037172	-.000352	.0069376	-.002837

Sample Name: CCB09 Acquired: 11/14/2024 22:08:54 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0008892	.0001124	.0000372
Stddev	.0024235	.0004597	.0000228
%RSD	272.5499	409.0304	61.22835
#1	-.000840	.0003960	.0000238
#2	-.000151	.0003592	.0000636
#3	.003659	-.000418	.0000243

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2661.046	59936.00	13205.33	1864.174	4507.159
Stddev	22.080	241.22	84.38	10.509	32.251
%RSD	.8297570	.4024663	.6389804	.5637561	.7155559
#1	2684.574	59962.52	13155.88	1872.147	4541.540
#2	2657.789	59682.61	13157.35	1852.264	4502.363
#3	2640.775	60162.87	13302.76	1868.110	4477.575

Sample Name: P4813-05 Acquired: 11/14/2024 22:13:15 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.008916	-.010440	26.76219	.0027605	.0008777	.0136592
Stddev	.003394	.000878	.07154	.0016868	.0012228	.0029722
%RSD	38.06480	8.406493	.2673151	61.10714	139.3174	21.75942
#1	-.012429	-.010139	26.68581	.0046224	.0015387	.0123162
#2	-.005655	-.009752	26.82763	.0013342	-.000533	.0170658
#3	-.008664	-.011428	26.77314	.0023248	.001628	.0115956
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6796258	.0014185	.0020248	25.95984	.0009570	.0060021
Stddev	.0014084	.0000529	.0000637	.06699	.0003128	.0001866
%RSD	.2072350	3.729762	3.144044	.2580551	32.68550	3.109655
#1	.6810721	.0013722	.0019633	25.88285	.0012155	.0062125
#2	.6782586	.0014762	.0020904	26.00488	.0010461	.0059370
#3	.6795465	.0014072	.0020206	25.99178	.0006093	.0058567
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1620269	.0357448	.4024771	23.08761	.0165320	-.000430
Stddev	.0006390	.0041027	.0008931	.11846	.0000820	.000136
%RSD	.3943752	11.47788	.2218947	.5130722	.4959147	31.54457
#1	.1615028	.0374077	.4033194	22.95196	.0166176	-.000304
#2	.1618392	.0310716	.4015407	23.14020	.0165242	-.000574
#3	.1627387	.0387550	.4025714	23.17066	.0164542	-.000413
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	352.6789	.0019431	.5139243	12.19179	.2207987	.0006497
Stddev	2.0064	.0008068	.0032649	.07554	.0001982	.0001152
%RSD	.5688918	41.52324	.6352798	.6195874	.0897612	17.72649
#1	354.1119	.0010122	.5176165	12.26602	.2207529	.0007825
#2	353.5389	.0023771	.5127377	12.19436	.2206274	.0005771
#3	350.3859	.0024401	.5114187	12.11501	.2210158	.0005895

Sample Name: P4813-05 Acquired: 11/14/2024 22:13:15 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.003992	-.000541	F 13.68870	.0376215	1.570988	.0199245
Stddev	.000217	.000240	.05809	.0025279	.007063	.0004834
%RSD	5.442484	44.37373	.4243600	6.719240	.4495827	2.425980
#1	-.004109	-.000346	13.65848	.0362063	1.563237	.0199259
#2	-.004125	-.000469	13.75567	.0405400	1.572668	.0194405
#3	-.003741	-.000810	13.65194	.0361182	1.577060	.0204072

Elem	Sr4077
Units	ppm
Avg	.1594913
Stddev	.0003238
%RSD	.2030350
#1	.1598522
#2	.1592262
#3	.1593955

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2358.996	54069.87	12962.87	1642.730	3687.756
Stddev	11.228	362.86	22.06	21.210	12.402
%RSD	.4759747	.6710865	.1701832	1.291118	.3362891
#1	2354.214	53883.23	12942.87	1623.683	3688.574
#2	2371.823	53838.33	12959.22	1638.921	3699.729
#3	2350.949	54488.06	12986.53	1665.586	3674.966

Sample Name: P4812-03 Acquired: 11/14/2024 22:17:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.036758	.5730756	.0094009	.5264213	-.001446	.1382330
Stddev	.006224	.0027020	.0013465	.0071444	.002986	.0043784
%RSD	16.93295	.4714951	14.32279	1.357160	206.4849	3.167398
#1	-.033053	.5750877	.0107914	.5337018	-.000355	.1349311
#2	-.043944	.5700045	.0093080	.5261407	-.004824	.1431996
#3	-.033277	.5741346	.0081033	.5194213	.000841	.1365682
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0316556	-.003275	-.003000	3.938931	.0035331	-.020422
Stddev	.0001776	.000066	.000102	.016912	.0000845	.000194
%RSD	.5609849	2.015756	3.414124	.4293670	2.391198	.9483577
#1	.0316760	-.003348	-.003084	3.956455	.0035960	-.020624
#2	.0314687	-.003260	-.002886	3.937633	.0035662	-.020403
#3	.0318220	-.003219	-.003029	3.922705	.0034371	-.020239
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4160568	-.121735	.1083814	.5299651	-.016709	-.002211
Stddev	.0011202	.008382	.0007266	.0047739	.000167	.000144
%RSD	.2692351	6.885137	.6704158	.9007870	.9997288	6.498038
#1	.4161111	-.113551	.1083689	.5255081	-.016598	-.002199
#2	.4149105	-.121353	.1091143	.5350027	-.016901	-.002073
#3	.4171489	-.130301	.1076612	.5293844	-.016629	-.002360
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	480.4417	-.130111	.6921451	F 1027.564	.6305670	F 41.68882
Stddev	1.3162	.000956	.0009542	2.976	.0032722	.06389
%RSD	.2739591	.7348410	.1378629	.2896313	.5189350	.1532465
#1	481.4433	-.129461	.6923387	1030.504	.6318778	41.74738
#2	480.9308	-.131209	.6911089	1024.553	.6329805	41.62069
#3	478.9509	-.129663	.6929877	1027.634	.6268425	41.69841

Sample Name: P4812-03 Acquired: 11/14/2024 22:17:37 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.2512756	.0027155	1.183267	3.485847	F 14.51207	.1652190
Stddev	.0010241	.0005887	.011586	.015397	.04943	.0006767
%RSD	.4075800	21.68012	.9791767	.4417004	.3406284	.4095650
#1	.2521347	.0020890	1.175290	3.472939	14.45753	.1656090
#2	.2515498	.0032573	1.177953	3.481713	14.55393	.1656104
#3	.2501422	.0028001	1.196557	3.502889	14.52476	.1644377

Elem	Sr4077
Units	ppm
Avg	.1039071
Stddev	.0002272
%RSD	.2186320
#1	.1040775
#2	.1039946
#3	.1036492

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1512.055	37358.54	10876.90	1021.355	2756.633
Stddev	7.278	41.05	42.34	5.243	9.274
%RSD	.4813099	.1098900	.3892584	.5133385	.3364133
#1	1503.828	37311.14	10859.92	1016.549	2746.610
#2	1517.651	37381.78	10845.68	1020.570	2764.908
#3	1514.686	37382.71	10925.09	1026.946	2758.382

Sample Name: P4813-01 Acquired: 11/14/2024 22:22:05 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.010710	-.010654	.5979271	.0033394	.0273856	.0035973
Stddev	.002017	.001232	.0010454	.0038194	.0019979	.0042600
%RSD	18.83709	11.56144	.1748333	114.3742	7.295360	118.4210
#1	-.008836	-.011173	.5968437	-.000312	.0277692	.0004642
#2	-.010449	-.009248	.5980077	.007307	.0252237	.0018798
#3	-.012845	-.011542	.5989298	.003023	.0291639	.0084479
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.11313	-.000168	.0002851	260.5119	.0038810	-.005016
Stddev	.03890	.000036	.0000714	1.5128	.0003077	.000095
%RSD	.2035394	21.41443	25.03829	.5807140	7.928001	1.893843
#1	19.11917	-.000207	.0003620	258.8884	.0039499	-.004958
#2	19.07156	-.000137	.0002210	260.7653	.0035447	-.005125
#3	19.14866	-.000159	.0002724	261.8820	.0041484	-.004964
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1858725	1.022906	.2737715	71.76143	.0285618	-.000318
Stddev	.0009121	.006684	.0014556	.26088	.0003872	.000297
%RSD	.4907191	.6533992	.5316872	.3635327	1.355693	93.37202
#1	.1849341	1.015329	.2720942	71.54906	.0284425	-.000244
#2	.1867559	1.025424	.2745171	71.68259	.0289946	-.000645
#3	.1859276	1.027965	.2747034	72.05263	.0282482	-.000065
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1196.052	.0084282	4.413499	32.24390	3.340536	.3997907
Stddev	2.582	.0002082	.020760	.15623	.017458	.0008992
%RSD	.2158893	2.470590	.4703828	.4845389	.5226243	.2249273
#1	1196.850	.0082253	4.435043	32.06678	3.355282	.3990996
#2	1193.165	.0084179	4.411830	32.30277	3.321259	.4008074
#3	1198.140	.0086414	4.393624	32.36214	3.345068	.3994651

Sample Name: P4813-01 Acquired: 11/14/2024 22:22:05 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0051205	.0042867	1.694732	kF 10.61195	F 17.97249	1.285327
Stddev	.0012027	.0004304	.004659	.04254	.04279	.003708
%RSD	23.48886	10.04157	.2749297	.4008898	.2380999	.2884609
#1	.0041171	.0038034	1.698727	k 10.62243	17.99405	1.281705
#2	.0064537	.0046289	1.689613	k 10.64827	18.00021	1.285160
#3	.0047905	.0044277	1.695855	k 10.56514	17.92320	1.289115

Elem	Sr4077
Units	ppm
Avg	^ *****
Stddev	-----
%RSD	-----
#1	^ -----
#2	^ -----
#3	^ -----

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2001.496	45416.25	11233.15	1363.656	3049.403
Stddev	11.202	199.39	63.84	8.165	14.895
%RSD	.5596862	.4390232	.5682907	.5987552	.4884562
#1	1994.370	45188.46	11160.12	1360.153	3035.047
#2	1995.711	45501.20	11278.32	1357.828	3048.377
#3	2014.408	45559.11	11261.01	1372.988	3064.784

Sample Name: P4813-04DLX5 Acquired: 11/14/2024 22:26:35 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0117169	.0690776	.0006879	.0493806	.0116429	.0024356	.0030004
Stddev	.0029523	.0019425	.0002097	.0023367	.0012584	.0047827	.0003614
%RSD	25.19711	2.812063	30.48894	4.731974	10.80845	196.3668	12.04406

#1	.0142749	.0711870	.0004637	.0520248	.0130849	-.002931	.0033580
#2	.0084863	.0686834	.0007207	.0485232	.0110778	.003991	.0030079
#3	.0123895	.0673624	.0008792	.0475937	.0107662	.006247	.0026353

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001037	-.000426	.6230732	-.000185	-.003018	.0158286	-.013378
Stddev	.000077	.000037	.0084947	.000119	.000158	.0000592	.003870
%RSD	7.383354	8.758866	1.363358	64.27765	5.227405	.3738042	28.92550

#1	-.000960	-.000428	.6133909	-.000050	-.003161	.0158196	-.010383
#2	-.001039	-.000387	.6265541	-.000229	-.003043	.0157744	-.012004
#3	-.001113	-.000462	.6292745	-.000275	-.002849	.0158917	-.017747

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1397124	.0743501	-.002086	-.000582	59.50629	-.021944	.0315511
Stddev	.0020760	.0050153	.000245	.000204	.23490	.002049	.0002592
%RSD	1.485915	6.745539	11.72699	35.09280	.3947543	9.336121	.8216004

#1	.1375131	.0767820	-.001808	-.000388	59.63177	-.019743	.0314309
#2	.1399862	.0685825	-.002271	-.000562	59.65180	-.022295	.0318486
#3	.1416379	.0776859	-.002177	-.000795	59.23529	-.023795	.0313738

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	187.9711	1.571015	5.837339	.0192870	.0003834	.5340347	.8182618
Stddev	.4763	.015273	.019920	.0009931	.0001989	.0042376	.0041491
%RSD	.2533706	.9721901	.3412580	5.149092	51.86999	.7935164	.5070634

#1	187.6306	1.555487	5.854779	.0204290	.0001546	.5294127	.8227400
#2	188.5153	1.571537	5.815630	.0188054	.0004804	.5349547	.8174974
#3	187.7673	1.586020	5.841608	.0186265	.0005151	.5377369	.8145481

Sample Name: P4813-04DLX5 Acquired: 11/14/2024 22:26:35 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	1.397348	.0022180	.0134199
Stddev	.008714	.0005037	.0014391
%RSD	.6236430	22.71054	10.72358

#1	1.407266	.0020627	.0149888
#2	1.393861	.0018102	.0131097
#3	1.390917	.0027811	.0121612

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2351.924	52697.40	12408.77	1614.300	4019.575
Stddev	9.144	174.60	105.12	14.787	5.489
%RSD	.3887764	.3313343	.8471412	.9160291	.1365449

#1	2342.404	52684.66	12528.64	1614.342	4014.603
#2	2360.638	52529.51	12365.33	1599.492	4018.657
#3	2352.729	52878.02	12332.33	1629.067	4025.465

Sample Name: LR1 Acquired: 11/14/2024 22:36:13 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0154714	.1221451	.0241164	-.238665	-.006917	2127.035	.0179698
Stddev	.0118449	.0044389	.0087969	.003802	.007168	38.465	.0009339
%RSD	76.56005	3.634152	36.47696	1.593075	103.6231	1.808377	5.196882
#1	.0161448	.1260126	.0149019	-.239502	-.000475	2082.649	.0176692
#2	.0269653	.1172983	.0250215	-.241978	-.005638	2147.827	.0190170
#3	.0033042	.1231245	.0324257	-.234514	-.014638	2150.628	.0172233
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0095373	.1430886	1620.353	-.002594	.0438076	-.762331	1009.637
Stddev	.0001145	.0011104	38.666	.000563	.0006675	.007955	9.379
%RSD	1.200019	.7759855	2.386274	21.70374	1.523665	1.043472	.9289118
#1	.0094476	.1423904	1576.601	-.002827	.0431949	-.767183	1014.616
#2	.0094980	.1425065	1649.933	-.001952	.0437090	-.766659	1015.476
#3	.0096662	.1443690	1634.527	-.003002	.0445189	-.753150	998.819
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.101116	1752.931	.0185619	-.002588	2090.224	.0574585	.3027635
Stddev	.002120	49.242	.0004509	.002028	22.812	.0004722	.0031464
%RSD	2.096736	2.809142	2.429189	78.36967	1.091371	.8217701	1.039232
#1	-.098677	1696.106	.0189587	-.003105	2115.201	.0570080	.3041053
#2	-.102517	1779.611	.0186556	-.000351	2084.984	.0579498	.2991687
#3	-.102155	1783.075	.0180715	-.004306	2070.488	.0574177	.3050166
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1444.821	.1495414	-.008065	.0186463	-.038915	.1654677	.0820566
Stddev	15.797	.0319344	.001777	.0022678	.000829	.0049411	.0024642
%RSD	1.093374	21.35487	22.02820	12.16224	2.130964	2.986152	3.003071
#1	1459.161	.1842006	-.008842	.0179541	-.038004	.1687876	.0792139
#2	1447.415	.1431138	-.006032	.0168052	-.039627	.1678264	.0835873
#3	1427.888	.1213097	-.009321	.0211795	-.039113	.1597893	.0833685

Sample Name: LR1 Acquired: 11/14/2024 22:36:13 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.196096	-.258174	-.995948
Stddev	.005621	.006597	.009283
%RSD	2.866559	2.555416	.9320345
#1	-.191874	-.250734	-1.00080
#2	-.202477	-.263312	-1.00180
#3	-.193937	-.260477	-.98524

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1515.358	36311.15	9854.559	1049.921	2128.558
Stddev	1.462	152.91	216.997	8.282	1.921
%RSD	.0965104	.4210976	2.201998	.7888439	.0902420
#1	1515.488	36141.18	10104.47	1041.529	2128.648
#2	1516.751	36354.76	9713.88	1050.144	2130.432
#3	1513.835	36437.53	9745.33	1058.089	2126.593

Sample Name: LR2 Acquired: 11/14/2024 22:41:11 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0091233	-.045504	228.6793	.0053176	-.001203	.0599676	^F *****
Stddev	.0011496	.004453	.4875	.0038349	.003337	.0018968	----
%RSD	12.60007	9.785697	.2131684	72.11738	277.3459	3.163110	----
#1	.0088672	-.040375	228.5361	.0097363	-.005056	.0586660	^ ----
#2	.0103794	-.047749	228.2794	.0033604	.000669	.0621440	^ ----
#3	.0081235	-.048387	229.2223	.0028563	.000778	.0590929	^ ----
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002553	-.006884	.3228940	.0128075	-.028892	248.7659	.0051680
Stddev	.000121	.000041	.0014885	.0000326	.000227	.2737	.0054668
%RSD	4.726131	.5980573	.4609908	.2548295	.7842626	.1100146	105.7825
#1	-.002633	-.006910	.3217161	.0127961	-.029015	248.5331	.0086841
#2	-.002611	-.006904	.3245670	.0128443	-.029032	248.6971	.0079501
#3	-.002414	-.006836	.3223989	.0127821	-.028631	249.0674	-.001130
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.57199	-.060265	45.77354	.0024792	.3258405	-.015656	33.29114
Stddev	.50992	.013042	.08068	.0001231	.0021168	.000511	.36544
%RSD	1.226600	21.64128	.1762630	4.966376	.6496519	3.266130	1.097700
#1	40.99349	-.045255	45.76454	.0026157	.3267157	-.015097	33.43496
#2	41.95623	-.068832	45.69773	.0023763	.3234264	-.016100	33.56278
#3	41.76625	-.066708	45.85834	.0024458	.3273794	-.015772	32.87567
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5033639	.0005778	-.006205	-.005457	-.043970	-.006747	1.982332
Stddev	.0115461	.0003480	.000141	.000266	.000170	.006505	.008927
%RSD	2.293777	60.22813	2.265847	4.877557	.3856986	96.41042	.4503168
#1	.5152740	.0001866	-.006228	-.005741	-.044136	-.001265	1.981858
#2	.5025976	.0008529	-.006332	-.005214	-.043976	-.013935	1.973652
#3	.4922201	.0006937	-.006054	-.005416	-.043797	-.005041	1.991487

Sample Name: LR2 Acquired: 11/14/2024 22:41:11 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.026247	-.000945	.0024308
Stddev	.002546	.000141	.0000754
%RSD	9.699129	14.96846	3.101224
#1	-.023508	-.000942	.0023443
#2	-.028541	-.000805	.0024662
#3	-.026691	-.001088	.0024821

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2194.229	57647.60	13066.05	1669.408	4028.816
Stddev	6.707	102.26	51.50	1.468	7.344
%RSD	.3056521	.1773893	.3941863	.0879441	.1822936
#1	2201.898	57546.22	13114.84	1670.799	4037.194
#2	2189.460	57645.84	13012.21	1669.552	4023.487
#3	2191.328	57750.72	13071.12	1667.873	4025.768

Sample Name: P4834-01 Acquired: 11/14/2024 22:45:34 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.005988	-.007282	.0123693	.0015279	.0024087	2.371343
Stddev	.001377	.000509	.0007294	.0007768	.0001558	.008743
%RSD	22.99239	6.995855	5.896930	50.83893	6.466991	.3686917
#1	-.006135	-.007784	.0131192	.0019484	.0022926	2.369467
#2	-.004544	-.007298	.0123266	.0006316	.0023478	2.380872
#3	-.007286	-.006765	.0116622	.0020039	.0025858	2.363691
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0487240	.0001152	.0000923	42.61052	.0094097	.0019775
Stddev	.0001665	.0000112	.0001024	.12507	.0001846	.0000198
%RSD	.3416203	9.711993	111.0034	.2935104	1.961411	1.003186
#1	.0487974	.0001059	.0002103	42.48342	.0092810	.0019689
#2	.0485334	.0001277	.0000268	42.61470	.0093270	.0019633
#3	.0488411	.0001121	.0000397	42.73345	.0096212	.0020002
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0492622	5.048208	.1285093	5.619068	.0083130	-.000186
Stddev	.0005858	.022379	.0002449	.006632	.0001860	.000238
%RSD	1.189133	.4432968	.1905661	.1180246	2.236936	127.8740
#1	.0496497	5.030446	.1286031	5.622248	.0085155	-.000345
#2	.0485883	5.040836	.1282314	5.611445	.0081499	.000087
#3	.0495486	5.073343	.1286934	5.623512	.0082735	-.000300
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	60.71305	.0068433	.1438731	3.981194	.0257175	.0047168
Stddev	.28360	.0006404	.0011256	.014259	.0002470	.0003022
%RSD	.4671124	9.358719	.7823654	.3581623	.9603919	6.406440
#1	60.39834	.0061038	.1448000	3.996962	.0256479	.0047200
#2	60.79203	.0072083	.1441986	3.977412	.0255128	.0044131
#3	60.94879	.0072179	.1426206	3.969206	.0259918	.0050174

Sample Name: P4834-01 Acquired: 11/14/2024 22:45:34 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.002581	.0864110	F 11.66631	.2436005	F 20.56527	.0143355
Stddev	.000120	.0001491	.03085	.0048693	.16492	.0001648
%RSD	4.640268	.1725265	.2644603	1.998896	.8019551	1.149705
#1	-.002464	.0865747	11.63532	.2403104	20.41502	.0145207
#2	-.002704	.0862831	11.66658	.2412969	20.53904	.0142809
#3	-.002576	.0863751	11.69703	.2491942	20.74173	.0142049

Elem	Sr4077
Units	ppm
Avg	.1319097
Stddev	.0003533
%RSD	.2678068
#1	.1315317
#2	.1319660
#3	.1322315

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2512.930	56309.29	13107.14	1708.986	4155.209
Stddev	20.013	89.23	30.20	2.590	35.631
%RSD	.7963950	.1584570	.2304380	.1515482	.8574956
#1	2532.826	56252.67	13086.28	1707.867	4189.228
#2	2513.161	56263.05	13093.36	1711.948	4158.238
#3	2492.802	56412.14	13141.78	1707.144	4118.160

Sample Name: P4835-01 Acquired: 11/14/2024 22:49:49 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0799980	.0117467	.5980927	-.037251	.0097272	108.6891
Stddev	.0005420	.0024956	.0015353	.001337	.0032023	.1163
%RSD	.6775070	21.24512	.2567034	3.589589	32.92131	.1069642
#1	.0803648	.0088972	.5966864	-.038465	.0067085	108.6975
#2	.0802538	.0127993	.5978610	-.035818	.0093870	108.5688
#3	.0793755	.0135434	.5997307	-.037469	.0130860	108.8009
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.585167	.0253367	.0486323	121.0309	.1284804	.0756940
Stddev	.008677	.0000585	.0002513	.3846	.0005569	.0002535
%RSD	.3356505	.2309595	.5166370	.3177614	.4334813	.3348383
#1	2.577159	.0252770	.0483536	121.4670	.1289784	.0754164
#2	2.583955	.0253391	.0487021	120.8858	.1285837	.0757526
#3	2.594386	.0253940	.0488413	120.7400	.1278790	.0759130
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.706185	221.2542	2.925615	40.38478	.1435038	.0203859
Stddev	.002641	1.3973	.012762	.09476	.0002631	.0001717
%RSD	.1547987	.6315177	.4362053	.2346318	.1833139	.8422226
#1	1.703665	222.8431	2.939865	40.49409	.1432353	.0205358
#2	1.705957	220.2171	2.921739	40.32589	.1435151	.0201985
#3	1.708933	220.7024	2.915240	40.33437	.1437611	.0204233
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.98751	.2208032	20.58048	46.78154	.2099070	.0035161
Stddev	.07502	.0005719	.10670	.19743	.0019097	.0002652
%RSD	.3951123	.2589976	.5184482	.4220297	.9098026	7.541087
#1	19.05998	.2203712	20.67699	46.94585	.2119834	.0032107
#2	18.91018	.2214518	20.46590	46.56252	.2095119	.0036872
#3	18.99237	.2205867	20.59855	46.83623	.2082257	.0036505

Sample Name: P4835-01 Acquired: 11/14/2024 22:49:49 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0029328	.5162020	F 104.1027	F 19.06585	F 34.65903	.0432234
Stddev	.0014012	.0014551	.5607	.04804	.07076	.0004444
%RSD	47.77697	.2818789	.5386086	.2519903	.2041632	1.028152
#1	.0018826	.5178045	104.7092	19.09914	34.68168	.0435100
#2	.0045238	.5149634	103.6032	19.01077	34.57972	.0427115
#3	.0023920	.5158382	103.9957	19.08764	34.71569	.0434488

Elem	Sr4077
Units	ppm
Avg	.4708275
Stddev	.0014019
%RSD	.2977458
#1	.4720879
#2	.4710770
#3	.4693177

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3286.890	77340.65	18300.46	2310.957	3598.475
Stddev	9.756	258.10	20.87	10.637	12.490
%RSD	.2968164	.3337145	.1140576	.4602871	.3470786
#1	3297.572	77045.82	18282.22	2298.687	3609.473
#2	3284.648	77525.74	18295.93	2317.575	3601.054
#3	3278.450	77450.41	18323.23	2316.608	3584.897

Sample Name: P4836-01 Acquired: 11/14/2024 22:54:10 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0198480	.0017581	.1036099	-.004007	.0103438	38.54398
Stddev	.0008289	.0010920	.0002223	.002470	.0013216	.13922
%RSD	4.176135	62.11231	.2145535	61.64998	12.77684	.3612058
#1	.0204610	.0028107	.1038510	-.001243	.0089499	38.38769
#2	.0189050	.0006306	.1034131	-.004779	.0115788	38.65474
#3	.0201782	.0018328	.1035655	-.005998	.0105028	38.58951
Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2922927	.0035549	.0051856	69.07054	.0491667	.0224973
Stddev	.0019806	.0000090	.0000962	.35380	.0003028	.0000928
%RSD	.6776130	.2536505	1.854350	.5122283	.6159400	.4124122
#1	.2900840	.0035548	.0052896	68.84462	.0488523	.0223989
#2	.2939108	.0035640	.0050998	68.88872	.0491913	.0225099
#3	.2928835	.0035460	.0051675	69.47827	.0494564	.0225832
Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5611903	46.90544	.7793746	15.11653	.0693383	.0013512
Stddev	.0008431	.26357	.0051322	.06939	.0005187	.0000830
%RSD	.1502435	.5619179	.6585006	.4590545	.7480999	6.140230
#1	.5621634	46.66744	.7739913	15.08227	.0688091	.0012618
#2	.5607329	46.86017	.7799204	15.07093	.0698458	.0014258
#3	.5606748	47.18871	.7842120	15.19639	.0693600	.0013659
Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.29678	.0539317	1.408444	15.44624	.0651425	.0837360
Stddev	.18523	.0007432	.010586	.04495	.0006484	.0002251
%RSD	.7043645	1.377959	.7516328	.2910403	.9953361	.2688274
#1	26.14350	.0531168	1.396278	15.39539	.0649052	.0837955
#2	26.50260	.0541063	1.415558	15.48068	.0646461	.0839254
#3	26.24425	.0545721	1.413496	15.46266	.0658761	.0834871

Sample Name: P4836-01 Acquired: 11/14/2024 22:54:10 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	-.004148	.4401046	F 58.99761	2.022569	F 27.89676	.0199903
Stddev	.000905	.0028790	.10263	.004430	.08222	.0002623
%RSD	21.81347	.6541600	.1739611	.2190340	.2947219	1.312101
#1	-.003277	.4368546	58.88981	2.026215	27.94810	.0198508
#2	-.005083	.4411241	59.09415	2.023855	27.94025	.0198272
#3	-.004083	.4423351	59.00885	2.017639	27.80193	.0202929

Elem	Sr4077
Units	ppm
Avg	.2300478
Stddev	.0015466
%RSD	.6722935
#1	.2283237
#2	.2313131
#3	.2305064

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2720.266	62334.18	14575.66	1927.441	3957.956
Stddev	6.696	128.54	15.58	5.759	12.911
%RSD	.2461614	.2062147	.1068570	.2988022	.3262131
#1	2721.224	62323.96	14593.27	1928.354	3963.685
#2	2726.432	62211.06	14563.68	1921.280	3967.012
#3	2713.143	62467.53	14570.03	1932.689	3943.172

Sample Name: CCV10 Acquired: 11/14/2024 22:58:21 Type: Unk
Method: NON EPA-6010-200.7(v2471) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.793841	4.851308	4.802063	4.739057	4.776082	9.606694	9.848437
Stddev	.005643	.049033	.004106	.015664	.011530	.020707	.023524
%RSD	.1177077	1.010714	.0854962	.3305275	.2414175	.2155521	.2388635
#1	4.792050	4.796033	4.799519	4.721154	4.762814	9.629252	9.871823
#2	4.800161	4.889562	4.799870	4.745774	4.781765	9.588549	9.824777
#3	4.789310	4.868329	4.806799	4.750241	4.783668	9.602280	9.848710
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2452848	2.396953	23.95877	.9742303	2.402233	1.224263	4.864407
Stddev	.0007239	.002127	.14874	.0021487	.000591	.002049	.028544
%RSD	.2951119	.0887190	.6208224	.2205552	.0246122	.1673563	.5867864
#1	.2460367	2.395698	23.83206	.9766986	2.402839	1.222717	4.857481
#2	.2452252	2.395752	23.92172	.9727778	2.401658	1.223485	4.839964
#3	.2445926	2.399408	24.12254	.9732145	2.402201	1.226587	4.895776
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.426851	23.22052	2.410757	1.215963	25.20755	2.418555	2.714172
Stddev	.010922	.15597	.000184	.003830	.10069	.015090	.018170
%RSD	.4500300	.6717054	.0076170	.3149903	.3994515	.6239103	.6694471
#1	2.419218	23.14768	2.410941	1.220371	25.32137	2.414830	2.731102
#2	2.421975	23.11429	2.410573	1.213451	25.13009	2.405677	2.716438
#3	2.439362	23.39959	2.410758	1.214065	25.17118	2.435158	2.694975
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.38238	4.863641	4.833172	4.771654	4.820850	4.854861	4.975156
Stddev	.05077	.009030	.014391	.007705	.014121	.032115	.019890
%RSD	.2082292	.1856600	.2977572	.1614696	.2929190	.6615099	.3997869
#1	24.41000	4.873013	4.817323	4.764146	4.823450	4.834940	4.953569
#2	24.32379	4.862913	4.836771	4.771275	4.805609	4.837733	4.979160
#3	24.41337	4.854997	4.845422	4.779541	4.833490	4.891910	4.992739

Sample Name: CCV10 Acquired: 11/14/2024 22:58:21 Type: Unk
Method: NON EPA-6010-200.7(v2471) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.687711	4.800246	4.944113
Stddev	.008466	.014437	.031037
%RSD	.1805979	.3007526	.6277642
#1	4.680302	4.815200	4.915995
#2	4.685891	4.786388	4.938927
#3	4.696938	4.799151	4.977416

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2546.433	57231.60	12769.70	1804.620	4021.774
Stddev	6.090	174.04	46.65	15.633	5.647
%RSD	.2391401	.3040957	.3653526	.8662739	.1404119
#1	2550.216	57047.11	12717.65	1786.569	4020.903
#2	2549.674	57392.85	12807.75	1813.770	4027.806
#3	2539.408	57254.85	12783.70	1813.520	4016.613

Sample Name: CCB10 Acquired: 11/14/2024 23:03:04 Type: Unk
Method: NON EPA-6010-200.7(v2471) 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	.0006962	-.000860	.0002183	-.000039	.0002112	.0008968	-.000752
Stddev	.0006896	.000459	.0005531	.001655	.0001740	.0032640	.000437
%RSD	99.05018	53.40083	253.2999	4247.106	82.41105	363.9753	58.03704
#1	.0014923	-.000938	-.000415	-.001686	.0004121	.0045791	-.001247
#2	.0002836	-.000367	.000608	.001624	.0001079	-.000248	-.000418
#3	.0003127	-.001275	.000461	-.000055	.0001136	-.001640	-.000593
Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000172	-.000013	.0116989	-.000137	.0000951	.0004059	.0015937
Stddev	.0000239	.000069	.0044045	.000317	.0001366	.0002770	.0008594
%RSD	138.8375	519.8561	37.64850	231.2412	143.6090	68.23730	53.92361
#1	-.000010	-.000066	.0089045	-.000297	-.000062	.0005926	.0016710
#2	.000027	-.000038	.0094161	-.000342	.000169	.0000877	.0006983
#3	.000035	.000064	.0167762	.000228	.000179	.0005375	.0024117
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000681	.0123170	.0004950	-.000168	.2503729	.0000531	.0008311
Stddev	.0000494	.0080436	.0002349	.000077	.0363663	.0010300	.0003569
%RSD	72.50060	65.30484	47.44944	45.78569	14.52486	1939.732	42.93686
#1	.0001241	.0140107	.0007240	-.000095	.2084317	.0004075	.0007380
#2	.0000307	.0035614	.0002546	-.000249	.2695509	-.001107	.0005301
#3	.0000495	.0193789	.0005065	-.000160	.2731360	.000859	.0012253
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2583448	.0031677	.0001721	.0030815	.0001730	.0088779	.0001672
Stddev	.0320217	.0005023	.0002491	.0008437	.0001233	.0007731	.0016061
%RSD	12.39494	15.85641	144.7185	27.38078	71.30052	8.708194	960.3302
#1	.2260438	.0035018	.0003163	.0025919	.0000306	.0085297	-.001086
#2	.2589110	.0034111	.0003156	.0025969	.0002454	.0097639	.001978
#3	.2900796	.0025900	-.000116	.0040558	.0002429	.0083402	-.000390

Sample Name: CCB10 Acquired: 11/14/2024 23:03:04 Type: Unk
Method: NON EPA-6010-200.7(v2471) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

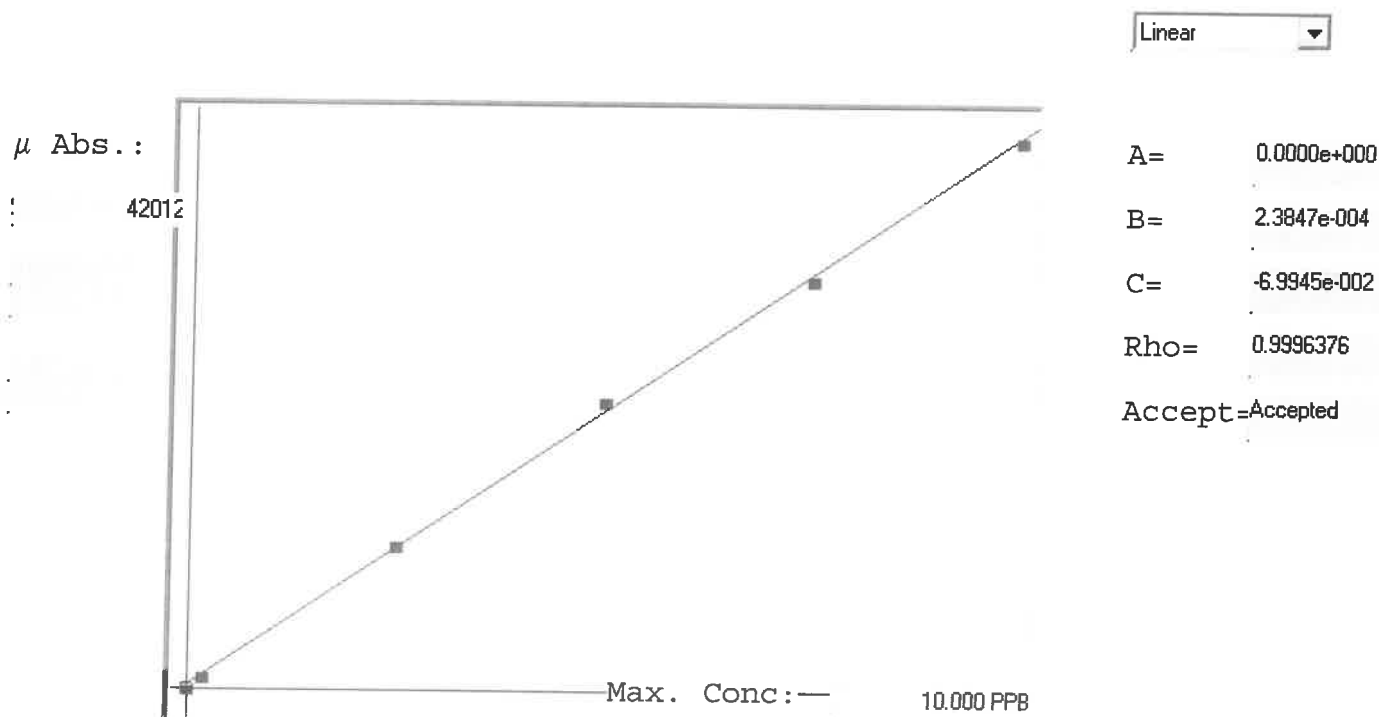
Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0040160	.0001062	.0003117
Stddev	.0023073	.0002879	.0000180
%RSD	57.45155	271.1345	5.767848
#1	.0017564	.0000375	.0003261
#2	.0039235	.0004223	.0003175
#3	.0063682	-.000141	.0002916

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2670.141	60302.43	13004.29	1870.368	4529.366
Stddev	8.570	141.85	72.35	11.936	11.763
%RSD	.3209584	.2352392	.5563656	.6381582	.2597066
#1	2660.440	60465.81	12968.63	1883.729	4516.603
#2	2673.298	60230.89	12956.69	1866.618	4531.724
#3	2676.684	60210.58	13087.55	1860.758	4539.771

LB133424

7471B

INSTRUMENT ID: CV1



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	%D
0.0	0.000	-0.078	-0.078	-32	0.000	-32					-
0.2	0.200	0.162	-0.038	972	0.0 %	972					-19
2.5	2.500	2.561	0.061	11034	0.0 %	11034					2
5.0	5.000	5.194	0.194	22073	0.0 %	22073					4
7.5	7.500	7.412	-0.088	31374	0.0 %	31374					-1
10.0	10.000	9.949	-0.051	42012	0.0 %	42012					-1

LB133424 INSTRUMENT ID : CV1

Method: 7471B

Operator: Admin

Date of Analysis: 13 Nov 2024 11:34:08

Sample ID	Extended ID	μ Abs.	Conc.	Std Conc	Method	Units	Date	Type	Type
0.0 - 1	50	-32	-	0.00007471B	-7471B	PPB	13 Nov 2024 11:53:11	S	Std
0.2 - 1	50.2	972	-	0.20007471B	-7471B	PPB	13 Nov 2024 11:55:28	S	Std
2.5 - 1	52.15	11034	-	2.50007471B	-7471B	PPB	13 Nov 2024 11:57:45	S	Std
5.0 - 1	55	22073	-	5.00007471B	-7471B	PPB	13 Nov 2024 12:00:02	S	Std
7.5 - 1	57.5	31374	-	7.50007471B	-7471B	PPB	13 Nov 2024 12:02:20	S	Std
10.0 - 1	510	42012	-	10.00007471B	-7471B	PPB	13 Nov 2024 12:11:14	S	Std
ICV84 - 1	ICV84	16280	3.8124	-7471B	-7471B	PPB	13 Nov 2024 12:14:01	U	SMPL
ICB84 - 1	ICB84	177	-0.0277	-7471B	-7471B	PPB	13 Nov 2024 12:18:50	U	SMPL
CCV79 - 1	CCV79	20777	4.8848	-7471B	-7471B	PPB	13 Nov 2024 12:21:04	U	SMPL
CCB79 - 1	CCB79	-51	-0.0821	-7471B	-7471B	PPB	13 Nov 2024 12:23:19	U	SMPL
CRA - 1	CRA	1142	0.2024	-7471B	-7471B	PPB	13 Nov 2024 12:30:40	U	SMPL
HighStd - 1	HighStd	39793	9.4195	-7471B	-7471B	PPB	13 Nov 2024 12:32:55	U	SMPL
ChkStd - 1	ChkStd	26337	6.2107	-7471B	-7471B	PPB	13 Nov 2024 12:35:09	U	SMPL
PB164947BL - 1	PBS	59	-0.0559	-7471B	-7471B	PPB	13 Nov 2024 12:40:12	U	SMPL
PB164947BS - 1	LCCCCCSS	15004	3.5081	-7471B	-7471B	PPB	13 Nov 2024 12:42:27	U	SMPL
P4807-01 - 1	TP-7	332	0.0092	-7471B	-7471B	PPB	13 Nov 2024 12:44:43	U	SMPL
P4807-01DUP - 1	TP-7DUP	392	0.0235	-7471B	-7471B	PPB	13 Nov 2024 12:47:02	U	SMPL
P4807-01MS - 1	TP-7MS	15251	3.5670	-7471B	-7471B	PPB	13 Nov 2024 12:49:21	U	SMPL
P4807-01MSD - 1	TP-7MSD	15621	3.6552	-7471B	-7471B	PPB	13 Nov 2024 12:51:39	U	SMPL
P4807-05 - 1	BF-F14	-212	-0.1205	-7471B	-7471B	PPB	13 Nov 2024 12:53:58	U	SMPL
CCV80 - 1	CCV80	19534	4.5884	-7471B	-7471B	PPB	13 Nov 2024 12:58:48	U	SMPL
CCB80 - 1	CCB80	-54	-0.0828	-7471B	-7471B	PPB	13 Nov 2024 13:01:05	U	SMPL
P4807-09 - 1	BF-F13	67	-0.0540	-7471B	-7471B	PPB	13 Nov 2024 13:03:24	U	SMPL
P4807-13 - 1	TP-6	239	-0.0130	-7471B	-7471B	PPB	13 Nov 2024 13:05:40	U	SMPL
P4809-01 - 1	MH-5	4912	1.1014	-7471B	-7471B	PPB	13 Nov 2024 13:07:55	U	SMPL
P4811-01 - 1	RB24008	2177	0.4492	-7471B	-7471B	PPB	13 Nov 2024 13:10:10	U	SMPL
P4812-01 - 1	RBR200035	63	-0.0549	-7471B	-7471B	PPB	13 Nov 2024 13:12:29	U	SMPL
P4816-01 - 1	331	2782	0.5935	-7471B	-7471B	PPB	13 Nov 2024 13:14:46	U	SMPL
P4821-01 - 1	BP-F-24	149	-0.0344	-7471B	-7471B	PPB	13 Nov 2024 13:17:03	U	SMPL
P4821-05 - 1	BP-F-2	195	-0.0234	-7471B	-7471B	PPB	13 Nov 2024 13:19:22	U	SMPL
P4822-02 - 1	SOIL-1	3104	0.6703	-7471B	-7471B	PPB	13 Nov 2024 13:21:38	U	SMPL
P4822-04 - 1	SOIL-2	3835	0.8446	-7471B	-7471B	PPB	13 Nov 2024 13:23:53	U	SMPL
CCV81 - 1	CCV81	20546	4.8297	-7471B	-7471B	PPB	13 Nov 2024 13:34:05	U	SMPL
CCB81 - 1	CCB81	101	-0.0459	-7471B	-7471B	PPB	13 Nov 2024 13:39:20	U	SMPL
P4822-06 - 1	SOIL-3	4431	0.9867	-7471B	-7471B	PPB	13 Nov 2024 13:41:36	U	SMPL
P4822-08 - 1	SOIL-4	4310	0.9579	-7471B	-7471B	PPB	13 Nov 2024 13:43:51	U	SMPL
P4822-10 - 1	SOIL-5	2011	0.4096	-7471B	-7471B	PPB	13 Nov 2024 13:46:08	U	SMPL
P4822-12 - 1	SOIL-6	2286	0.4752	-7471B	-7471B	PPB	13 Nov 2024 13:48:26	U	SMPL
P4823-01 - 1	MH-4	2635	0.5584	-7471B	-7471B	PPB	13 Nov 2024 13:50:43	U	SMPL
P4807-01LX5 - 1		-124	-0.0995	-7471B	-7471B	PPB	13 Nov 2024 13:53:00	U	SMPL
P4807-01A - 1		12339	2.8726	-7471B	-7471B	PPB	13 Nov 2024 14:00:45	U	SMPL
CCV82 - 1	CCV82	20506	4.8201	-7471B	-7471B	PPB	13 Nov 2024 14:05:44	U	SMPL
CCB82 - 1	CCB82	-65	-0.0854	-7471B	-7471B	PPB	13 Nov 2024 14:08:02	U	SMPL

SOP ID : M3050B-Digestion-20

SDG No : N/A

Matrix : SOIL

Pipette 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 #2 2. N/A

Start Digest Date: 11/13/2024 Time : 09:10 Temp : 96 °C

End Digest Date: 11/13/2024 Time : 11:20 Temp : 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. #2

Dig Technician Signature: *JGP*

Supervisor Signature: *ST*

Temp : 1. 96°C 2. N/A

Standardized Name	MLS USED	STD REF. # FROM LOG
LFS-1	1.00	M6000
LFS-2	1.00	M6009
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
1:1 HNO3	10.00	MP83122
Conc. HNO3	5.00	M6120
30% H2O2	3.00	M5634
Conc. HCL	10.00	M6118
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK #2 CELL #34: 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/13/24 12:00	<i>JGP Met dig</i>	<i>ST (metals lab)</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
P4821-01	BP-F-24	N/A	2.35	100	Brown	Yellow	Medium	N/A	N/A	1
P4821-05	BP-F-2	N/A	2.40	100	Brown	Yellow	Medium	N/A	N/A	2
P4822-02	SOIL-1	N/A	2.32	100	LightBrown	Yellow	Medium	N/A	N/A	3
P4822-02MS	SOIL-1MS	N/A	2.27	100	LightBrown	Yellow	Medium	N/A	M6000,M6009	5
P4822-02MSD	SOIL-1MSD	N/A	2.34	100	LightBrown	Yellow	Medium	N/A	M6000,M6009	6
P4822-02DUP	SOIL-1DUP	N/A	2.44	100	LightBrown	Yellow	Medium	N/A	N/A	4
P4822-04	SOIL-2	N/A	2.43	100	LightBrown	Yellow	Medium	N/A	N/A	7
P4822-06	SOIL-3	N/A	2.42	100	LightBrown	Yellow	Medium	N/A	N/A	8
P4822-08	SOIL-4	N/A	2.37	100	LightBrown	Yellow	Medium	N/A	N/A	9
P4822-10	SOIL-5	N/A	2.39	100	LightBrown	Yellow	Medium	N/A	N/A	10
P4822-12	SOIL-6	N/A	2.41	100	LightBrown	Yellow	Medium	N/A	N/A	11
P4823-01	MH-4	N/A	2.39	100	Brown	Yellow	Medium	N/A	N/A	12
PB164935BL	PBS935	N/A	2.34	100	Colorless	Colorless	Fine	N/A	N/A	13
PB164935BS	LCS935	N/A	2.34	100	Colorless	Colorless	Fine	N/A	M6000,M6009	14

WORKLIST(Hardcopy Internal Chain)

Worklist Name : PB164935

Worklist ID : 185389

Department : Digestion

Date : 11-13-2024 08:33:10

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4821-01	BP-F-24	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L31	11/12/2024	6010D
P4821-05	BP-F-2	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L31	11/12/2024	6010D
P4822-02	SOIL-1	Solid	Metals ICP-TAL	Cool 4 deg C	BAPS03	L21	11/12/2024	6010D
P4822-04	SOIL-2	Solid	Metals ICP-TAL	Cool 4 deg C	BAPS03	L21	11/12/2024	6010D
P4822-06	SOIL-3	Solid	Metals ICP-TAL	Cool 4 deg C	BAPS03	L21	11/12/2024	6010D
P4822-08	SOIL-4	Solid	Metals ICP-TAL	Cool 4 deg C	BAPS03	L21	11/12/2024	6010D
P4822-10	SOIL-5	Solid	Metals ICP-TAL	Cool 4 deg C	BAPS03	L21	11/12/2024	6010D
P4822-12	SOIL-6	Solid	Metals ICP-TAL	Cool 4 deg C	BAPS03	L21	11/12/2024	6010D
P4823-01	MH-4	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L21	11/12/2024	6010D

Date/Time

11/13/24 8:45

Raw Sample Received by:

Raw Sample Relinquished by:

JP (Mutai G)
JP (Mutai G)

Date/Time

11/13/24 12:20

Raw Sample Received by:

Raw Sample Relinquished by:

JP (Mutai G)
JP (Mutai G)

SOP ID : M7471B-Mercury-18

SDG No : NA

Matrix : SOIL

Pipette 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: 11/13/2024 Time : 09:25 Temp : 94 °C

End Digest Date: 11/13/2024 Time : 09:55 Temp : 94 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: *MB*

Supervisor Signature: *12*

Temp : 1. 94°C 2. N/A

Standardized Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP83238
CCV	30mL	MP83240
CRA	30mL	MP83242
Blank Spike	0.48mL	MP83231
Matrix Spike	0.48mL	MP83231

Chemical Used	ML/SAMPLE USED	Lot Number
AQUA REGIA	1.5mL	MP83235
KMnO ₄ (5%)	4.5mL	MP83208
Hydroxylamine HCL (12%)	2.0mL	MP83210
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	MP83232
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP83233
2.5 ppb	S2.5	30mL	MP83234
5.0 ppb	S5.0	30mL	MP83235
7.5 ppb	S7.5	30mL	MP83236
10.0 ppb	S10.0	30mL	MP83237
ICV	ICV	30mL	MP83238
ICB	ICB	30mL	MP83239
CCV	CCV	30mL	MP83240
CCB	CCB	30mL	MP83241
CRI	CRI	30mL	MP83242
CHK STD	CHK STD	30mL	MP83243

Extraction Conformance/Non-Conformance Comments:

N/A		
Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/13/24 @ 10:55	<i>MB - Dig. Lab</i>	<i>MB - Dig. Lab</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Comment	Prep Pos
P4807-01	TP-7	0.56	35	NA	N/A	3-1
P4807-01DUP	TP-7DUP	0.55	35	NA	N/A	2
P4807-01MS	TP-7MS	0.56	35	NA	MP83231	3
P4807-01MSD	TP-7MSD	0.53	35	NA	MP83231	4
P4807-05	BF-F14	0.51	35	NA	N/A	5
P4807-09	BF-F13	0.52	35	NA	N/A	6
P4807-13	TP-6	0.59	35	NA	N/A	7
P4809-01	MH-5	0.52	35	NA	N/A	8
P4811-01	RB24008	0.53	35	NA	N/A	9
P4812-01	RBR200035	0.57	35	NA	N/A	10
P4816-01	331	0.50	35	NA	N/A	11
P4821-01	BP-F-24	0.54	35	NA	N/A	12
P4821-05	BP-F-2	0.54	35	NA	N/A	13
P4822-02	SOIL-1	0.54	35	NA	N/A	14
P4822-04	SOIL-2	0.56	35	NA	N/A	15
P4822-06	SOIL-3	0.52	35	NA	N/A	16
P4822-08	SOIL-4	0.57	35	NA	N/A	17
P4822-10	SOIL-5	0.54	35	NA	N/A	18
P4822-12	SOIL-6	0.52	35	NA	N/A	19
P4823-01	MH-4	0.53	35	NA	N/A	20
PB164947BL	PBS947	0.54	35	NA	N/A	21
PB164947BS	LCS947	0.52	35	NA	MP83231	22

WORKLIST(Hardcopy Internal Chain)

WorkList Name : 111324_7471

WorkList ID : 185392

Department : Digestion

Date : 11-13-2024 08:35:39

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4807-01	TP-7	Solid	Mercury	Cool 4 deg C	PSEG03	L21	11/09/2024	7471B
P4807-05	BF-F14	Solid	Mercury	Cool 4 deg C	PSEG03	L21	11/09/2024	7471B
P4807-09	BF-F13	Solid	Mercury	Cool 4 deg C	PSEG03	L21	11/09/2024	7471B
P4807-13	TP-6	Solid	Mercury	Cool 4 deg C	PSEG03	L21	11/09/2024	7471B
P4809-01	MH-5	Solid	Mercury	Cool 4 deg C	PSEG03	L21	11/09/2024	7471B
P4811-01	RB24008	Solid	Mercury	Cool 4 deg C	PSEG03	L41	11/11/2024	7471B
P4812-01	RBR200035	Solid	Mercury	Cool 4 deg C	PSEG03	L31	11/11/2024	7471B
P4816-01	331	Solid	Mercury	Cool 4 deg C	PSEG03	L41	11/11/2024	7471B
P4821-01	BP-F-24	Solid	Mercury	Cool 4 deg C	PSEG03	L31	11/11/2024	7471B
P4821-05	BP-F-2	Solid	Mercury	Cool 4 deg C	PSEG03	L31	11/12/2024	7471B
P4822-02	SOIL-1	Solid	Mercury	Cool 4 deg C	PSEG03	L31	11/12/2024	7471B
P4822-04	SOIL-2	Solid	Mercury	Cool 4 deg C	BAPS03	L21	11/12/2024	7471B
P4822-06	SOIL-3	Solid	Mercury	Cool 4 deg C	BAPS03	L21	11/12/2024	7471B
P4822-08	SOIL-4	Solid	Mercury	Cool 4 deg C	BAPS03	L21	11/12/2024	7471B
P4822-10	SOIL-5	Solid	Mercury	Cool 4 deg C	BAPS03	L21	11/12/2024	7471B
P4822-12	SOIL-6	Solid	Mercury	Cool 4 deg C	BAPS03	L21	11/12/2024	7471B
P4823-01	MH-4	Solid	Mercury	Cool 4 deg C	PSEG03	L21	11/12/2024	7471B

Date/Time

11/13/24 8:55

Raw Sample Received by:

MB - Dig - Lab

Raw Sample Relinquished by:

MB - Dig - Lab

Date/Time

11/13/24 9:35

Raw Sample Received by:

MB - Dig - Lab

Raw Sample Relinquished by:

MB - Dig - Lab

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/13/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 16:45
In Date: 11/12/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 11/13/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB133408

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
P4810-01	WASTE	1	1.15	8.80	9.95	8.23	80.5	
P4810-02	VOC	2	1.15	8.82	9.97	8.65	85.0	
P4810-03	1	3	1.15	8.43	9.58	7.84	79.4	
P4810-04	2	4	1.16	8.80	9.96	8.41	82.4	
P4810-05	3	5	1.16	8.51	9.67	8.17	82.4	
P4810-06	4	6	1.15	8.82	9.97	8.46	82.9	
P4810-07	5	7	1.16	8.45	9.61	8.2	83.3	
P4820-01	CO-SIAC-20	8	1.18	8.42	9.6	9.41	97.7	
P4821-01	BP-F-24	9	1.19	8.57	9.76	8.77	88.4	
P4821-02	BP-F-24-EPH	10	1.15	8.52	9.67	8.62	87.7	
P4821-03	BP-F-24-VOC	11	1.12	8.76	9.88	8.83	88.0	
P4821-05	BP-F-2	12	1.16	8.51	9.67	8.7	88.6	
P4821-06	BP-F-2-EPH	13	1.15	8.81	9.96	9.28	92.3	
P4821-07	BP-F-2-VOC	14	1.12	8.75	9.87	8.77	87.4	
P4822-01	SOIL-1	18	1.16	8.48	9.64	9.14	94.1	
P4822-02	SOIL-1	19	1.15	8.50	9.65	9.00	92.4	
P4822-03	SOIL-2	20	1.18	8.57	9.75	9.05	91.8	
P4822-04	SOIL-2	21	1.15	8.74	9.89	8.99	89.7	
P4822-05	SOIL-3	22	1.13	8.39	9.52	8.89	92.5	
P4822-06	SOIL-3	23	1.16	8.69	9.85	9.1	91.4	
P4822-07	SOIL-4	24	1.17	8.50	9.67	9.12	93.5	
P4822-08	SOIL-4	25	1.14	8.62	9.76	9.15	92.9	
P4822-09	SOIL-5	26	1.11	8.77	9.88	8.91	88.9	
P4822-10	SOIL-5	27	1.16	8.63	9.79	9.06	91.5	
P4822-11	SOIL-6	28	1.17	8.60	9.77	8.71	87.7	
P4822-12	SOIL-6	29	1.13	8.70	9.83	9.07	91.3	
P4823-01	MH-4	15	1.15	8.64	9.79	8.86	89.2	
P4823-02	MH-4-EPH	16	1.17	8.54	9.71	8.88	90.3	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/13/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 16:45
In Date: 11/12/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 11/13/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB133408

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
P4823-03	MH-4-VOC	17	1.17	8.58	9.75	8.72	88.0	

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

WORKLIST(Hardcopy Internal Chain)

JB133408

WorkList Name : %1-111224

WorkList ID : 185348

Department : Wet-Chemistry

Date : 11-12-2024 08:02:13

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4810-01	WASTE	Solid	Percent Solids	Cool 4 deg C	SCIA01	L11	11/11/2024	Chemtech -SO
P4810-02	VOC	Solid	Percent Solids	Cool 4 deg C	SCIA01	L11	11/11/2024	Chemtech -SO
P4810-03	1	Solid	Percent Solids	Cool 4 deg C	SCIA01	L11	11/11/2024	Chemtech -SO
P4810-04	2	Solid	Percent Solids	Cool 4 deg C	SCIA01	L11	11/11/2024	Chemtech -SO
P4810-05	3	Solid	Percent Solids	Cool 4 deg C	SCIA01	L11	11/11/2024	Chemtech -SO
P4810-06	4	Solid	Percent Solids	Cool 4 deg C	SCIA01	L11	11/11/2024	Chemtech -SO
P4810-07	5	Solid	Percent Solids	Cool 4 deg C	SCIA01	L11	11/11/2024	Chemtech -SO
P4820-01	CO-SIAC-20	Solid	Percent Solids	Cool 4 deg C	SCIA01	L11	11/11/2024	Chemtech -SO
P4821-01	BP-F-24	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/12/2024	Chemtech -SO
P4821-02	BP-F-24-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	11/12/2024	Chemtech -SO
P4821-03	BP-F-24-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	11/12/2024	Chemtech -SO
P4821-05	BP-F-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	11/12/2024	Chemtech -SO
P4821-06	BP-F-2-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	11/12/2024	Chemtech -SO
P4821-07	BP-F-2-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	11/12/2024	Chemtech -SO
P4822-01	SOIL-1	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4822-02	SOIL-1	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4822-03	SOIL-2	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4822-04	SOIL-2	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4822-05	SOIL-3	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4822-06	SOIL-3	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4822-07	SOIL-4	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO

Date/Time 11-12-24 15:35

Raw Sample Received by: JB WLC

Raw Sample Relinquished by: JB WLC

Date/Time 11-12-24

Raw Sample Received by: JB WLC

Raw Sample Relinquished by: JB WLC

WORKLIST(Hardcopy Internal Chain)

1333408

WorkList Name : %1-111224

WorkList ID : 185348

Department : Wet-Chemistry

Date : 11-12-2024 08:02:13

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4822-08	SOIL-4	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4822-09	SOIL-5	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4822-10	SOIL-5	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4822-11	SOIL-6	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4822-12	SOIL-6	Solid	Percent Solids	Cool 4 deg C	BAPS03	L21	11/12/2024	Chemtech -SO
P4823-01	MH-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/12/2024	Chemtech -SO
P4823-02	MH-4-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/12/2024	Chemtech -SO
P4823-03	MH-4-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	11/12/2024	Chemtech -SO

Date/Time 11-12-24 15:35
Raw Sample Received by: SS WOL
Raw Sample Relinquished by: BS CETA- (CCH)

Date/Time 11-12-24 17:00
Raw Sample Received by: BS CETA- (CCH)
Raw Sample Relinquished by: SS WOL

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133424

Review By	Review On
Supervise By	Supervise On
STD. NAME	STD REF.#
ICAL Standard	MP83232,MP83233,MP83234,MP83235,MP83236,MP83237
ICV Standard	MP83238
CCV Standard	MP83240
ICSA Standard	
CRI Standard	MP83242
LCS Standard	
Chk Standard	MP83239,MP83241,MP83243,MP83245

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	11/13/24 11:53		Mohan	OK
2	S0.2	S0.2	CAL2	11/13/24 11:55		Mohan	OK
3	S2.5	S2.5	CAL3	11/13/24 11:57		Mohan	OK
4	S5	S5	CAL4	11/13/24 12:00		Mohan	OK
5	S7.5	S7.5	CAL5	11/13/24 12:02		Mohan	OK
6	S10	S10	CAL6	11/13/24 12:11		Mohan	OK
7	ICV84	ICV84	ICV	11/13/24 12:14		Mohan	OK
8	ICB84	ICB84	ICB	11/13/24 12:18		Mohan	OK
9	CCV79	CCV79	CCV	11/13/24 12:21		Mohan	OK
10	CCB79	CCB79	CCB	11/13/24 12:23		Mohan	OK
11	CRA	CRA	CRDL	11/13/24 12:30		Mohan	OK
12	HighStd	HighStd	HIGH STD	11/13/24 12:32		Mohan	OK
13	ChkStd	ChkStd	SAM	11/13/24 12:35		Mohan	OK
14	PB164947BL	PB164947BL	MB	11/13/24 12:40		Mohan	OK
15	PB164947BS	PB164947BS	LCS	11/13/24 12:42		Mohan	OK
16	P4807-01	TP-7	SAM	11/13/24 12:44		Mohan	OK
17	P4807-01DUP	TP-7DUP	DUP	11/13/24 12:47		Mohan	OK
18	P4807-01MS	TP-7MS	MS	11/13/24 12:49		Mohan	OK

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133424

Review By	Review On
Supervise By	Supervise On
STD. NAME	STD REF.#
ICAL Standard	MP83232,MP83233,MP83234,MP83235,MP83236,MP83237
ICV Standard	MP83238
CCV Standard	MP83240
ICSA Standard	
CRI Standard	MP83242
LCS Standard	
Chk Standard	MP83239,MP83241,MP83243,MP83245

19	P4807-01MSD	TP-7MSD	MSD	11/13/24 12:51		Mohan	OK
20	P4807-05	BF-F14	SAM	11/13/24 12:53		Mohan	OK
21	CCV80	CCV80	CCV	11/13/24 12:58		Mohan	OK
22	CCB80	CCB80	CCB	11/13/24 13:01		Mohan	OK
23	P4807-09	BF-F13	SAM	11/13/24 13:03		Mohan	OK
24	P4807-13	TP-6	SAM	11/13/24 13:05		Mohan	OK
25	P4809-01	MH-5	SAM	11/13/24 13:07		Mohan	OK
26	P4811-01	RB24008	SAM	11/13/24 13:10		Mohan	OK
27	P4812-01	RBR200035	SAM	11/13/24 13:12		Mohan	OK
28	P4816-01	331	SAM	11/13/24 13:14		Mohan	OK
29	P4821-01	BP-F-24	SAM	11/13/24 13:17		Mohan	OK
30	P4821-05	BP-F-2	SAM	11/13/24 13:19		Mohan	OK
31	P4822-02	SOIL-1	SAM	11/13/24 13:21		Mohan	OK
32	P4822-04	SOIL-2	SAM	11/13/24 13:23		Mohan	OK
33	CCV81	CCV81	CCV	11/13/24 13:34		Mohan	OK
34	CCB81	CCB81	CCB	11/13/24 13:39		Mohan	OK
35	P4822-06	SOIL-3	SAM	11/13/24 13:41		Mohan	OK
36	P4822-08	SOIL-4	SAM	11/13/24 13:43		Mohan	OK
37	P4822-10	SOIL-5	SAM	11/13/24 13:46		Mohan	OK
38	P4822-12	SOIL-6	SAM	11/13/24 13:48		Mohan	OK

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133424

Review By	Review On
Supervise By	Supervise On
STD. NAME	STD REF.#
ICAL Standard	MP83232,MP83233,MP83234,MP83235,MP83236,MP83237
ICV Standard	MP83238
CCV Standard	MP83240
ICSA Standard	
CRI Standard	MP83242
LCS Standard	
Chk Standard	MP83239,MP83241,MP83243,MP83245

39	P4823-01	MH-4	SAM	11/13/24 13:50		Mohan	OK
40	P4807-01L	TP-7L	SD	11/13/24 13:53		Mohan	OK
41	P4807-01A	TP-7A	PS	11/13/24 14:00		Mohan	OK
42	CCV82	CCV82	CCV	11/13/24 14:05		Mohan	OK
43	CCB82	CCB82	CCB	11/13/24 14:08		Mohan	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133457

Review By	jaswal	Review On	11/20/2024 11:57:44 PM
Supervise By	mohan	Supervise On	11/20/2024 11:58:39 PM

STD. NAME	STD REF.#
ICAL Standard	MP83078,MP83079,MP73080,MP83081,MP83082,MP83084
ICV Standard	MP83085
CCV Standard	MP83088
ICSA Standard	MP83086,MP83087
CRI Standard	MP83084
LCS Standard	
Chk Standard	MP83091,MP83092

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	11/14/24 13:33		Kareem	OK
2	S1	S1	CAL2	11/14/24 13:37		Kareem	OK
3	S2	S2	CAL3	11/14/24 13:42		Kareem	OK
4	S3	S3	CAL4	11/14/24 13:46		Kareem	OK
5	S4	S4	CAL5	11/14/24 13:50		Kareem	OK
6	S5	S5	CAL6	11/14/24 13:54		Kareem	OK
7	ICV01	ICV01	ICV	11/14/24 13:58		Kareem	OK
8	LLICV01	LLICV01	LLICV	11/14/24 14:10		Kareem	OK
9	ICB01	ICB01	ICB	11/14/24 14:36		Kareem	OK
10	CRI01	CRI01	CRDL	11/14/24 14:40		Kareem	OK
11	ICSA01	ICSA01	ICSA	11/14/24 14:54		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	11/14/24 15:18		Kareem	OK
13	CCV01	CCV01	CCV	11/14/24 15:22		Kareem	OK
14	CCB01	CCB01	CCB	11/14/24 15:27		Kareem	OK
15	P4756-01	BP-B4	SAM	11/14/24 15:31		Kareem	OK
16	CCV02	CCV02	CCV	11/14/24 15:35		Kareem	OK
17	CCB02	CCB02	CCB	11/14/24 15:40		Kareem	OK
18	PB164797BL	PB164797BL	MB	11/14/24 15:44		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133457

Review By	jaswal	Review On	11/20/2024 11:57:44 PM
Supervise By	mohan	Supervise On	11/20/2024 11:58:39 PM

STD. NAME	STD REF.#
ICAL Standard	MP83078,MP83079,MP73080,MP83081,MP83082,MP83084
ICV Standard	MP83085
CCV Standard	MP83088
ICSA Standard	MP83086,MP83087
CRI Standard	MP83084
LCS Standard	
Chk Standard	MP83091,MP83092

19	PB164797BS	PB164797BS	LCS	11/14/24 15:48	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
20	PB164935BL	PB164935BL	MB	11/14/24 15:52		Kareem	OK
21	PB164935BS	PB164935BS	LCS	11/14/24 15:57	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
22	PB164869TB	PB164869TB	MB	11/14/24 16:01		Kareem	OK
23	PB164869BL	PB164869BL	MB	11/14/24 16:05		Kareem	OK
24	PB164869BS	PB164869BS	LCS	11/14/24 16:09	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
25	PB164880TB	PB164880TB	MB	11/14/24 16:13		Kareem	OK
26	PB164890TB	PB164890TB	MB	11/14/24 16:18		Kareem	OK
27	PB164926BL	PB164926BL	MB	11/14/24 16:22		Kareem	OK
28	CCV03	CCV03	CCV	11/14/24 16:27		Kareem	OK
29	CCB03	CCB03	CCB	11/14/24 16:31		Kareem	OK
30	PB164926BS	PB164926BS	LCS	11/14/24 16:41	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
31	P4768-01	B-3-1	SAM	11/14/24 16:45		Kareem	OK
32	P4768-02	B-3-2	SAM	11/14/24 16:50		Kareem	OK
33	P4768-02DUP	B-3-2DUP	DUP	11/14/24 16:54		Kareem	OK
34	P4768-02L	B-3-2L	SD	11/14/24 16:58		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133457

Review By	jaswal	Review On	11/20/2024 11:57:44 PM
Supervise By	mohan	Supervise On	11/20/2024 11:58:39 PM

STD. NAME	STD REF.#
ICAL Standard	MP83078,MP83079,MP73080,MP83081,MP83082,MP83084
ICV Standard	MP83085
CCV Standard	MP83088
ICSA Standard	MP83086,MP83087
CRI Standard	MP83084
LCS Standard	
Chk Standard	MP83091,MP83092

35	P4768-02MS	B-3-2MS	MS	11/14/24 17:02	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
36	P4768-02MSD	B-3-2MSD	MSD	11/14/24 17:06	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
37	P4768-02A	B-3-2A	PS	11/14/24 17:10	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
38	P4768-03	B-3-3	SAM	11/14/24 17:14		Kareem	OK
39	P4768-04	B-4	SAM	11/14/24 17:18		Kareem	OK
40	CCV04	CCV04	CCV	11/14/24 17:23		Kareem	OK
41	CCB04	CCB04	CCB	11/14/24 17:27		Kareem	OK
42	P4768-05	B-5	SAM	11/14/24 17:31		Kareem	OK
43	P4768-06	B-6-2	SAM	11/14/24 17:35		Kareem	OK
44	P4768-07	B-6-3	SAM	11/14/24 17:39		Kareem	OK
45	P4771-05	P-1	SAM	11/14/24 17:44		Kareem	OK
46	P4771-07	P-2	SAM	11/14/24 17:48		Kareem	OK
47	P4821-01	BP-F-24	SAM	11/14/24 17:52		Kareem	OK
48	P4821-05	BP-F-2	SAM	11/14/24 17:56		Kareem	OK
49	P4822-02	SOIL-1	SAM	11/14/24 18:00		Kareem	OK
50	P4822-02DUP	SOIL-1DUP	DUP	11/14/24 18:04		Kareem	OK
51	P4822-02L	SOIL-1L	SD	11/14/24 18:08		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133457

Review By	jaswal	Review On	11/20/2024 11:57:44 PM
Supervise By	mohan	Supervise On	11/20/2024 11:58:39 PM

STD. NAME	STD REF.#
ICAL Standard	MP83078,MP83079,MP73080,MP83081,MP83082,MP83084
ICV Standard	MP83085
CCV Standard	MP83088
ICSA Standard	MP83086,MP83087
CRI Standard	MP83084
LCS Standard	
Chk Standard	MP83091,MP83092

52	CCV05	CCV05	CCV	11/14/24 18:12		Kareem	OK
53	CCB05	CCB05	CCB	11/14/24 18:17		Kareem	OK
54	P4822-02MS	SOIL-1MS	MS	11/14/24 18:21	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
55	P4822-02MSD	SOIL-1MSD	MSD	11/14/24 18:25	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
56	P4822-02A	SOIL-1A	PS	11/14/24 18:29	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
57	P4822-04	SOIL-2	SAM	11/14/24 18:33		Kareem	OK
58	P4822-06	SOIL-3	SAM	11/14/24 18:37		Kareem	OK
59	P4822-08	SOIL-4	SAM	11/14/24 18:41		Kareem	OK
60	P4822-10	SOIL-5	SAM	11/14/24 18:45		Kareem	OK
61	P4822-12	SOIL-6	SAM	11/14/24 18:50		Kareem	OK
62	P4823-01	MH-4	SAM	11/14/24 18:54		Kareem	OK
63	P4722-05	WC-1(0-6)	SAM	11/14/24 18:58		Kareem	OK
64	CCV06	CCV06	CCV	11/14/24 19:03		Kareem	OK
65	CCB06	CCB06	CCB	11/14/24 19:07		Kareem	OK
66	P4722-10	WC-2(0-6)	SAM	11/14/24 19:11		Kareem	OK
67	P4722-15	WC-3(0-6)	SAM	11/14/24 19:16		Kareem	OK
68	P4722-15DUP	WC-3(0-6)DUP	DUP	11/14/24 19:20		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133457

Review By	jaswal	Review On	11/20/2024 11:57:44 PM
Supervise By	mohan	Supervise On	11/20/2024 11:58:39 PM

STD. NAME	STD REF.#
ICAL Standard	MP83078,MP83079,MP73080,MP83081,MP83082,MP83084
ICV Standard	MP83085
CCV Standard	MP83088
ICSA Standard	MP83086,MP83087
CRI Standard	MP83084
LCS Standard	
Chk Standard	MP83091,MP83092

69	P4722-15L	WC-3(0-6)L	SD	11/14/24 19:25		Kareem	OK
70	P4722-15MS	WC-3(0-6)MS	MS	11/14/24 19:29	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
71	P4722-15MSD	WC-3(0-6)MSD	MSD	11/14/24 19:33	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
72	P4722-15A	WC-3(0-6)A	PS	11/14/24 19:38	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
73	P4799-03	WC-TA2-02-C	SAM	11/14/24 19:42		Kareem	OK
74	P4799-03DUP	WC-TA2-02-CDUP	DUP	11/14/24 19:46		Kareem	OK
75	P4799-03L	WC-TA2-02-CL	SD	11/14/24 19:51		Kareem	OK
76	CCV07	CCV07	CCV	11/14/24 19:55		Kareem	OK
77	CCB07	CCB07	CCB	11/14/24 19:59		Kareem	OK
78	P4799-03MS	WC-TA2-02-CMS	MS	11/14/24 20:03	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
79	P4799-03MSD	WC-TA2-02-CMSD	MSD	11/14/24 20:08	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
80	P4799-03A	WC-TA2-02-CA	PS	11/14/24 20:12	0.1ml of m6010 and m6001 were added to 10ml of the sample	Kareem	OK
81	P4799-07	WC-TA2-03-C	SAM	11/14/24 20:16		Kareem	OK
82	P4799-11	WC-TA1-01-C	SAM	11/14/24 20:21		Kareem	OK
83	P4799-15	WC-TA1-02-C	SAM	11/14/24 20:25		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133457

Review By	jaswal	Review On	11/20/2024 11:57:44 PM
Supervise By	mohan	Supervise On	11/20/2024 11:58:39 PM

STD. NAME	STD REF.#
ICAL Standard	MP83078,MP83079,MP73080,MP83081,MP83082,MP83084
ICV Standard	MP83085
CCV Standard	MP83088
ICSA Standard	MP83086,MP83087
CRI Standard	MP83084
LCS Standard	
Chk Standard	MP83091,MP83092

84	P4799-19	WC-TA1-03-C	SAM	11/14/24 20:30		Kareem	OK
85	P4807-04	TP-7	SAM	11/14/24 20:34		Kareem	OK
86	P4807-08	BF-F14	SAM	11/14/24 20:39		Kareem	OK
87	P4807-12	BF-F13	SAM	11/14/24 20:43		Kareem	OK
88	CCV08	CCV08	CCV	11/14/24 20:47		Kareem	OK
89	CCB08	CCB08	CCB	11/14/24 21:42		Kareem	OK
90	P4807-16	TP-6	SAM	11/14/24 21:46		Kareem	OK
91	P4809-04	MH-5	SAM	11/14/24 21:51		Kareem	OK
92	P4813-02	417	SAM	11/14/24 21:55		Kareem	OK
93	P4813-03	418	SAM	11/14/24 22:00		Kareem	OK
94	CCV09	CCV09	CCV	11/14/24 22:04		Kareem	OK
95	CCB09	CCB09	CCB	11/14/24 22:08		Kareem	OK
96	P4813-05	420	SAM	11/14/24 22:13		Kareem	OK
97	P4812-03	270	SAM	11/14/24 22:17		Kareem	OK
98	P4813-01	416	SAM	11/14/24 22:22		Kareem	OK
99	P4813-04DL	419DL	SAM	11/14/24 22:26	Not used	Kareem	Not Ok
100	LR1	LR1	HIGH STD	11/14/24 22:36		Kareem	OK
101	LR2	LR2	HIGH STD	11/14/24 22:41		Kareem	OK
102	P4834-01	SLP-1-WATER	SAM	11/14/24 22:45		Kareem	OK
103	P4835-01	345-2-WATER	SAM	11/14/24 22:49	Confirm Wt	Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133457

Review By	jaswal	Review On	11/20/2024 11:57:44 PM
Supervise By	mohan	Supervise On	11/20/2024 11:58:39 PM

STD. NAME	STD REF.#
ICAL Standard	MP83078,MP83079,MP73080,MP83081,MP83082,MP83084
ICV Standard	MP83085
CCV Standard	MP83088
ICSA Standard	MP83086,MP83087
CRI Standard	MP83084
LCS Standard	
Chk Standard	MP83091,MP83092

104	P4836-01	T3-WATER	SAM	11/14/24 22:54	Confirm Wt	Kareem	OK
105	CCV10	CCV10	CCV	11/14/24 22:58		Kareem	OK
106	CCB10	CCB10	CCB	11/14/24 23:03		Kareem	OK

Prep Standard - Chemical Standard Summary

Order ID : P4822

Test : Mercury, Metals ICP-TAL

Prepbatch ID : PB164935, PB164947,

Sequence ID/Qc Batch ID: LB133424, LB133457,

Standard ID :

MP73080, MP83078, MP83079, MP83081, MP83082, MP83083, MP83084, MP83085, MP83086, MP83087, MP83088, MP83091, MP83092, MP83122, MP83208, MP83210, MP83231, MP83232, MP83233, MP83234, MP83235, MP83236, MP83237, MP83238, MP83239, MP83240, MP83241, MP83242, MP83243, MP83245,

Chemical ID :

M4371, M4583, M4916, M5062, M5130, M5192, M5218, M5223, M5288, M5295, M5296, M5390, M5394, M5404, M5429, M5467, M5498, M5515, M5634, M5658, M5697, M5698, M5747, M5748, M5769, M5798, M5799, M5800, M5801, M5802, M5806, M5814, M5815, M5816, M5817, M5818, M5819, M5820, M5875, M5882, M5884, M5953, M5962, M5970, M5978, M5982, M5984, M5985, M6000, M6009, M6021, M6023, M6028, M6030, M6033, M6111, M6116, M6117, M6118, M6120, M6121, W2606, W3112,

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
903	ICP AES RINSE SOLN	MP73080	12/27/2022	01/08/2023	Bin He	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 12/28/2022

FROM 200.00000ml of M5404 + 9800.00000ml of W2606 = Final Quantity: 10000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83078	11/06/2024	12/06/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 11/07/2024

FROM 125.00000ml of M6111 + 2350.00000ml of W3112 + 25.00000ml of M6117 = Final Quantity: 2500.000 ml

[illegible]

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
909	ICP AES STD S3	MP83081	11/06/2024	12/06/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 11/07/2024
<u>FROM</u> 25.00000ml of MP83079 + 75.00000ml of MP83078 = Final Quantity: 100.000 ml								

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3913	ICP AES STD S2	MP83082	11/06/2024	12/06/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								11/07/2024

FROM 16.00000ml of MP83079 + 184.00000ml of MP83078 = Final Quantity: 200.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2950	ICP AES S1/CRI STOCK STD	MP83083	11/06/2024	12/06/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								11/07/2024

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.05000ml of M5515 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.05000ml of M6033 + 0.06000ml of M5747 + 0.10000ml of M5697 + 0.10000ml of M5698 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M5982 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M5819 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.25000ml of M5467 + 0.25000ml of M5802 + 0.50000ml of M5390 + 0.50000ml of M5814 + 1.00000ml of M5192 + 1.00000ml of M5288 + 1.00000ml of M5498 + 1.00000ml of M5769 + 1.00000ml of M5806 + 1.00000ml of M5978 + 2.00000ml of M5816 + 2.00000ml of M5818 + 77.68000ml of MP83078 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2951	ICP AES S1/CRI WORK STD	MP83084	11/06/2024	12/06/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								11/07/2024

FROM 2.00000ml of MP83083 + 98.00000ml of MP83078 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
912	ICP AES ICV SOLN	MP83085	11/06/2024	12/06/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								11/07/2024

FROM 0.02500ml of M5429 + 0.02500ml of M5815 + 0.02500ml of M5817 + 0.25000ml of M5218 + 0.25000ml of M5982 + 10.00000ml of M5295 + 89.77500ml of MP83078 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
904	ICP AES ICSA SOLN	MP83086	11/06/2024	11/19/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								11/07/2024

FROM 25.00000ml of M5130 + 225.00000ml of MP83078 = Final Quantity: 250.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3494	ICP AES ICSAB SOLN-1	MP83087	11/06/2024	11/19/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								11/07/2024

FROM 0.01000ml of M5815 + 0.01000ml of M5817 + 0.10000ml of M5296 + 0.10000ml of M5970 + 1.00000ml of M5982 + 10.00000ml of M5130 + 10.00000ml of M5223 + 79.50000ml of MP83078 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
911	ICP AES CCV SOLN	MP83088	11/06/2024	12/06/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
11/07/2024								

FROM 50.00000ml of MP83078 + 50.00000ml of MP83079 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
919	ICP AES INTERNAL STD	MP83091	11/06/2024	12/06/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
11/07/2024								

FROM 1.00000ml of M5984 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6117 = Final Quantity: 2000.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
513	RINSE SOLN	MP83092	11/06/2024	12/06/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								11/07/2024

FROM 200.00000ml of M6117 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
169	1:1HNO3	MP83122	11/07/2024	12/06/2024	Janvi Patel	None	None	Sarabjit Jaswal
								11/07/2024

FROM 1000.00000ml of M6116 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP83208	11/11/2024	05/11/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 11/11/2024

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE	MP83210	11/11/2024	05/11/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 11/11/2024

FROM 2000.00000ml of W3112 + 240.00000gram of M4371 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP83231	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HG)	Sarabjit Jaswal 11/15/2024
A)								
<u>FROM</u>	1.00000ml of M6120 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1340	Hg 0.00 PPB STD	MP83232	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 11/15/2024
<u>FROM</u>	2.50000ml of M6120 + 247.50000ml of W3112 = Final Quantity: 250.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1341	Hg 0.2 PPB STD	MP83233	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 11/15/2024
<u>FROM</u>	2.50000ml of M6120 + 247.30000ml of W3112 + 0.20000ml of MP83231 = Final Quantity: 250.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1342	Hg 2.5 PPB STD	MP83234	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 11/15/2024
<u>FROM</u>	2.50000ml of M6120 + 245.00000ml of W3112 + 2.50000ml of MP83231 = Final Quantity: 250.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1343	Hg 5.0 PPB STD	MP83235	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HG	Sarabjit Jaswal
FROM 2.50000ml of M6120 + 242.50000ml of W3112 + 5.00000ml of MP83231 = Final Quantity: 250.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1344	Hg 7.5 PPB STD	MP83236	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HG)	Sarabjit Jaswal
FROM 2.50000ml of M6120 + 240.00000ml of W3112 + 7.50000ml of MP83231 = Final Quantity: 250.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1345	Hg 10.0 PPB STD	MP83237	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HG	Sarabjit Jaswal
A) FROM 2.50000ml of M6120 + 237.50000ml of W3112 + 10.00000ml of MP83231 = Final Quantity: 250.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1346	Hg ICV SOLUTION	MP83238	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 11/15/2024
<u>FROM</u>	2.50000ml of M5953 + 2.50000ml of M6120 + 245.00000ml of W3112 = Final Quantity: 250.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1351	ICB (Hg 0.00 PPB SOLUTION)	MP83239	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HG	Sarabjit Jaswal
A) FROM 2.50000ml of M6120 + 247.50000ml of W3112 = Final Quantity: 250.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1358	CCV (Hg 5.0 PPB SOLUTION)	MP83240	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 11/15/2024
<u>FROM</u> 485.00000ml of W3112 + 5.00000ml of M6120 + 10.00000ml of MP83231 = Final Quantity: 500.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1352	CCB (Hg 0.00 PPB SOLUTION)	MP83241	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 11/15/2024
<u>FROM</u> 495.00000ml of W3112 + 5.00000ml of M6120 = Final Quantity: 500.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP83242	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 11/15/2024
<u>FROM</u> 2.50000ml of M6120 + 247.30000ml of W3112 + 0.20000ml of MP83231 = Final Quantity: 250.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP83243	11/13/2024	11/14/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 11/15/2024
<u>FROM</u>	2.50000ml of M6120 + 240.50000ml of W3112 + 7.00000ml of MP83231 = Final Quantity: 250.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipettelD</u>	<u>Supervised By</u>
68	STANNOUS CHLORIDE SOLUTION	MP83245	11/13/2024	11/14/2024	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 11/15/2024
<u>FROM</u> 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6121 = Final Quantity: 500.000 ml								

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	07/01/2019 / RICHARD	06/07/2019 / RICHARD	M4371

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 #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	11/19/2024	05/20/2024 /	04/20/2021 / bin	M5130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	051722	05/17/2025	07/01/2022 / bin	06/17/2022 / jaswal	M5192

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	S2-MEB711674	11/02/2026	07/01/2022 / bin	09/10/2021 / bin	M5218

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	11/19/2024	05/20/2024 /	04/20/2021 / bin	M5223

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	071122	07/11/2025	09/01/2022 / jaswal	07/21/2022 / jaswal	M5288

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV-1014	02/05/2025	08/07/2024 / jaswal	02/20/2020 / bin	M5295

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	S2-MEB711673	11/02/2026	09/19/2022 / jaswal	08/20/2022 / jaswal	M5296

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	072122	07/21/2025	08/07/2024 / jaswal	09/18/2022 / bin	M5390

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB714159	01/13/2027	11/28/2022 / bin	09/19/2022 / bin	M5394

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)	22C0462001	06/12/2023	12/20/2022 / Al-Terek	02/11/2022 / Al-Terek	M5404

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	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.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5498

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	092122	09/21/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5515

CHEMICAL RECEIPT LOG BOOK

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	02/03/2025	04/18/2024 /	08/03/2022 / Al-Terek	M5634

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	102623	10/26/2026	04/18/2024 / jaswal	10/27/2023 / jaswal	M5698

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	05/24/2024 / Jaswal	01/03/2024 / bin	M5769

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	120523	12/05/2026	08/07/2024 / jaswal	01/03/2024 / jaswal	M5802

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	122223	12/22/2026	08/01/2024 / Jaswal	01/03/2024 / jaswal	M5806

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.	57014 / Si, 1000 PPM, 125 ml	122023	12/20/2026	03/06/2024 / jaswal	02/09/2024 / jaswal	M5818

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	111623	11/16/2026	03/20/2024 / jaswal	02/09/2024 / jaswal	M5819

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

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 #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	01/01/2025	07/01/2024 / mohan	03/30/2023 / mohan	M5953

CHEMICAL RECEIPT LOG BOOK

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

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	CGT11-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	031524	03/15/2027	07/01/2024 / Jaswal	06/11/2024 / Jaswal	M5982

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	08/05/2024 / kareem	06/14/2024 / Jaswal	M5984

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

CHEMICAL RECEIPT LOG BOOK

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	08/13/2024 / Jaswal	05/14/2024 / Jaswal	M6000

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	03/17/2028	08/13/2024 / Jaswal	05/14/2024 / Jaswal	M6009

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / TI, 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	01/25/2019 / 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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/07/2024 / Jaswal	01/03/2024 / Jaswal	M6033

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)	22F0762009	05/09/2027	11/04/2024 / Eman	09/29/2024 / Janvi	M6111

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)	24B1362001	05/03/2025	11/04/2024 / Janvi	09/29/2024 / Eman	M6116

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)	24B1362001	05/06/2025	11/06/2024 / Janvi	09/29/2024 / Eman	M6117

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)	22E1662006	05/09/2025	11/09/2024 / Janvi	10/09/2024 / Janvi	M6118

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	23I0662003	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6120

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

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

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 / lwona	07/03/2024 / lwona	W3112

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.



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57048
070124
Cadmium (Cd)

Solvent: 24002546 Nitric Acid

R: 815/24

Lot #

2% 40.0 Nitric Acid (mL)

Expiration Date: 070127

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6UTB

SE-05 Balance Uncertainty

Weight shown below was diluted to (mL): 2000.07 0.100 Flask Uncertainty

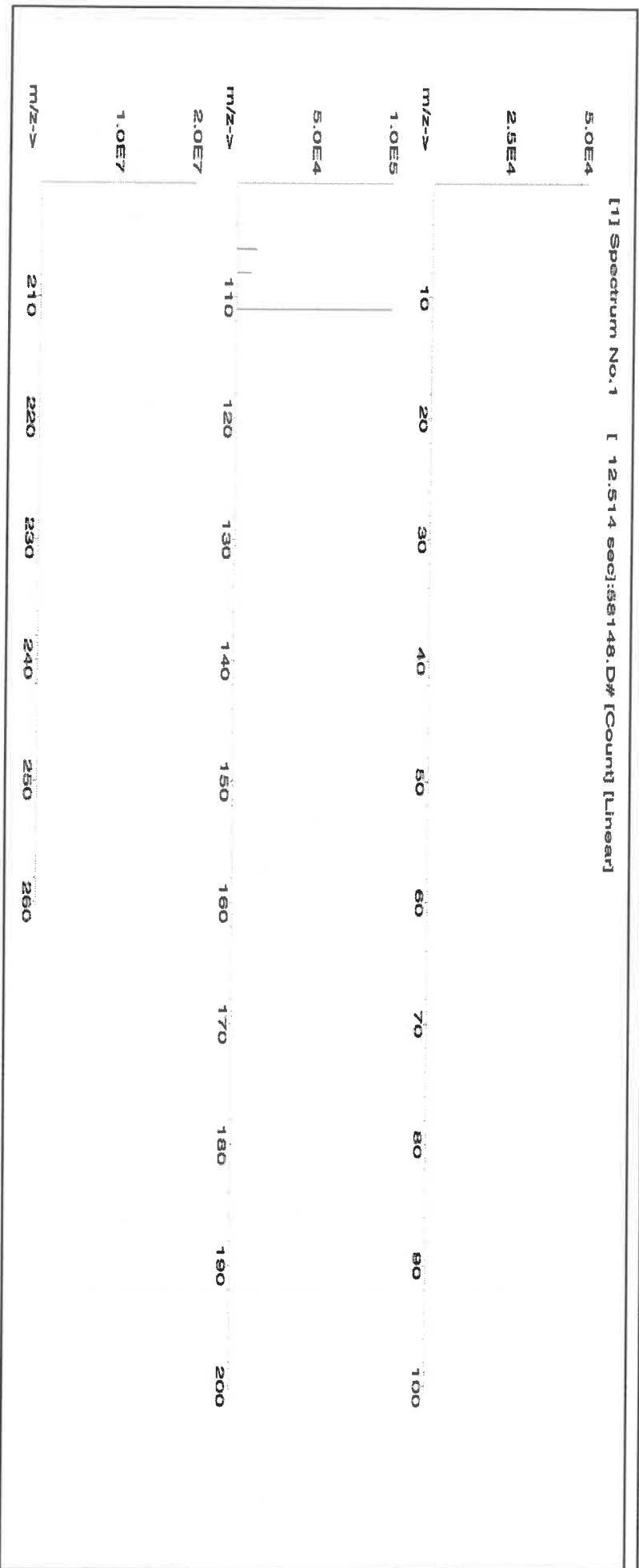
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	070124
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas
	070124

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Cadmium nitrate tetrahydrate (Cd)	IN024 CDM09221A1	1000	99.999	0.10	36.5	5.4797	5.4804	1000.1	2.0	10022-68-1	0.01 mg/m3	or-rat 60.2mg/kg	3108
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[1] Spectrum No.1 [12.514 sec]:\$8148.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.2	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<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	Ba	<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	Cd	<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	Pr	<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 certified (+/-) 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).



Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: CHEM-CLP-4
Lot Number: S2-MEB711673
Matrix: 3% (v/v) HNO₃
3% (v/v) HF
Value / Analyte(s): 1 000 µg/mL ea:
Boron, Molybdenum,
Silicon, Tin,
Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 6 µg/mL	Molybdenum, Mo	1 000 ± 6 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 6 µg/mL
Titanium, Ti	1 000 ± 7 µg/mL		

Density: 1.030 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k(u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2(u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k(u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





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1.0 ACCREDITATION / REGISTRATION

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).



2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	CLPP-CAL-1	
Lot Number:	T2-MEB714417	
Matrix:	5% (v/v) HNO ₃	
Value / Analyte(s):	5 000 µg/mL ea:	Potassium, Sodium,
	Calcium, Magnesium,	
	2 000 µg/mL ea:	Barium,
	Aluminum,	
	1 000 µg/mL ea:	
	Iron,	
	500 µg/mL ea:	Vanadium, Cobalt,
	Nickel, Zinc, Manganese,	
	250 µg/mL ea:	Copper,
	Silver,	
	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 °C)

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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = 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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- January 27, 2027

- The date after which this CRM/RM should not be used.
- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





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2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: CLPP-CAL-3
Lot Number: T2-MEB714159
Matrix: 7% (v/v) HNO₃
Value / Analyte(s):
1 000 µg/mL ea:
Arsenic, Lead,
Selenium, Thallium,
500 µg/mL ea:
Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	1 000 ± 8 µg/mL	Cadmium, Cd	500.0 ± 2.1 µg/mL
Lead, Pb	1 000 ± 5 µg/mL	Selenium, Se	1 000 ± 8 µg/mL
Thallium, Tl	1 000 ± 7 µg/mL		

Density: 1.043 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k(u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2(u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k(u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = 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

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"

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Refine your results. Redefine your industry.

RD:05/14/2024

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).



2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO ₃

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,	Aluminum,
	Cerium,	Selenium,
	Thallium,	
	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,	Boron,
	Vanadium,	
	20 µg/mL ea:	
	Zinc,	Strontium,
	Barium,	Beryllium,
	Cadmium,	Cobalt,
	Manganese,	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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum (1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty (z)} = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum ((w_i)^2 (u_{\text{char } i}^2))]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty (z)} = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = 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:

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Chairman / Senior Technical Director





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RD:05/14/2024

Certificate of Analysis

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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, SiO ₂	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
SiO ₂	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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum (1/u_{\text{char } i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (z) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{ITS}}^2 + u_{\text{TS}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum (w_i)^2 (u_{\text{char } i})^2]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ITS} = long term stability standard uncertainty (storage)

u_{TS} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (z) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{ITS}}^2 + u_{\text{TS}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ITS} = 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



M4371

Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

Rec - 06.07.19



avantortm

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 ₂ OH · HCl) (by KMnO ₄ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrate 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



Manufacturer:
Saint-Gobain Performance Plastics
11 Sicho Drive
Poestenkill, NY 12140

Certificate of Conformance

Part Number/	D1069103	Customer	1069103
Revision:	0	Part Number/	
		Revision:	N/A
Description:	*PTFE BOILING STONES-450 GRAMS		
Lot Number:	26275770	Lot Quantity:	10 EA
Date of		Expiration	
Manufacture	03/23/20	Date:	N/A
(MM/DD/YY)		(MM/DD/YY)	
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:		Date:	05/13/20
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M4913-16

MS

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.

300 Technology Drive
 Christiansburg, VA 24073 USA
 inorganicventures.com

P: 800-669-6799/540-585-3030
 F: 540-585-3012
 info@inorganicventures.com

MS062
 MS063
 MB

1.0 ACCREDITATION / REGISTRATION

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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:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

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.

$$w_i = (1/u_{char i}^2) / (\sum (1/(u_{char i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum ((w_i)^2 (u_{char i}^2))]^{1/2}$ 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

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

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 HNO₃. 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% HNO₃ / LDPE container, stable in 10% HNO₃ packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO₃ packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO₃ / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxide (Soluble in HNO₃); 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

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 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





Instructions for QATS Reference Material: *ICP-AES ICS*

**QATS LABORATORY INORGANIC REFERENCE MATERIAL
INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)**

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) SAMPLE DESCRIPTION

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) BREAKAGE OR MISSING ITEMS

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

**QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120**

(C) ANALYSIS OF SAMPLES

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,





Instructions for QATS Reference Material: ICP-AES ICS

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 HNO₃. 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 HNO₃. 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.

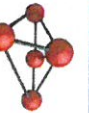
Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

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.

ICSA
M5126
M5127
M5128
M5129
M5130

ICSB
M5219
M5220
M5221
M5222
M5223



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57042
051722
Molybdenum (Mo)

Lot # **Solvent:**
MKBO8597V Ammonium hydroxide

0.5% 15.0 (mL) Ammonium hydroxide

Expiration Date: 051725

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6UTB

Volume shown below was diluted to (mL): 3000.41

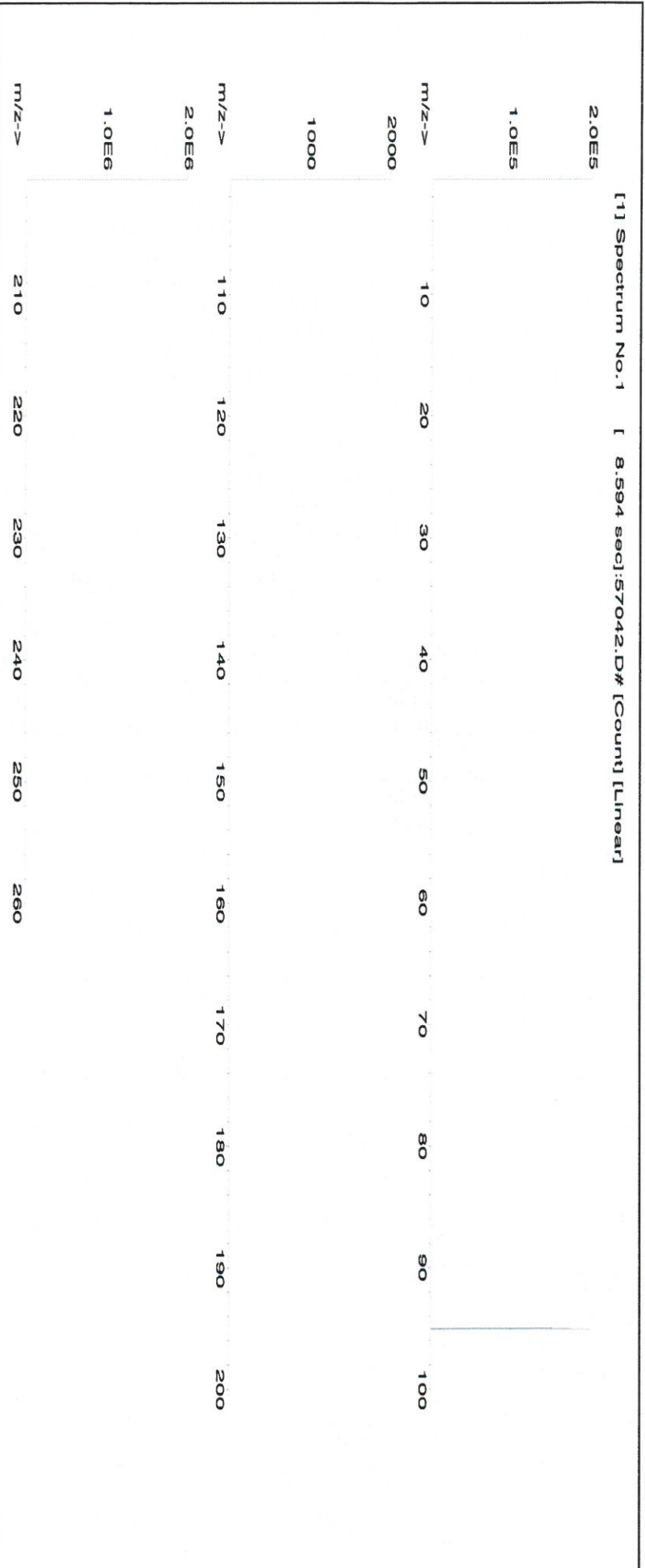
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry
	051722
Reviewed By:	Pedro L. Ruelas
	051722

SDS Information

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)	(Solvent Safety Info. On Attached pg.)	NIST SRM
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1. Ammonium molybdate (Mo) 58142 022222 0.1000 300.0 0.084 1000 10001.0 1000.0 2.1 13106-76-8 5 mg(Mo)/m3 or-trat 333 mg/kg 3134





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	Pt	<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	T	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 certified (+/-) 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).

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).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: CHEM-QC-4
 Lot Number: S2-MEB711674
 Matrix: 3% (v/v) HNO₃
 3% (v/v) HF
 Value / Analyte(s): 1 000 µg/mL ea:
 Boron, Molybdenum,
 Silicon, Tin,
 Titanium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 7 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 001 ± 6 µg/mL		

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k(u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2(u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k(u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Instructions for QATS Reference Material: ICP-AES ICS

**QATS LABORATORY INORGANIC REFERENCE MATERIAL
INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)**

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) SAMPLE DESCRIPTION

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) BREAKAGE OR MISSING ITEMS

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

**QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120**

(C) ANALYSIS OF SAMPLES

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,





Instructions for QATS Reference Material: ICP-AES ICS

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 HNO₃. 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 HNO₃. 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.

ICSA
M5126
M5127
M5128
M5129
M5130

ICSB
M5219
M5220
M5221
M5222
M5223



CERTIFIED WEIGHT REPORT:

Part Number: **58119**
Lot Number: **071122**
Description: **Potassium (K)**

Solvent: 20510011 Nitric Acid
Lot #

Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): **10000**
NIST Test Number: 6UTB

2% 40.0 mL Nitric Acid

Weight shown below was diluted to (mL): 2000.02
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry
	071122
Reviewed By:	Pedro L. Rentas
	071122

Compound

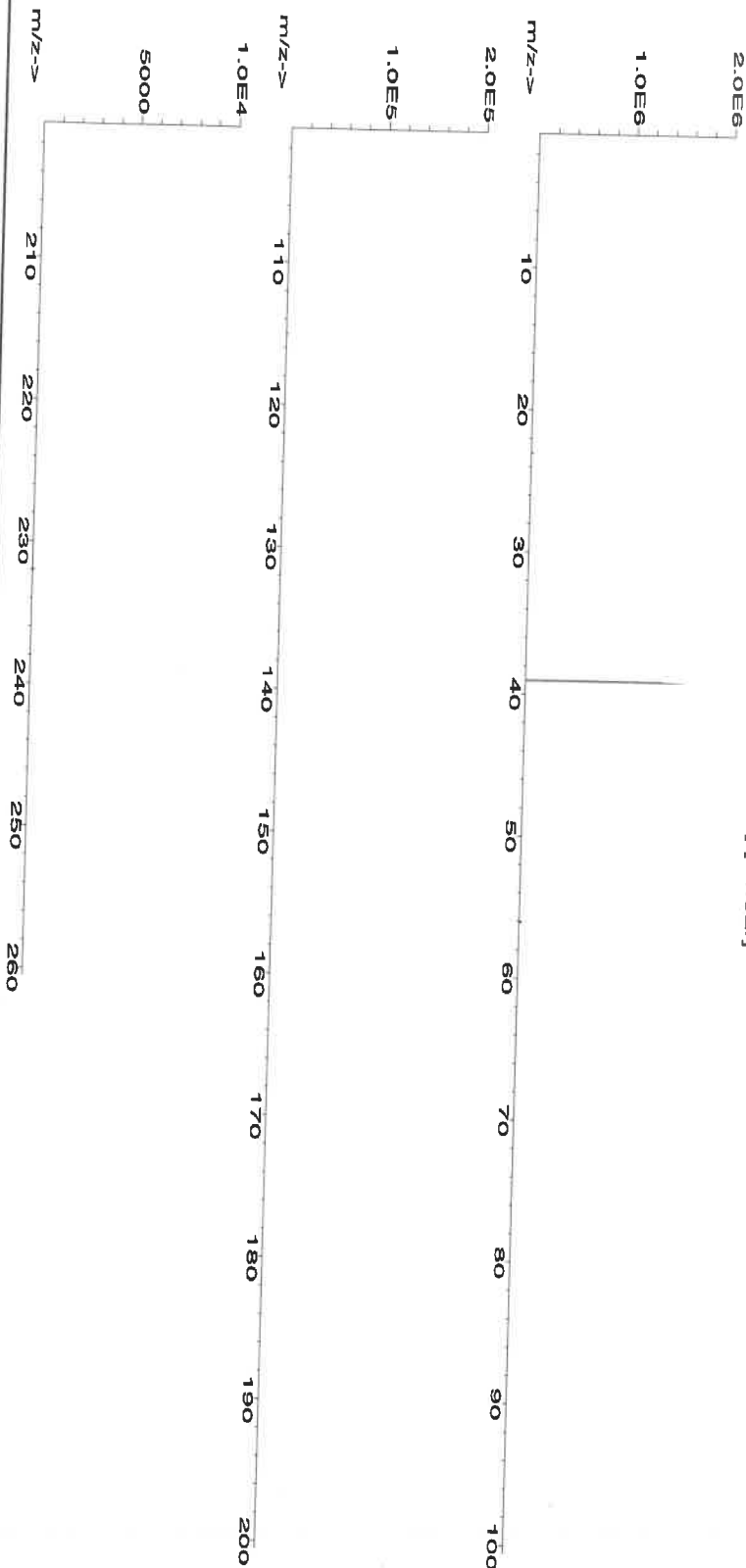
1. Potassium nitrate (K)

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
IN034	KD022021A1	10000	99.999	0.10	37.6	53.1925	53.1934	10000.2	20.0	7757-79-1	5 mg/m3	or-rat 3015 mg/kg	3141a

SDS Information

(Solvent Safety Info. On Attached pg.)
CAS#
OSHA PEL (TWA)
LD50

[1] Spectrum No. 1 [35.763 sec]:58119.D# [Count] [Linear]





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	Pt	<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	<0.02	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 certified (+/-) 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).



R: 4/20/21

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

QATS LABORATORY INORGANIC REFERENCE MATERIAL
INITIAL CALIBRATION VERIFICATION SOLUTIONS
(ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or
Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

M5291
M15292
M15293
M15294
M15295

(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.





QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

- 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



R-09/18/22 (RH)
Certified Reference Material CRM

MS387 - MS389, MS390, MS391, MS392



CERTIFIED WEIGHT REPORT:

Part Number: 57056
Lot Number: 072122
Description: Barium (Ba)

Solvent: 20510011 Nitric Acid

Lot #

Expiration Date: 072125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02 0.058 Balance Uncertainty
5E-05 Flask Uncertainty

2% 40.0 (mL) Nitric Acid

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	<i>Pedro L. Renteria</i>
	072122

SDS Information									
Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)
1. Barium nitrate (Ba)	IN023 BA022019A1	1000	99.899	0.10	52.3	3.82417	3.82426	1000.0	2.0
									10022-31-8
									0.5 mg/m3
									or -at 355 mg/kg 31044

[1] Spectrum No. 1 [12.514 sec]:58156.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

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	<0.02	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	<0.02	Os	<0.01	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Cd	<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	<0.02	Hg	<0.2	P	<0.2	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	<0.02	Sc	<0.2	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:

Ben. P. R.

- * 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 certified (+/-) 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).

Nitric Acid
CMOS



M5402 M5403 M5404
M5405 M5406 M5407

Material No.: 9606-03
Batch No.: 22C0462001
Manufactured Date: 2022-02-11
Retest Date: 2027-02-10
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 - 70.0 %	69.4 %
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	1.2 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	1.7 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	< 50 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 >>>

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

Nitric Acid
CMOS



Material No.: 9606-03
Batch No.: 22C0462001

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	< 10 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	7 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	2 par/ml

>>> Continued on page 3 >>>

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

Nitric Acid
CMOS



Material No.: 9606-03
Batch No.: 22C0462001

Test	Specification	Result
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For Microelectronic Use
Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

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



Certified Reference Material CRM

M5429 R1 0126/23 (B)

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57103
070622
Lithium (Li)

Solvent: 20510011 Nitric Acid

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

070625
Ambient (20 °C)
10000
6UTB

2% 20.0 (mL)

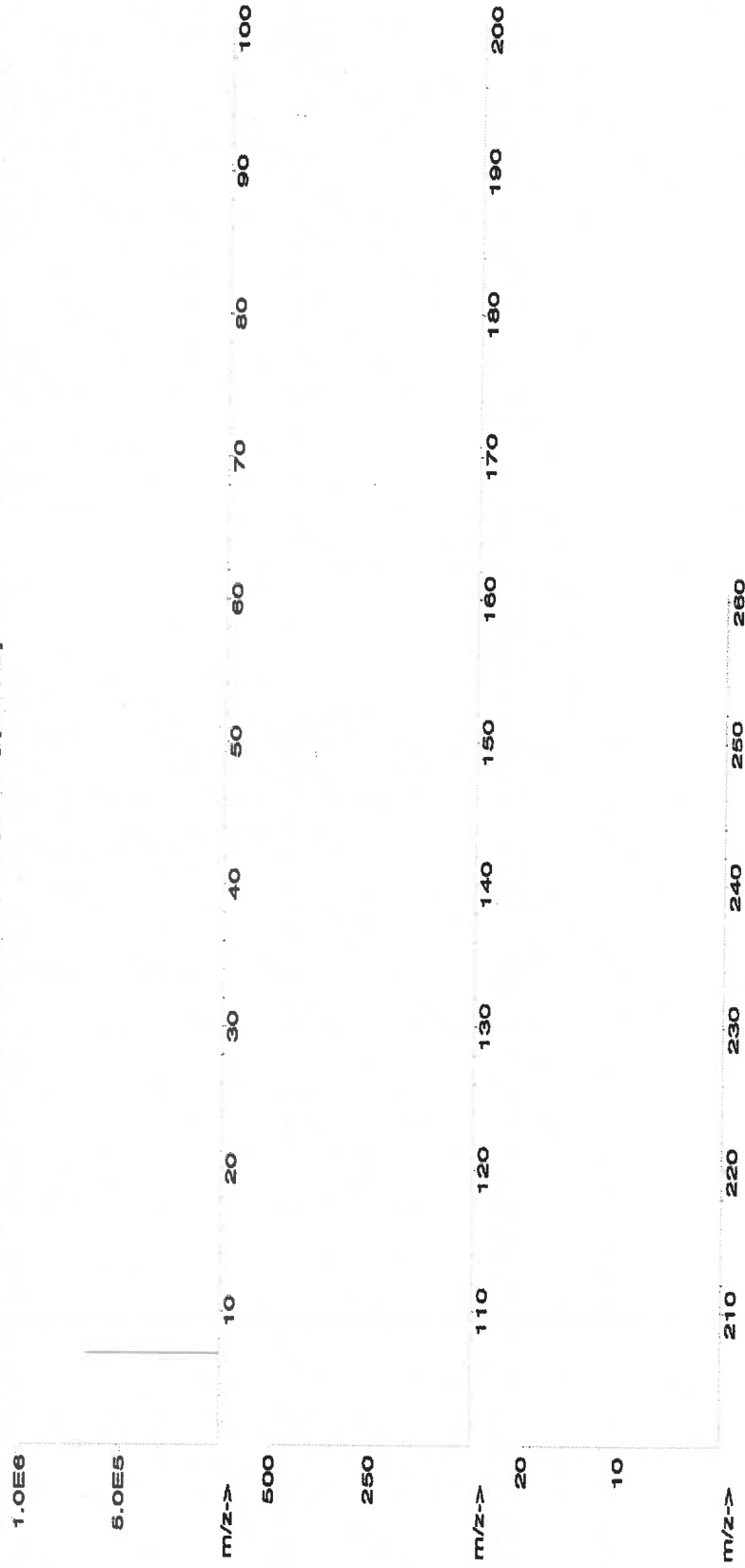
Weight shown below was diluted to (mL): 1000.12
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

<i>Lawrence Barry</i>	
Formulated By:	Lawrence Barry
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information		
											(Solvent Safety Info. On Attached pg.)	CAS#	NIST SRM

1. Lithium nitrate (Li)	IN019	L2042019A1	10000	99.999	0.10	10.0	100.0134	100.0173	10000.4	20.0	7790-69-4	5 mg/m3	of-rat 1426 mg/kg NA
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[1] Spectrum No.1 [9.619 sec]:58103.D# [Count] [Linear]





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	<0.02	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.2	Ho	<0.02	La	<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	<0.02	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.02	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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57058
020623
Cerium (Ce)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

020626
Ambient (20 °C)
1000
6UTB

Weight shown below was diluted to (mL):

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Solvent: Nitric Acid

2% 20.0 mL

Lot #

21110221

Nitric Acid

Formulated By:

Lawrence Barry

020623

Reviewed By:

Pedro L. Rentas

020623

SDS Information

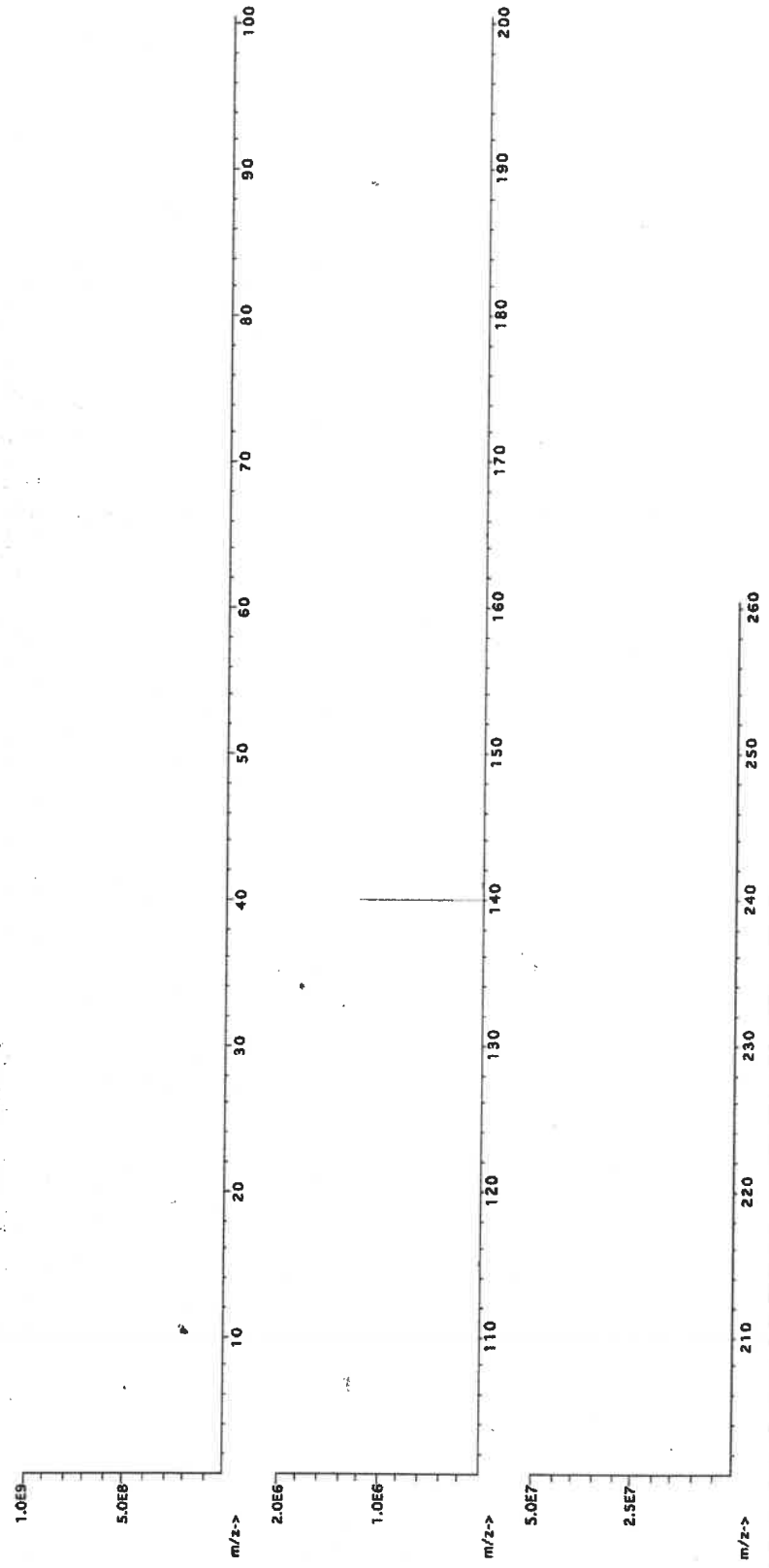
Expanded Uncertainty
Actual Conc. (µg/mL)
Actual Weight (g)
Target Weight (g)
Purity (%)
Nominal Conc. (µg/mL)
Lot Number
RM#

2.0
1000.0
3.04921
3.04919
32.8
0.10
99.999
1000
IN146 Z512CEB1

OSHA PEL (TWA)
CAS#
LD50
NA
NA
NA

1. Cerium nitrate hexahydrate (Ce)

[1] Spectrum No.1 [43.472 sec]58158.D# [Count] [Linear]





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	La	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<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	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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- * 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).



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	Pt	<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	Tc	<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	Ti	<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	<0.2	Fe	<0.02	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	Tl	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

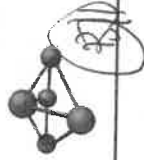
Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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Certified Reference Material CRM



MS54-MS55 R:03/17/22

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

58126
092122
Iron (Fe)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

092125
Ambient (20 °C)
10000
6UTB

Weight shown below was diluted to (mL):

5000.1

Solvent: 20510011 Nitric Acid

7.0% 350.0 Nitric Acid (mL)

5E-05 Balance Uncertainty
0.12 Flask Uncertainty

Formulated By:	Giovanni Esposito	092122
Reviewed By:	Pedro L. Rentas	092122

Expanded
Uncertainty

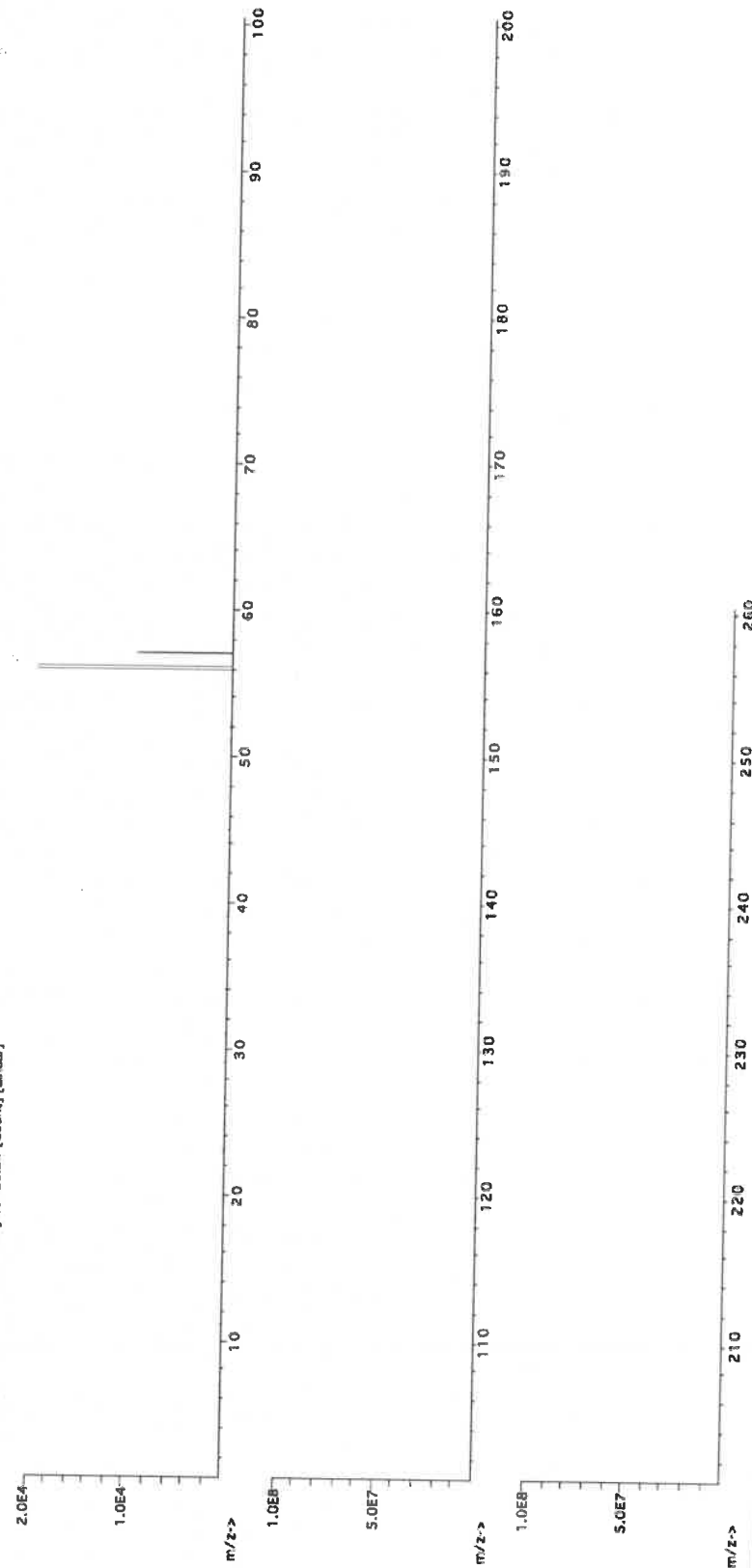
SDS Information

(Solvent Safety Info. On Attached pg.)
LD50 OSHA PEL (TWA)

NIST
SRM

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)	CAS#	OSHA PEL (TWA)	LD50	SRM
1. Iron (Fe)	IN346	2224912-500	10000	99.985	0.10	100.0	50.0034	50.0111	10001.5	20.0	7439-88-6	5 mg/m3	orl-rat 7500mg/kg	3126a

[1] Spectrum No.1 [30.763 sec]:58126.D# [Count] [Linear]





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	La	<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	<0.02	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	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.05
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

Ben P. Galt

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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).

CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

CERTIFICATE OF ANALYSIS

Date: 8/3/2022

MS631 MS632 MS633 MS634

Lot No 820803

Hydrogen Peroxide, ACS
Reagent Grade

<u>TEST</u>	<u>MAXIMUM LIMITS</u>	<u>RESULT</u>
Appearance	Colorless and free from suspended matter or sediment	Pass
Assay	29-32%	31.4%
Color (APHA)	10	5
Residue after Evaporation	0.002%	.0001%
Titrateable Acid	0.0006 meq/g	< .0006 meq/g
Chloride (Cl)	2 ppm	< 1 ppm
Nitrate (NO ₃)	2 ppm	< 1 ppm
Phosphate	2 ppm	< 1 ppm
Sulfate (SO ₄)	5 ppm	< .5 ppm
Ammonium (NH ₄)	5 ppm	< 1 ppm
Heavy Metals (as Pb)	1 ppm	< .1 ppm
Iron (Fe)	0.5 ppm	< .1 ppm
Sodium Stannate	200 – 300 ppb	Pass

***Our Hydrogen Peroxide is considered un-stabilized because it is very slightly stabilized with Sodium Stannate, 500 ppb maximum, just for safety purposes.

Date of MFG: 8/2022

Retest date: 8/2024

Gina M. Rambo
Office Manager



CERTIFIED WEIGHT REPORT:

Part Number: **58024**
Lot Number: **060523**
Description: **Chromium (Cr)**

Lot #: **2110221**
Solvent: **Nitric Acid**

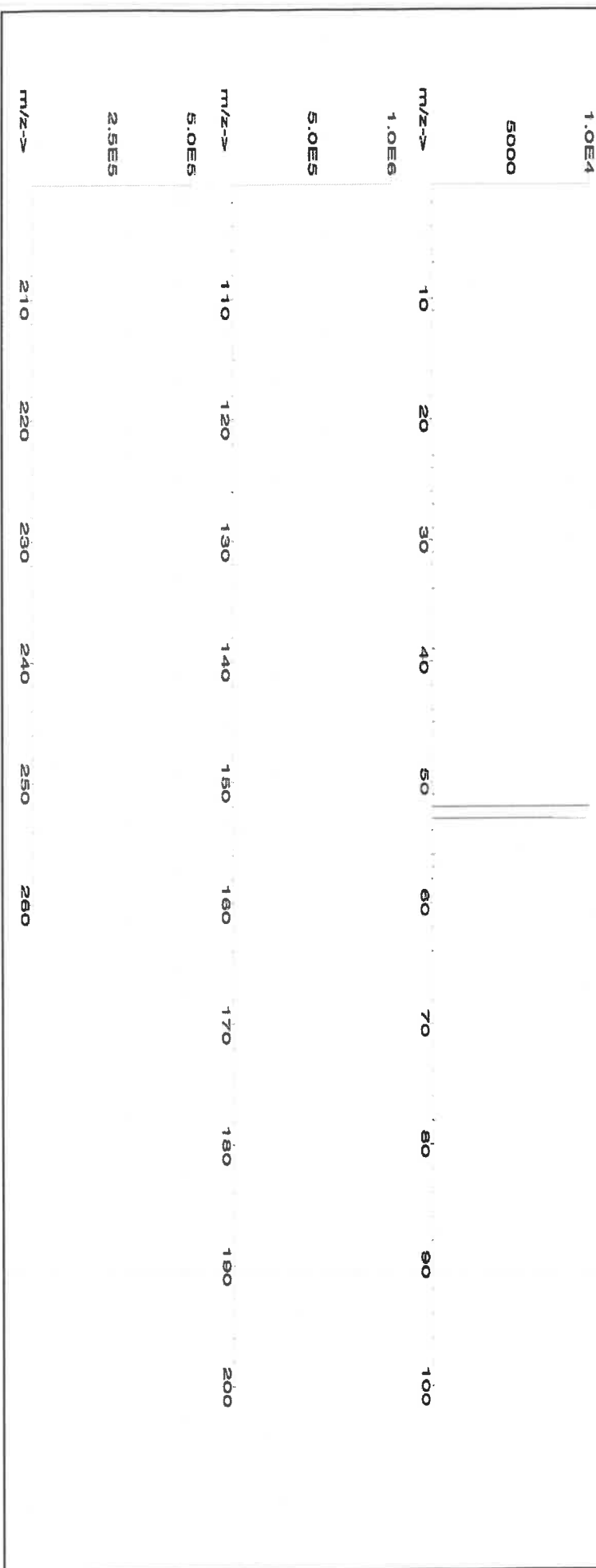
Formulated By:	Lawrence Barry
	060523
Reviewed By:	Pedro L. Ruelas
	060523

Expiration Date: 060526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.02 0.058 Balance Uncertainty
Flask Uncertainty

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	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 or rat 3250 mg/kg 3112a

[1] Spectrum No.1 [31.393 sec]:57024.D# [Count] [Linear]





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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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Certified Reference Material CRM

M5697 R: 10/27/23



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58029
Lot Number: 102523
Description: Copper (Cu)

Lot # 24002546
Solvent: Nitric Acid

2.0% 40.0 Nitric Acid (mL)

Expiration Date: 102526
Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

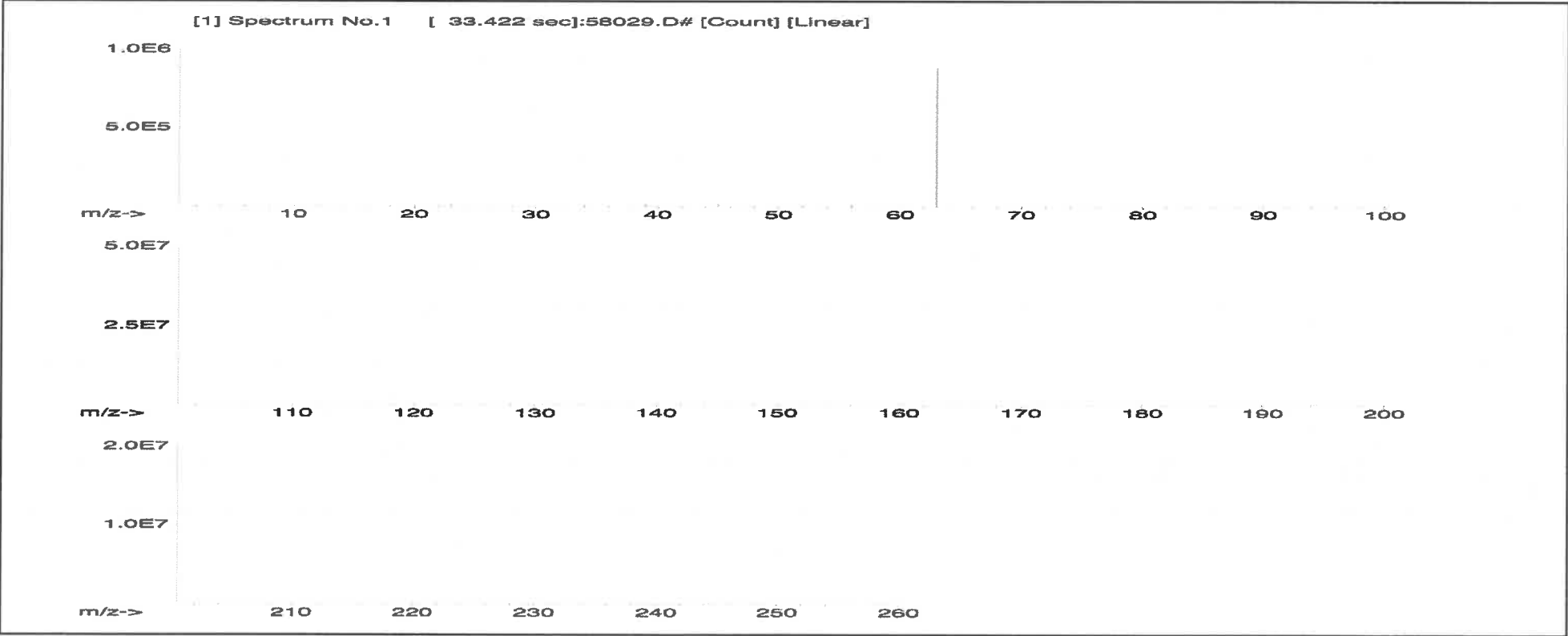
NIST Test Number: 6UTB

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	SDS Information			NIST
									Uncertainty +/- (µg/mL)	(Solvent Safety Info. On Attached pg.)			SRM
										CAS#	OSHA PEL (TWA)	LD50	
Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	1000.0	2.2	10031-43-3	1 mg/m3	ori-rat 794 mg/kg	3114





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																			
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

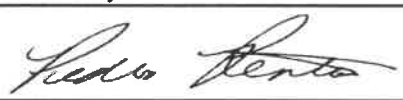
M5698 R: 10/23/23

CERTIFIED WEIGHT REPORT:

Part Number: 58025
Lot Number: 102623
Description: Manganese (Mn)

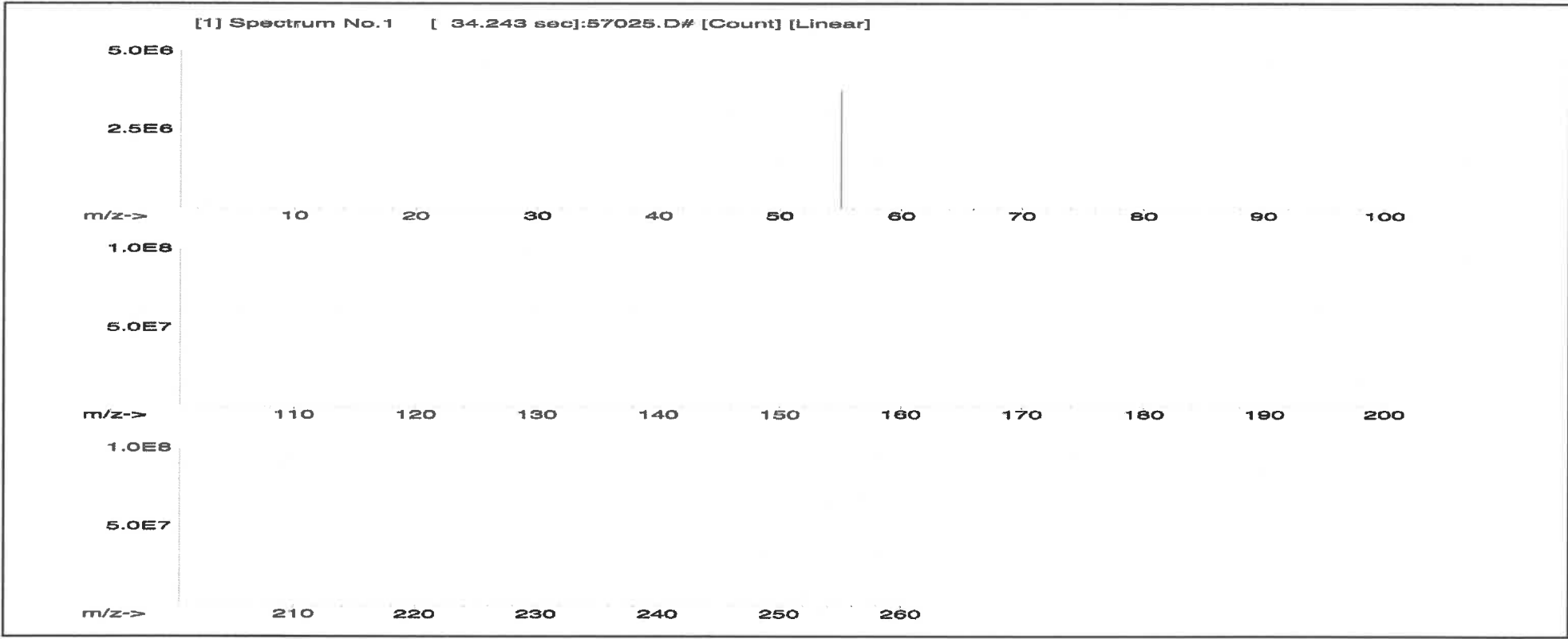
Lot # 24002546
Solvent: Nitric Acid
2.0% 60.0 (mL) Nitric Acid


Formulated By: Benson Chan 102623


Reviewed By: Pedro L. Rentas 102623

Expiration Date: 102626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 3000.41
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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	SDS Information			NIST
									Uncertainty +/- (µg/mL)	(Solvent Safety Info. On Attached pg.)			SRM
										CAS#	OSHA PEL (TWA)	LD50	
Manganese(II) nitrate tetrahydrate (Mn)	58125	071123	0.1000	300.0	0.084	1000	10000.1	1000.0	2.1	20694-39-7	5 mg/m3	ori-rat >300mg/kg	3132





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																			
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

Solvent: 24002546 Nitric Acid

Lot #

R: 12/20/23 MS747

Formulated By:	Lawrence Barry
	100923
Reviewed By:	Pedro L. Rentas
	100923

2% 60.0 Nitric Acid
(mL)

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

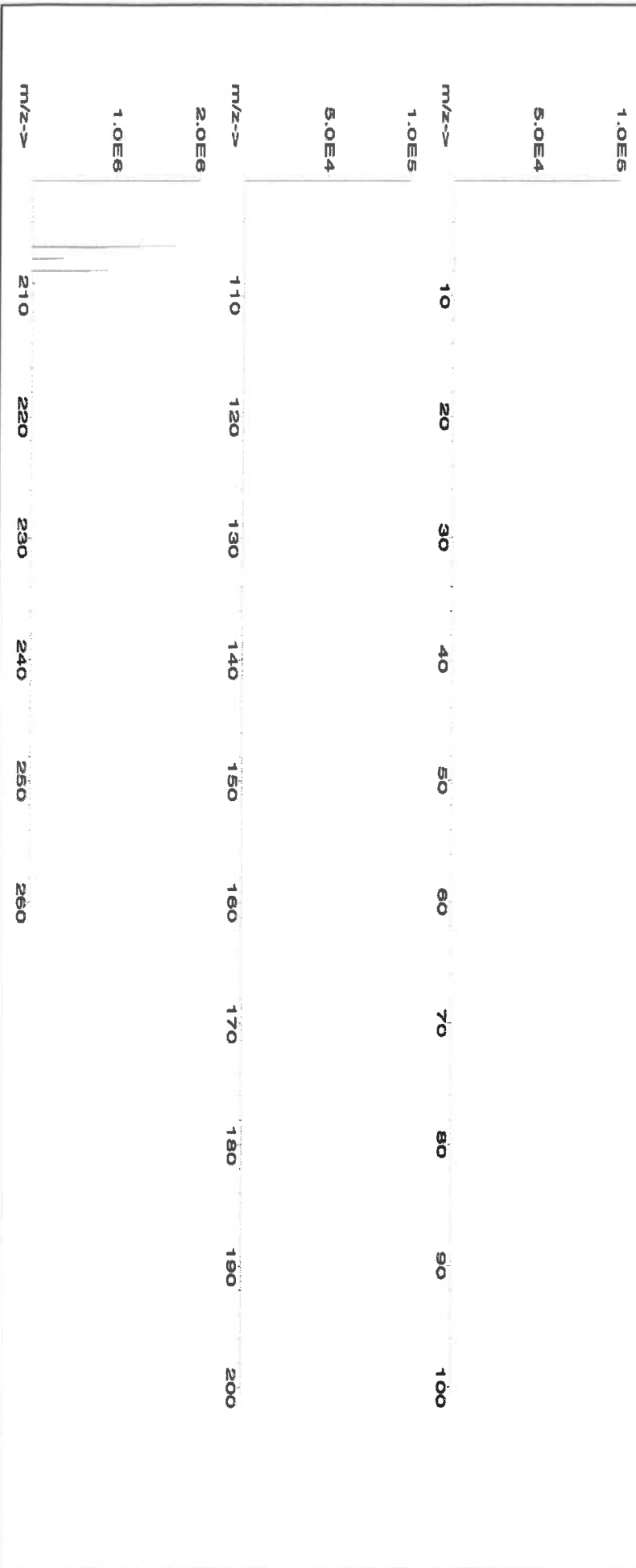
Compound

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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SDS Information

1. Lead(II) nitrate (Pb) IN029 Pb0122016A1 1000 99.999 0.10 62.5 4.80071 4.80077 1000.0 2.0 10099-74-8 0.05 mg/m3 Intyms-ret 89 mg/kg 3128

[1] Spectrum No. 1 [14.144 sec]:58082.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

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	Ba	<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

Physical Characterization:

(T) = Target analyte

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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **57028**
Lot Number: **091223**
Description: **Nickel (NI)**

Lot # **24002546** Solvent: **Nitric Acid**

Expiration Date: **091226**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**

2.0% 40.0 (mL) Nitric Acid

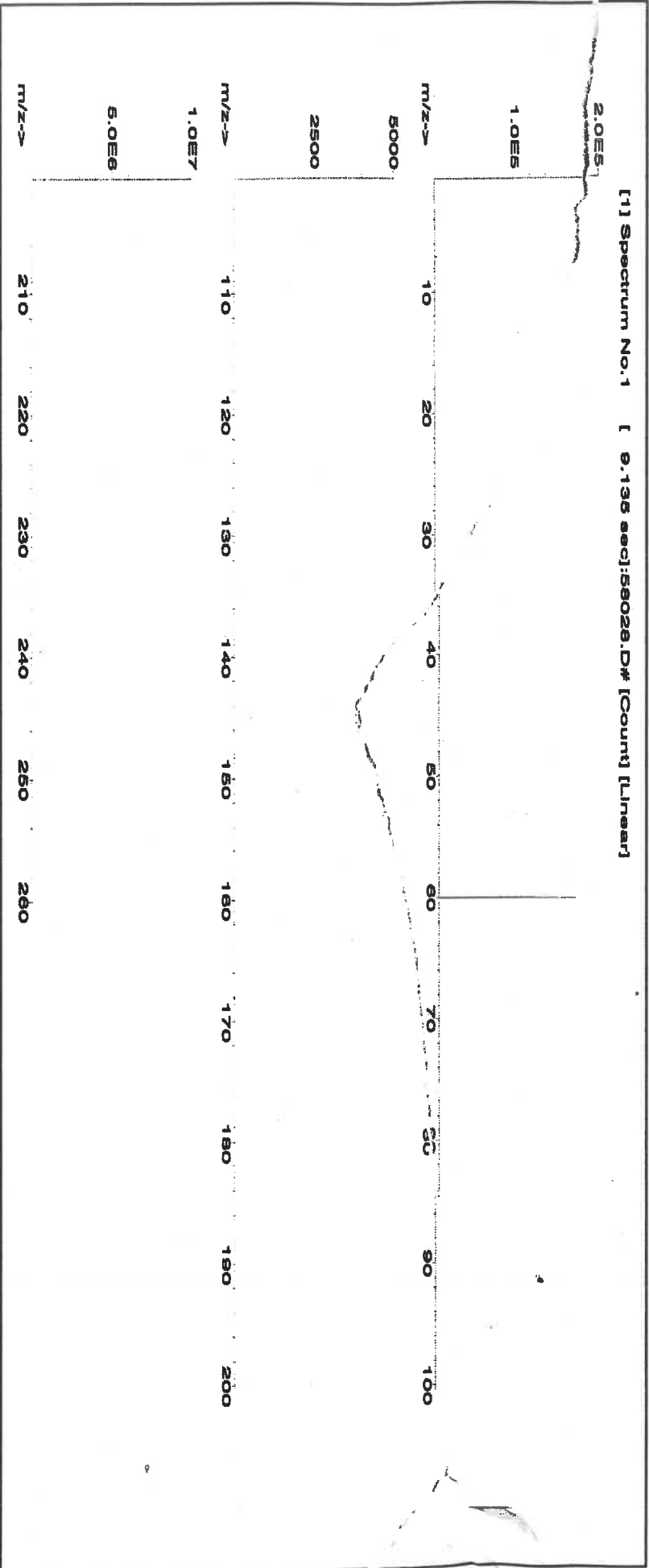
NIST Test Number: **6U7B**

Volume shown below was diluted to (mL): **2000.02** Balance Uncertainty: **5E-05** Flask Uncertainty: **0.056**

Formulated By:	<i>Lawrence Barry</i>	091223
Reviewed By:	<i>Pedro L. Renteria</i>	091223

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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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 or-rel 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	Tb	<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 certified (+/-) 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).



M5768 M5769
Certified Reference Material CRM
R: 1/13/24



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Solvent: 24002546 Nitric Acid

Lot #

Expiration Date: 091826

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 2000.02

2% 40.0 (mL) Nitric Acid

M5768 M5769
BP R: 1/13/24

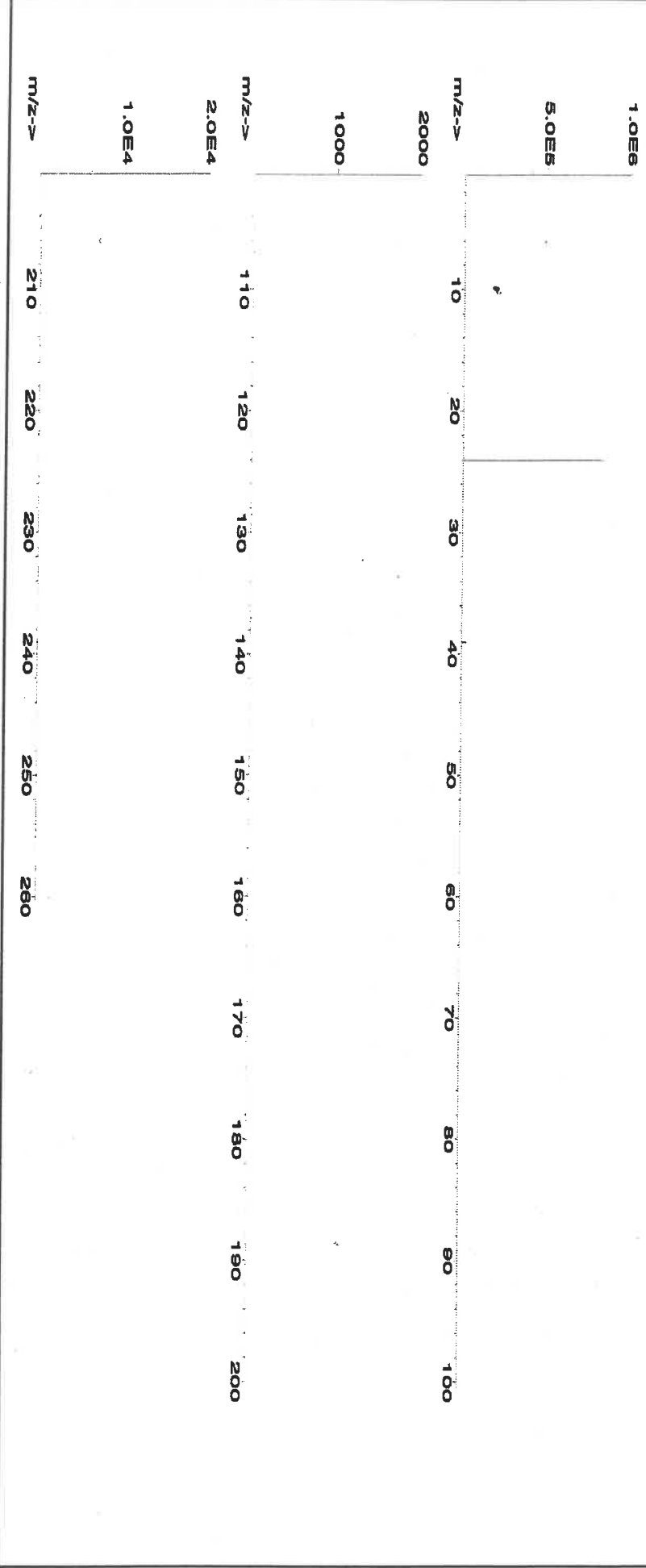
<i>Lawrence Barry</i>	
Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas
	091823

Compound

Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded	SDS Information	NIST
Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	Uncertainty +/- (µg/mL)	(Solvent Safety Info. On Attached pg.)	SRM

1. Magnesium nitrate hexahydrate (Mg) IN030 M500222A1 10000 99.999 0.10 8.51 234.9118 234.9126 10000.0 20.0 13446-18-9 NA or-lat 5440 mg/kg 3131a

[1] Spectrum No. 1 [19.923 sec]:58112.D# [Count] [Linear]





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.
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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).



CERTIFIED WEIGHT REPORT:

Part Number: 57004
Lot Number: 102523
Description: Beryllium (Be)

Lot # 24002546
Solvent: Nitric Acid

Expiration Date:

102526

2.0%

40.0 (mL)

Nitric Acid

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL): 2000.02

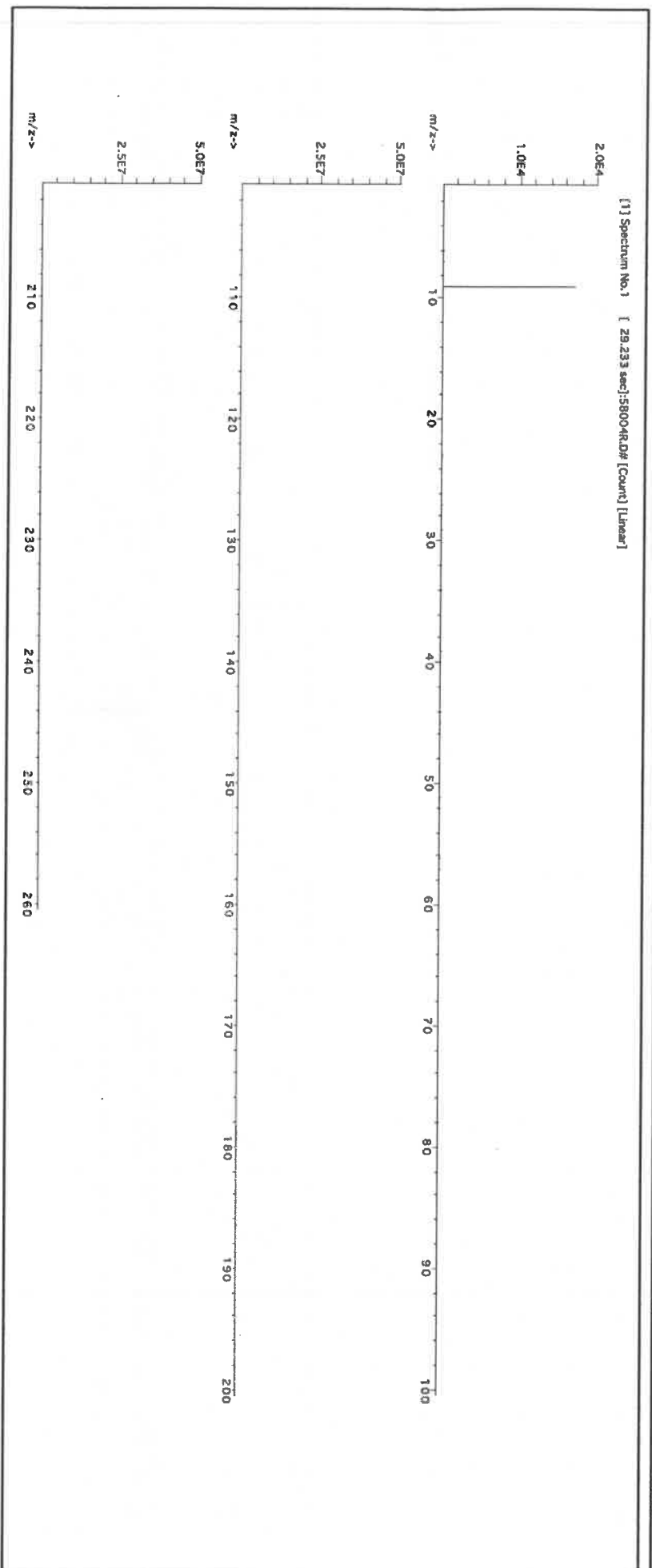
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

SDS Information

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	1000.0	2.2	13597-99-4	0.2µg/m3	intrinsc-rat 3.16mg/kg	NA
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<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	Tc	<0.02	U	<0.02
As	<0.02	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Ti	<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	<0.02	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	<0.02	Sc	<0.02	Ta	<0.02	Tl	<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 certified (+/-) 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).



Certified Reference Material CRM



CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

Solvents: 21110221 Nitric Acid
22D0562008 Hydrochloric acid

Lot # R-02509124 M599

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

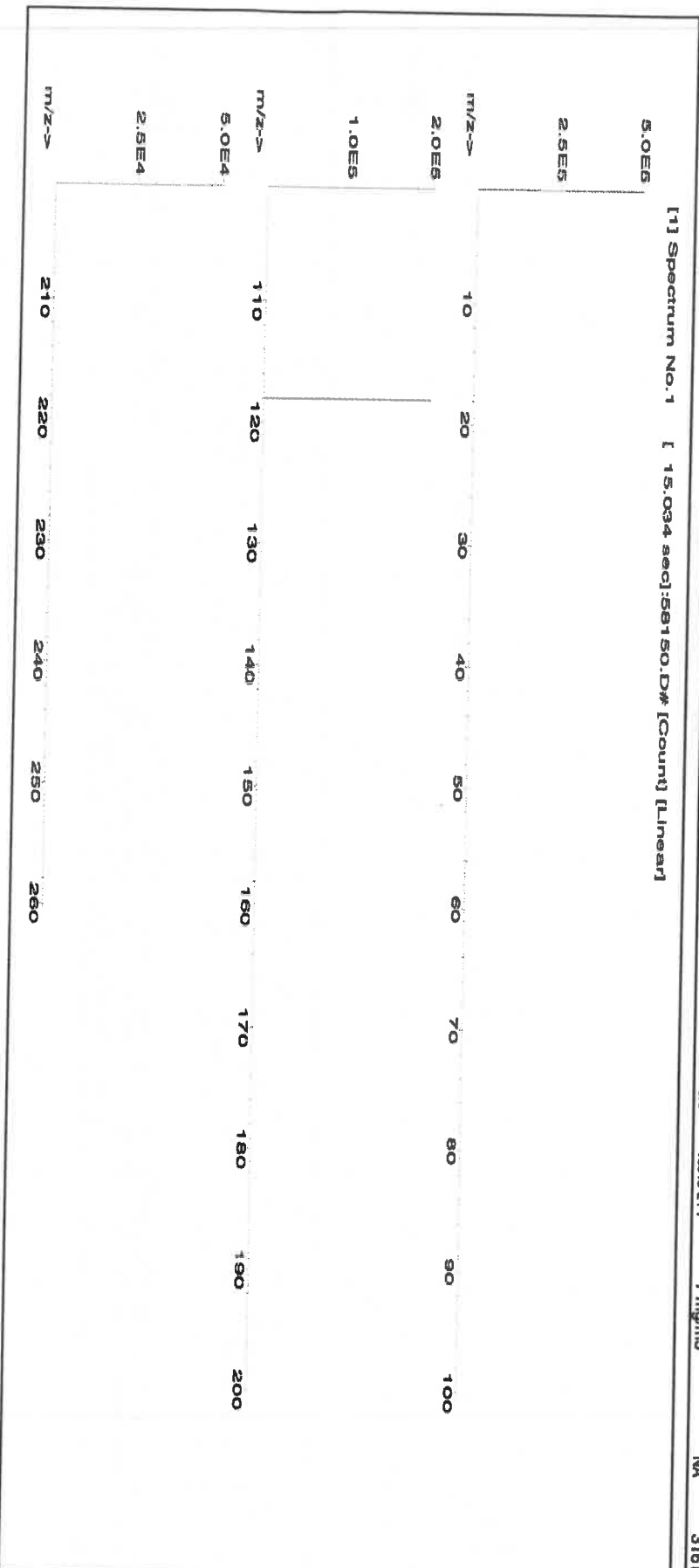
5E-05 Balance Uncertainty
0.0058 Flask Uncertainty

Formulated By:	Benson Chan
	071123
Reviewed By:	Pedro L. Rentas
	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty		CAS#	OSHA PEL (TWA)	LD50	NIST SRM
										+/- (µg/mL)	(µg/mL)				

1. Ammonium hexafluoroantimonate(V) (Sn) INO10 SMD042023A1 1000 99.999 0.10 44.2 1.13107 1.13286 1001.6 2.0 16919-24-7 7 mg/m3 NA 3161a

[1] Spectrum No. 1 [15.034 sec]:56150.D# [Count] [Linear]





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	Ti	<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	Ta	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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- * 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).



R: 02/09/24 115800 (54)

CERTIFIED WEIGHT REPORT:

Part Number: 57027
Lot Number: 091923
Description: Cobalt (Co)

Expiration Date: 091926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Volume shown below was diluted to (mL): 2000.02

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Lot # 24002546
Solvent: Nitric Acid

2.0% Nitric Acid
40.0 (mL)

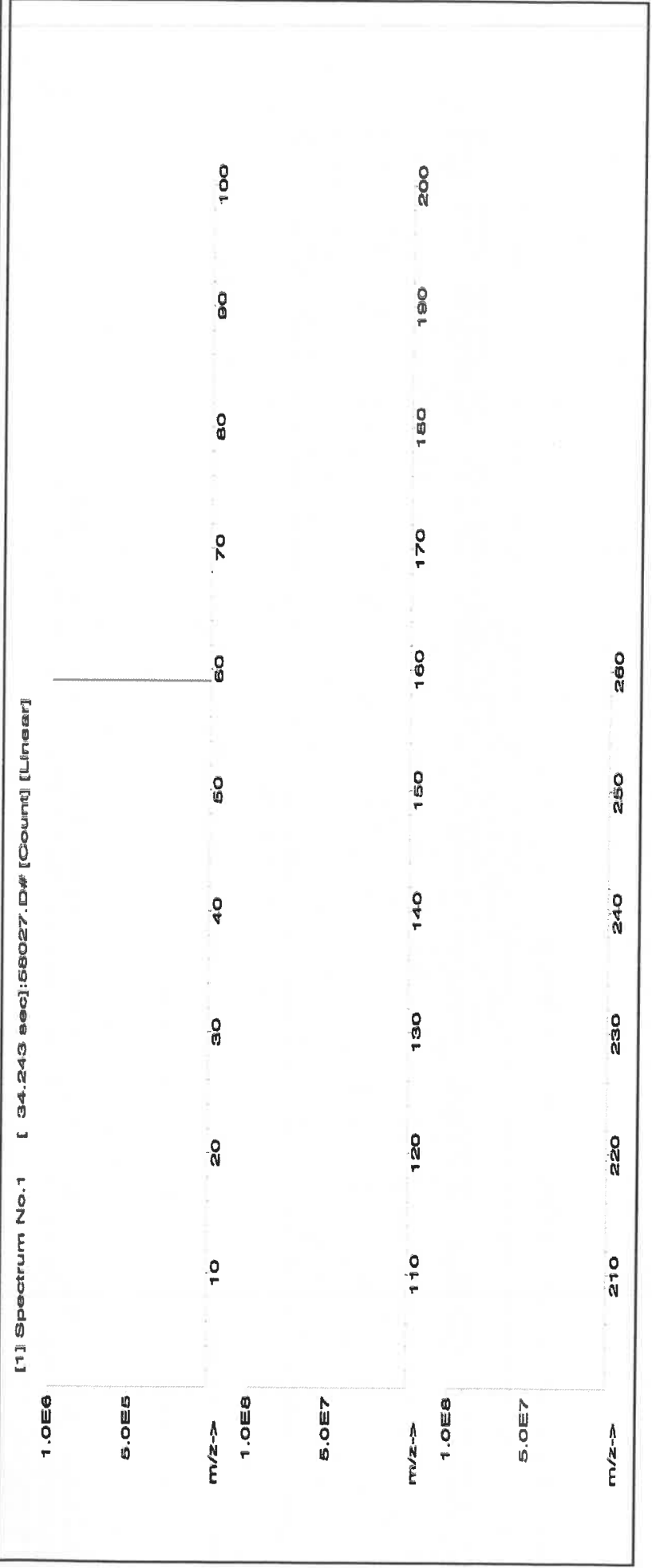
Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas

SDS Information

Expanded Uncertainty +/- (µg/mL)
Final Conc. (µg/mL)
Initial Conc. (µg/mL)
Nominal Conc. (µg/mL)
Pipette (mL)
Initial Vol. (mL)
Dilution Factor
Part Number
Lot Number

(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	<0.02	Os	<0.01	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	<0.2	Na	<0.02	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	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	<0.2	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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- * Standards are certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57033
111323
Arsenic (As)

Lot #
Solvent:

24002546
Nitric Acid

2.0%

80.0

Nitric Acid

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):

111326
Ambient (20 °C)
1000

NIST Test Number:
Volume shown below was diluted to (mL):

6UTB
4000.0

5E-05
Balance Uncertainty
0.06
Flask Uncertainty

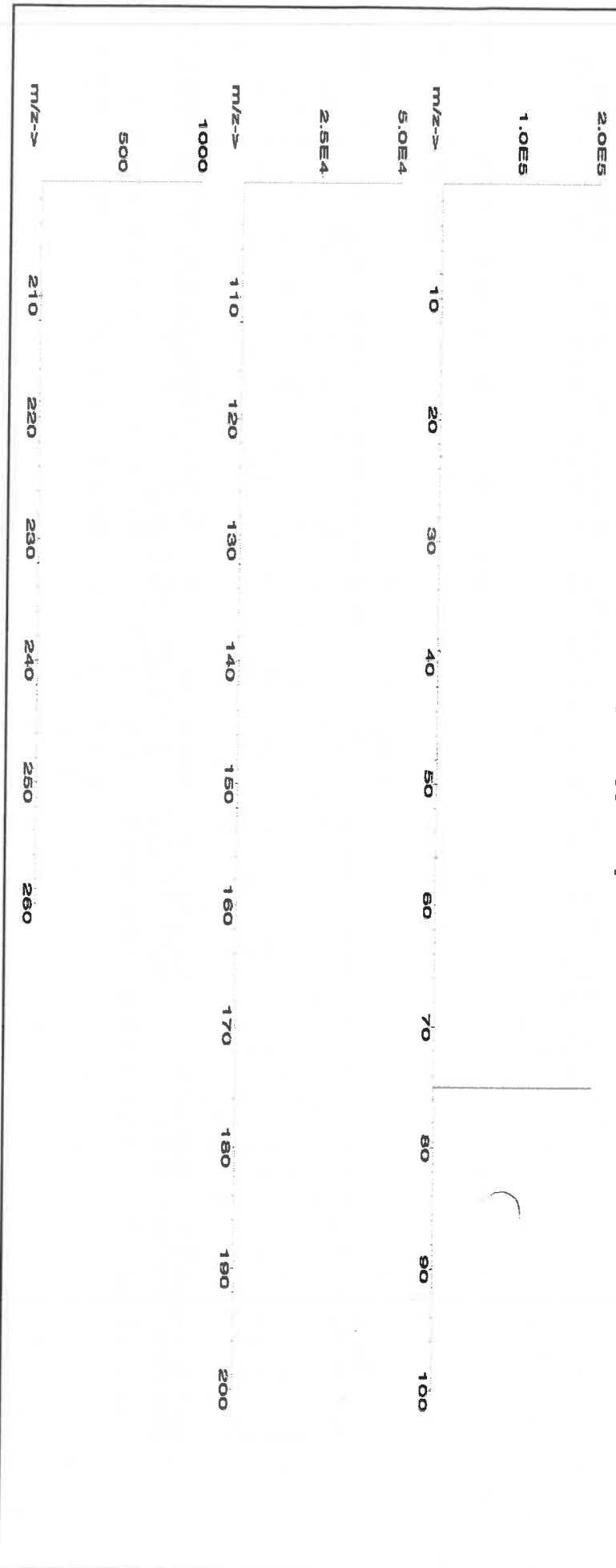
Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rendas	111323

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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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	or-rat 500 mg/kg	3103a
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[1] Spectrum No. 1 [34.433 sec]:57033.D# [Count] [Linear]





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	Pt	<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	Tl _h	<0.02	Yb	<0.02
Bc	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **57005**
Lot Number: **071123**
Description: **Boron (B)**

Solvent: MKB0857V Ammonium hydroxide

Lot #

AI: 021009124 M5814

Formulated By:	Benson Chan
Reviewed By:	Pedro L. Rientas
071123	

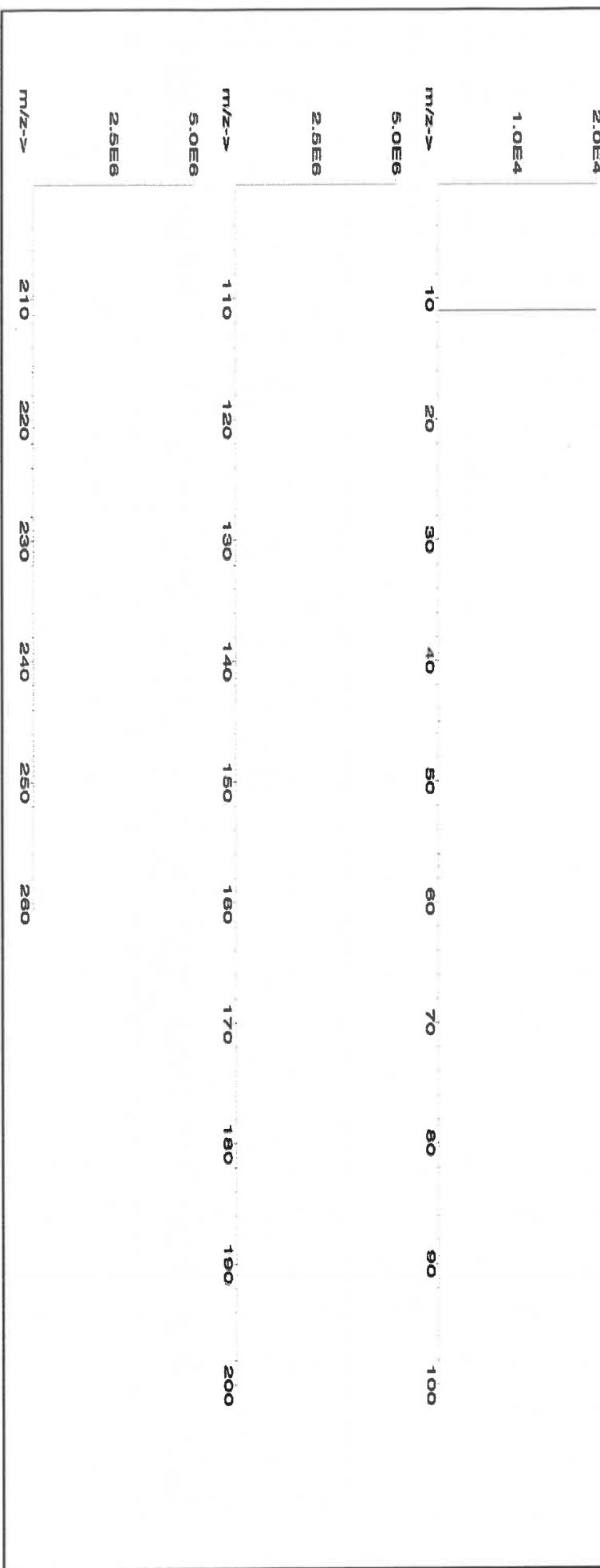
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48
5E-05 Balance Uncertainty
0.058 Flask Uncertainty
2.0% 40.0 Ammonium hydroxide (mL)

SDS Information

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Boric acid (B) IN018 BV082018A1 1000 99.999 0.10 17.3 11.55772 11.56201 1000.4 2.0 10043-35-3 2 mg/m3 or-nat 2660 mg/kg 3107

[1] Spectrum No. 1 [12.275 sec]:56105.D# [Count] [Linear]





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	Pt	<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.
- * 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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: 57115
Lot Number: 041723
Description: Phosphorous (P)

Solvent: 21110221 Nitric Acid

Lot #

R102109124 M5815

Expiration Date: 041726
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

2% 40.0 (mL) Nitric Acid

Weight shown below was diluted to (mL): 2000.02 0.058 Balance Uncertainty Flask Uncertainty

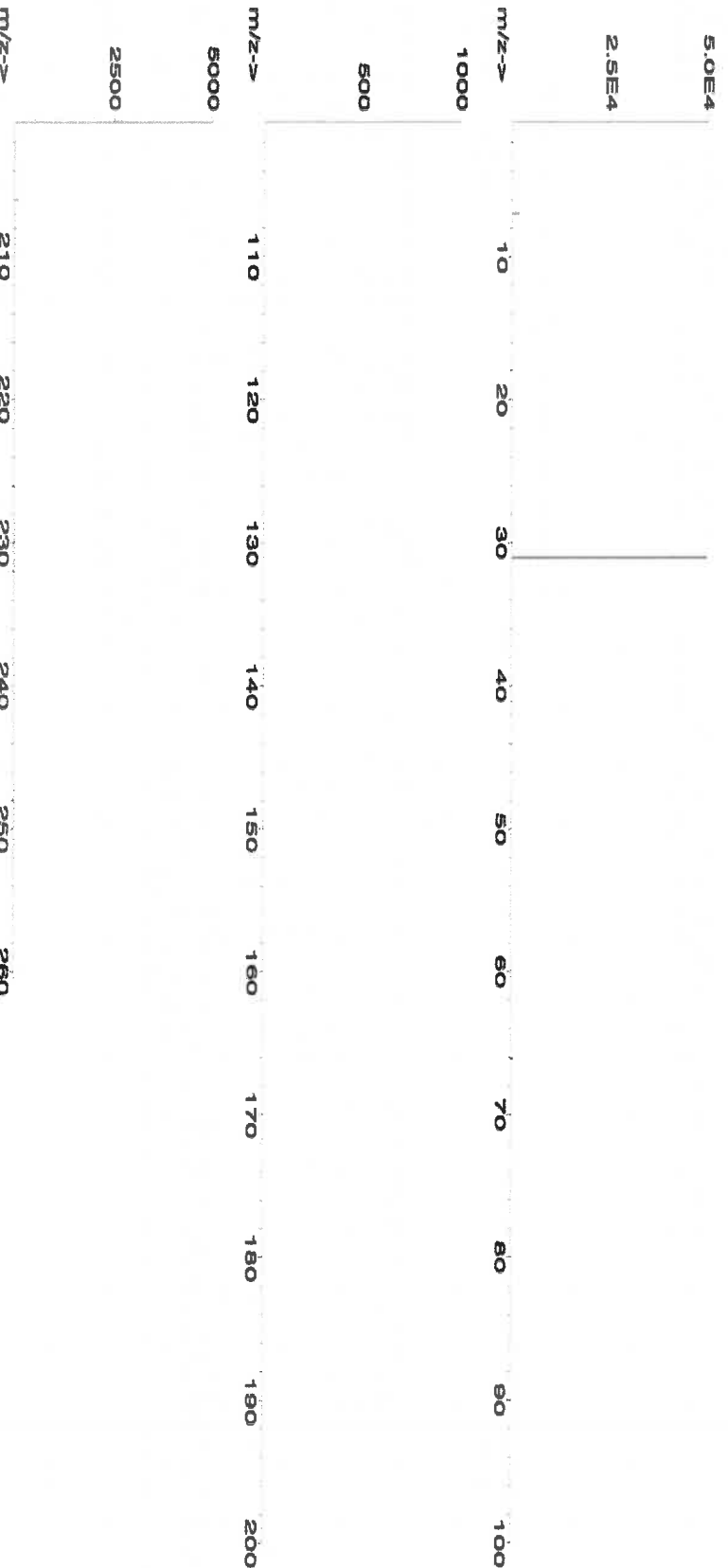
Formulated By: Lawrence Barry	041723
Reviewed By: Pedro L. Rentas	041723

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Ammonium dihydrogen phosphate (P) IN008 PVR2019A1 10000 99.999 0.10 27.5 72.7287 72.7289 10000.0 20.0 7722-76-1 5 mg/m3 or-hal >2000mg/kg 3186

[1] Spectrum No.1 [12.074 sec]:58115.D# [Count] [Linear]





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	Pt	<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:

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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57016
122923
Sulfur (S)

Lot #

ASTM Type 1 Water

Formulated By:	Benson Chan
122923	
Reviewed By:	Pedro L. Rentas
122923	

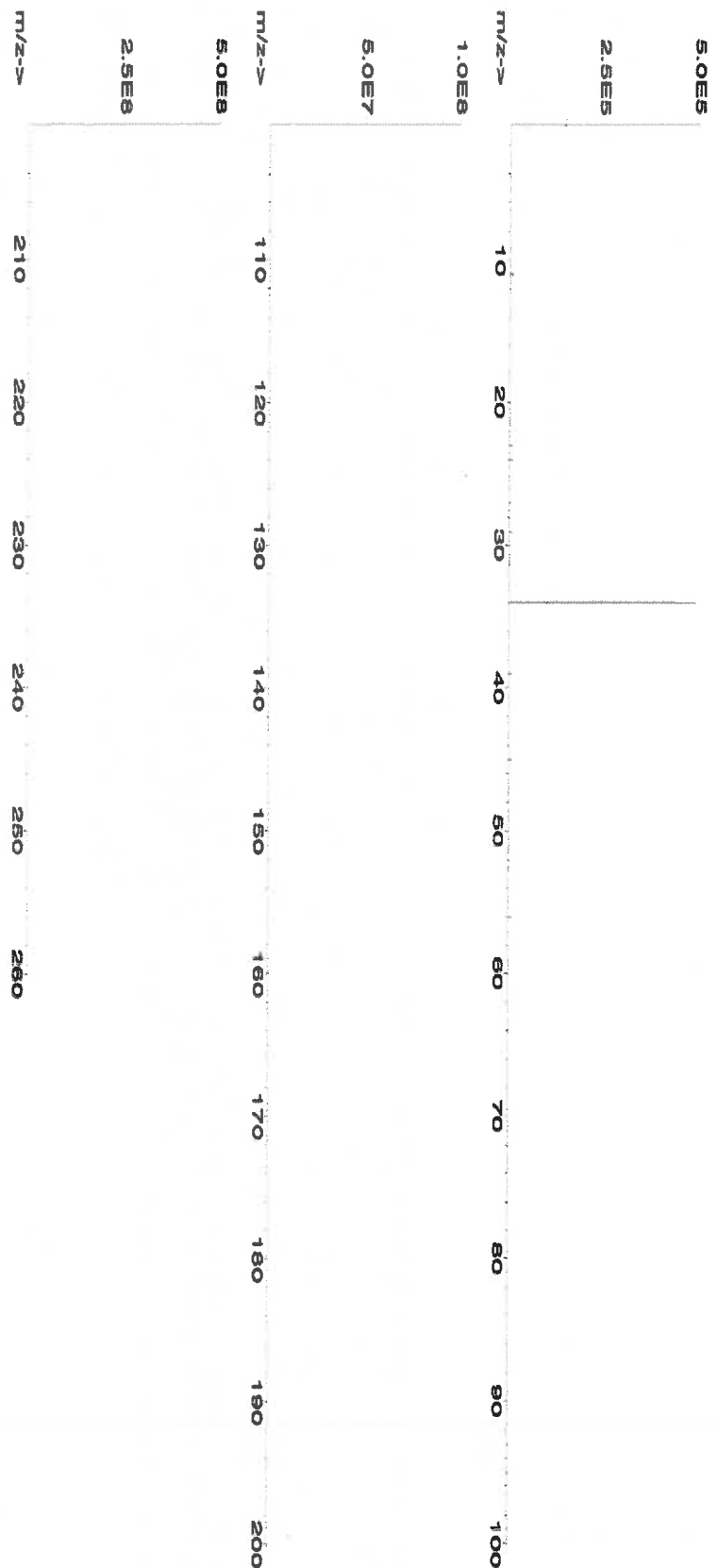
Expiration Date: 122926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6L7B
Weight shown below was diluted to (mL): 4000.0
SE-05 Balance Uncertainty
0.06 Flask Uncertainty

Compound

RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Ammonium sulfate (S) IN117 SLBR725V 1000 99.9 0.10 24.3 16.4979 16.4980 1000.0 2.0 7783-20-2 NA 0.01-0.1 4250mg/kg 3181

[1] Spectrum No. 1 [33.603 sec]:57016.D# [Count] [Linear]





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	La	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Ba	<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	Ru	<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	S	<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	Ta	<0.02	Ti	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **57116**
Lot Number: **071123**
Description: **Sulfur (S)**

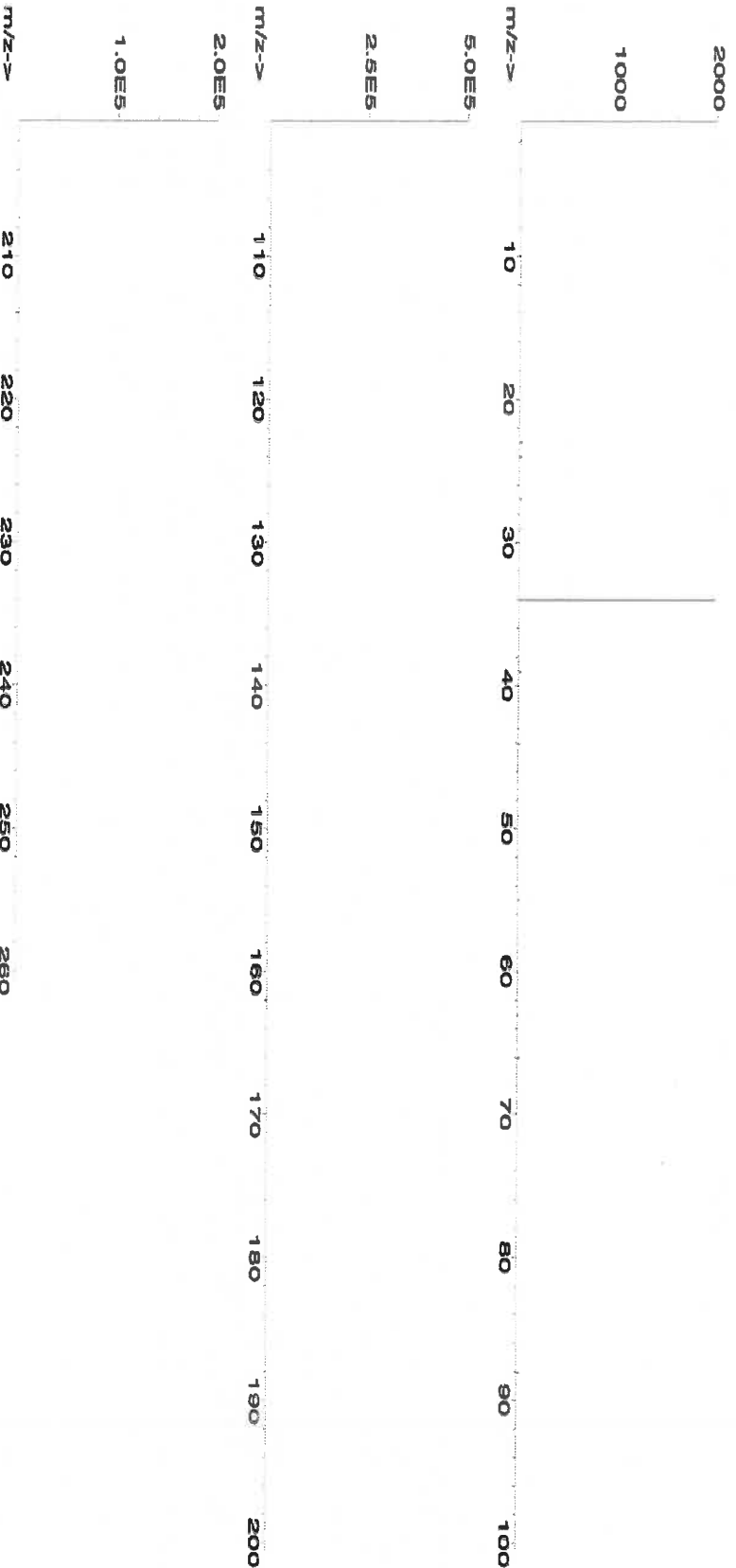
Lot #
Solvent: 071123
ASTM Type 1 Water

Formulated By:	Lawrence Barry
071123	
Reviewed By:	Pedro L. Rentas
071123	

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

SDS Information									
Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)
Ammonium sulfate (S)	IN117 SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4692	10000.1	20.0
						7763-20-2	NA		oral 4250mg/kg 3181

[1] Spectrum No. 1 [24.004 sec]:58116.D# [Count] [Linear]





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	Pt	<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	Pr	<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

Physical Characterization:

(T)= Target analyte

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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **57014**
Lot Number: **122023**
Description: **Silicon (Si)**

Solvent: **24002546 Nitric Acid**

Lot #

R: 02/09/24 M5818

Expiration Date: **122026**

2% **40.0 (mL)** **Nitric Acid**

Recommended Storage: **Ambient (20 °C)**

Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6UTB**

SE-05 Balance Uncertainty

Weight shown below was diluted to (mL): **1999.48 0.058 Flask Uncertainty**

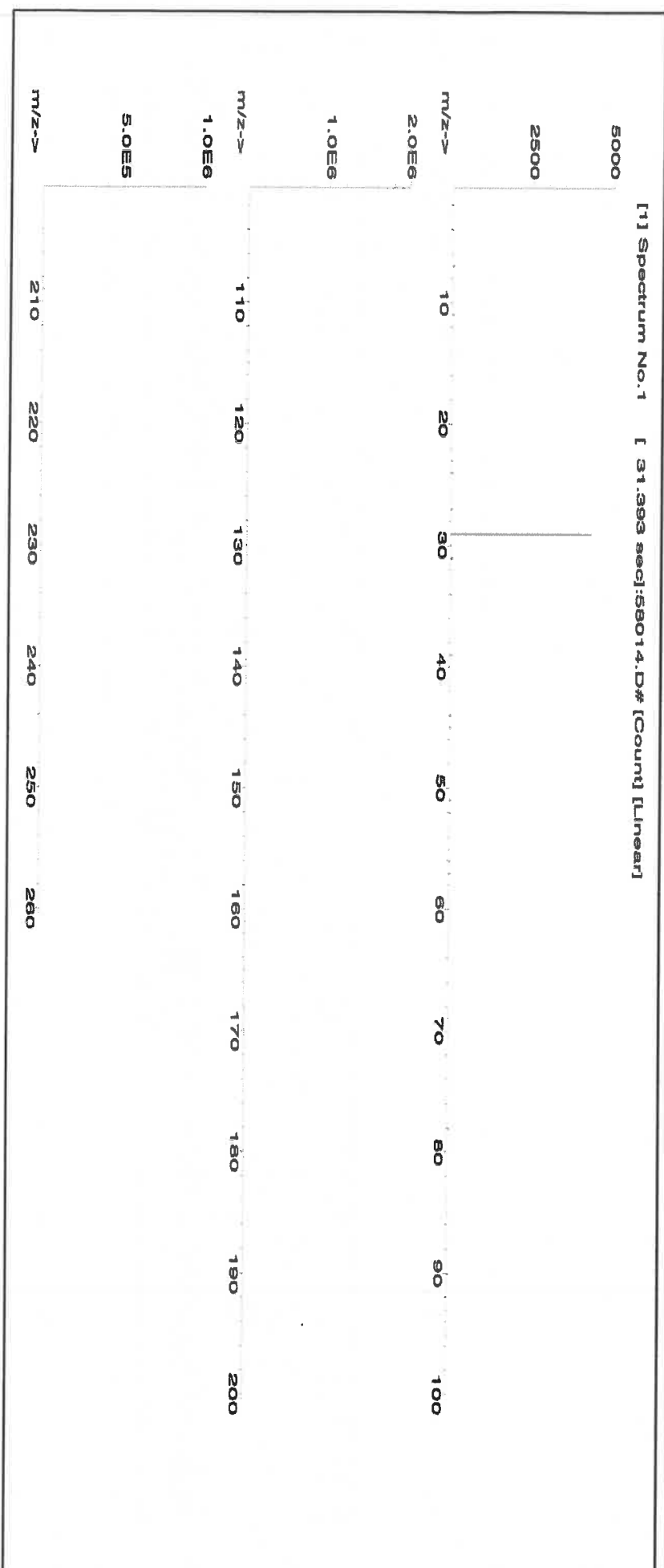
<i>Aleah O Brady</i>	
Formulated By:	Aleah O Brady
Reviewed By:	<i>Pedro L. Rentas</i>
	Pedro L. Rentas
	122023

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Ammonium hexafluorosilicate (Si) IN009 S1D08022A1 1000 99.999 0.10 14.4 13.8854 13.8855 1000.0 2.0 18919-19-0 2.5 mg/m3 off-mus 70 mg/kg NA

[1] Spectrum No. 1 [31.393 sec; 158014.D# [Count] [Linear]





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	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	T	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Bu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Ru	<0.02	Ag	<0.02	Ti	<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	Tl	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Solvent: 24002546 Nitric Acid

2% 60.0 (mL) Nitric Acid

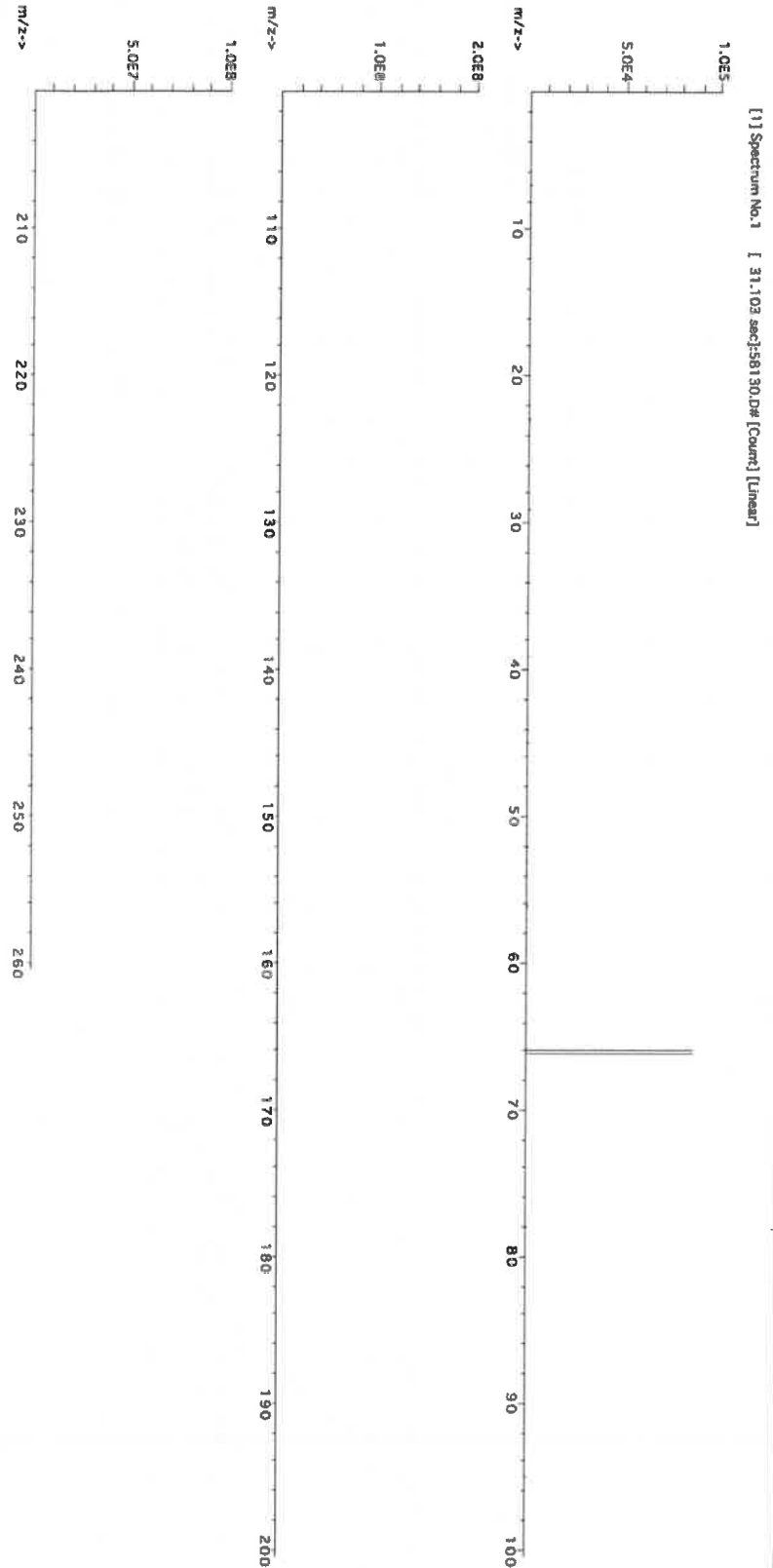
Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 3000.4 0.06 Balance Uncertainty Flask Uncertainty

Formulated By:	Benson Chan
Reviewed By:	Pedro L. Reintias
111623	

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LDSO	NIST SRM
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1. Zinc nitrate hexahydrate (Zn) IN016 ZNE03021A1 1000 99.999 0.10 24.3 12.3475 12.3502 1000.2 2.0 10196-16-6 1 mg/mL 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	Bu	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **57015**
Lot Number: **091123**
Description: **Phosphorous (P)**

Solvent: **24002546 Nitric Acid**

Lot #

R: 02109124 M5820

Formulated By:	Lawrence Barry
	091123
Reviewed By:	Pedro L. Rentas
	091123

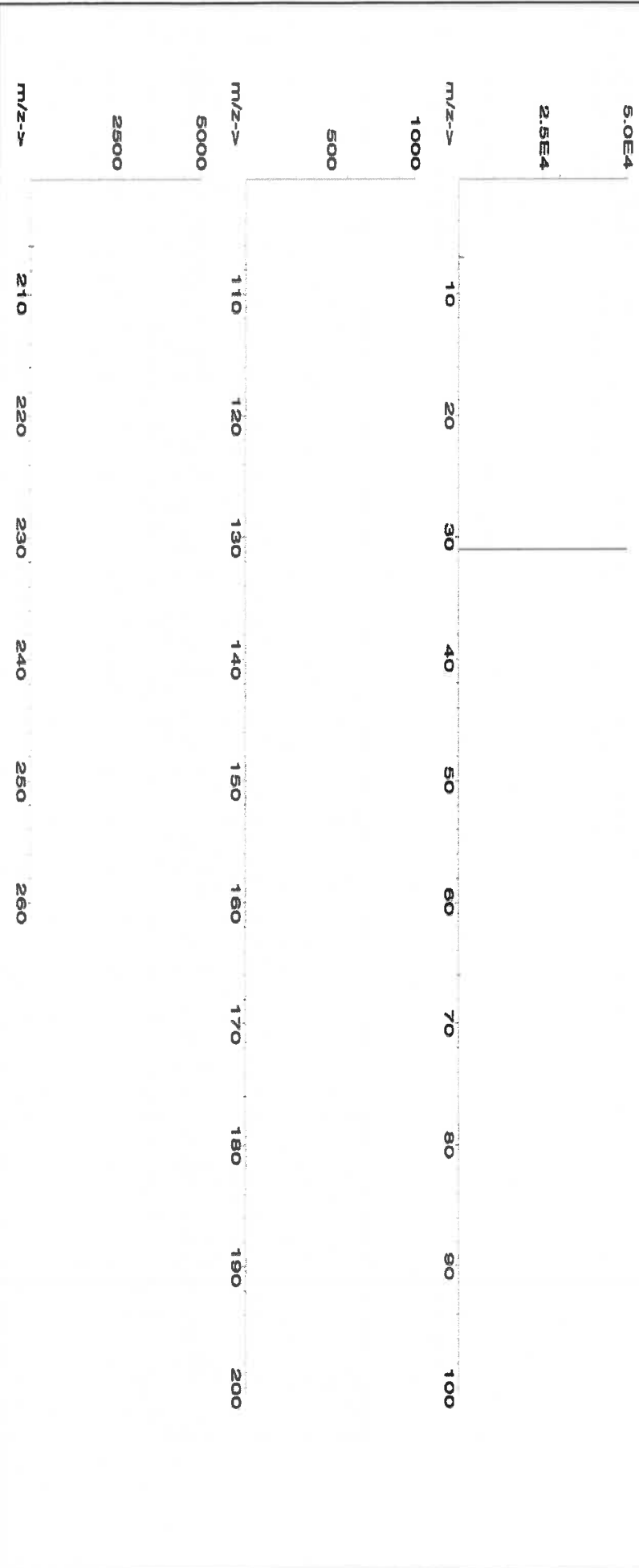
Expiration Date: **091126**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6LJB**
Weight shown below was diluted to (mL): **2000.02**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
-----	------------	-----------------------	------------	------------------------	-----------	-------------------	-------------------	----------------------	----------------------------------	------	----------------	------	----------

1. Ammonium dihydrogen phosphate (P) IN008 PY062019A1 1000 99.999 0.10 27.5 7.2729 7.2730 1000.0 2.0 7722-76-1 5 mg/m3 xH-rat >2000mg/kg 3186

[1] Spectrum No.1 [12.074 sec]:58115.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

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	Tc	<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	Sa	<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.
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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).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent



MS824
MS

Material No.: 3624-01

Batch No.: 0000281938

Manufactured Date: 2021-06-07

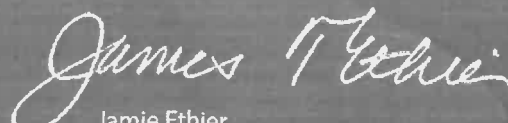
Retest Date: 2026-06-07

Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	$\geq 99.0 \%$	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	$\leq 0.005 \%$	0.003 %
Iodide (I)	$\leq 0.002 \%$	< 0.002 %
Bromide (Br)	$\leq 0.01 \%$	< 0.01 %
Chlorate and Nitrate (as NO ₃)	$\leq 0.003 \%$	< 0.001 %
ACS - Phosphate (PO ₄)	$\leq 5 \text{ ppm}$	< 5 ppm
Sulfate (SO ₄)	$\leq 0.004 \%$	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	$\leq 5 \text{ ppm}$	< 5 ppm
Iron (Fe)	$\leq 2 \text{ ppm}$	< 1 ppm
Calcium (Ca)	$\leq 0.002 \%$	< 0.001 %
Magnesium (Mg)	$\leq 0.001 \%$	< 0.001 %
Potassium (K)	$\leq 0.005 \%$	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


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



QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

QATS LABORATORY INORGANIC REFERENCE MATERIAL
INITIAL CALIBRATION VERIFICATION SOLUTIONS
(ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.



M5528-32
M5953
3/30/23

(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.





QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

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



CERTIFIED WEIGHT REPORT:

MS962 **R10614124**

Lot # **24002546** Solvent: **Nitric Acid**

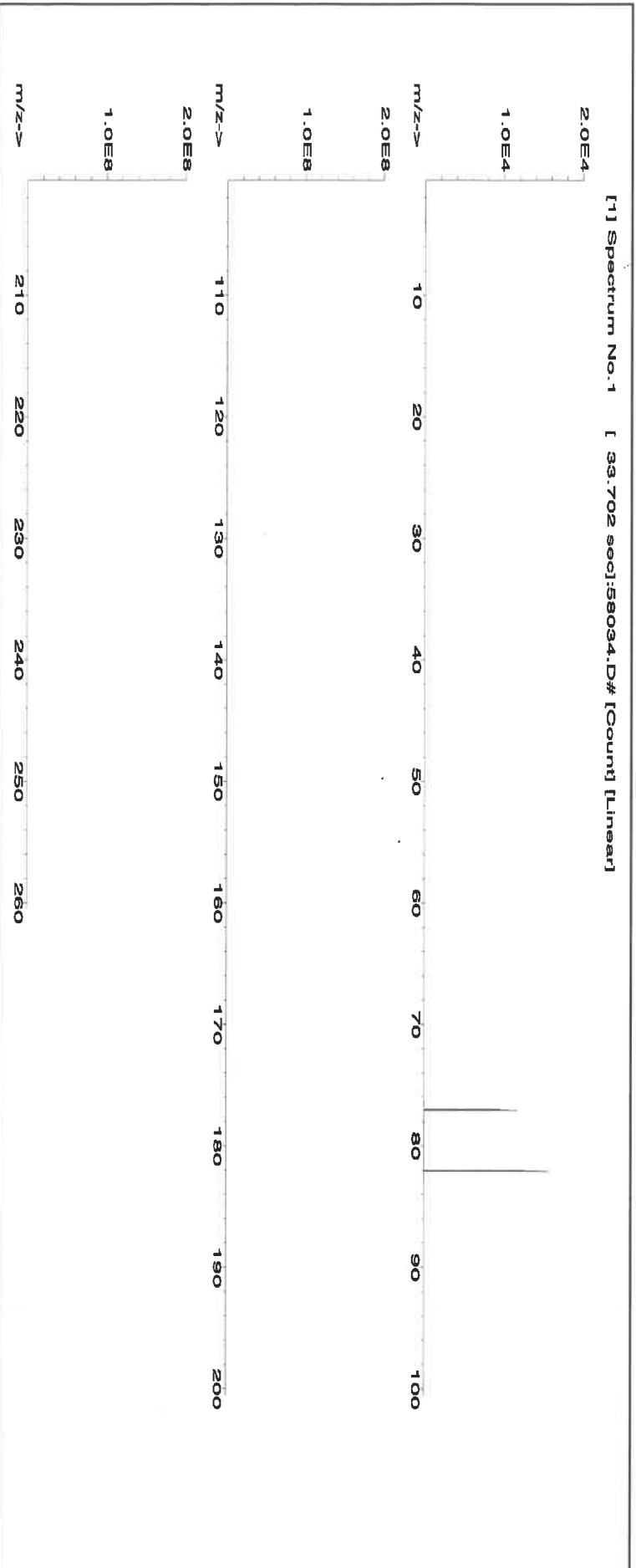
Part Number: **57034**
Lot Number: **060624**
Description: **Selenium (Se)**

2.0% 40.0 (mL) Nitric Acid

Expiration Date: **060627**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**
Volume shown below was diluted to (mL): **2000.07**
SE-05 Balance Uncertainty **0.100** Flask Uncertainty

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rantas	060624

SDS Information									
Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)
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	or-tral 6700 mg/kg	31.49





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	Pt	<0.02	Se	T	Tb	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	U	<0.02
As	<0.2	Ce	<0.02	Ba	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2	Th	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sb	<0.02	Sr	<0.02	Tm	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	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	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com



Certified Reference Material CRM

M5970 M5971



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT:

Part Number: **57003**
Lot Number: **062124**
Description: **Lithium (Li)**
Expiration Date: **06/127**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**
Volume shown below was diluted to (mL): **250.11**
SE-05 Balance Uncertainty
0.016 Flask Uncertainty

Lot # **24002546**
Solvent: **Nitric Acid**

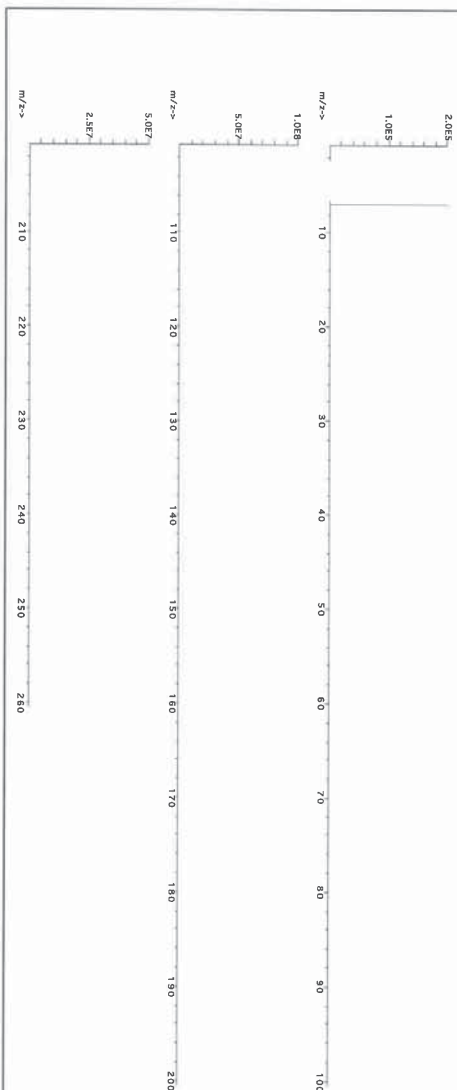
2.0% 5.0 (mL) Nitric Acid

Microvial Capable	
Formulated By:	Giovanni Esposito
Reviewed By:	Pedro L. Parias
CAS#	OSHA PEL (TWA)
LD50	
SN#	062124

Compound		Part		Lot		Dilution		Initial		Uncertainty		Nominal		Initial		Final		Expanded		SDS Information		NIST	
Number	Factor	Number	Factor	Number	Factor	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Uncertainty	± (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SN#

1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	1000.0	2.0	7790-68-4	5 mg/m3	01-Hal 1428 mg/kg	NA
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[1] Spectrum No. 1 [32.093 sec; 15000.00# Count; 1.00e4]



Certificate of Analysis



Refine your results. Redefine your industry.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

R: 2/22/24

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).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution

Catalog Number: CGT1

Lot Number: T2-T1719972

Matrix: 2% (v/v) HNO₃

Value / Analyte(s): tr. HF

Starting Material: 1 000 µg/mL ea.

Starting Material: Titanium

Starting Material Lot#: T1 Metal

Starting Material Purity: 2094

Certified Value: 99.9975%

Density: 1.012 g/mL (measured at 20 ± 4 °C)

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:

$X_{CRM/RM} = \sum (w_i X_i) / \sum w_i$
 X_i = mean of Assay Method i with standard uncertainty $u_{CRM,i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance

$w_i = (1/u_{CRM,i}^2) / \sum (1/u_{CRM,i}^2)$
 $u_{CRM} = \sqrt{u_{CRM,A}^2 + u_{CRM,B}^2 + u_{CRM,C}^2 + \dots}$

$u_{CRM} = \sqrt{u_{CRM,A}^2 + u_{CRM,B}^2 + u_{CRM,C}^2 + \dots}$
 $u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$

$u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$
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$u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$
 $u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$

$u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$
 $u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$

$u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$
 $u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$

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 $u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$

$u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$
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$u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$
 $u_{CRM,i} = \sqrt{u_{CRM,i,A}^2 + u_{CRM,i,B}^2 + u_{CRM,i,C}^2 + \dots}$

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 UHPA-filtered Clean Room. An UHPA-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
M 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	<	0.000986			
O B	<	0.008929	M Ge	<	0.002146	M Os	<	0.000269	O Sr	<	0.000986			
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 Th	<	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	<	0.000268			
M Co	<	0.000268	M K	<	0.001172	M Rb	<	0.000268	M Tl	<	0.000268			
M Cr	<	0.000752	O Li	<	0.000268	M Re	<	0.000268	M Tm	<	0.000268			
M Cs	<	0.000268	M Lu	<	0.000268	M Rh	<	0.000268	M U	<	0.000268			
O Cu	<	0.010890	O Mg	<	0.005445	I S	<	0.006976	M Y	<	0.002146			
M Dy	<	0.000268	O Mn	<	0.003267	M Sb	<	0.004900	M Yb	<	0.000536			
M Er	<	0.000268	M Mo	<	0.000774	O Sc	<	0.004900	M Yb	<	0.000536			

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: 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); K₂SiO₃ - no KF if silica not present); Organic Matrices (Dry ash at 450°C in P10 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 crystaline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	14 ppt
ICP-MS 48 amu	N/A	32S160, 32S14N,
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	14N17N2, 36Ar12C,
ICP-OES 334.941 nm	0.0038 / 0.00028 µg/mL	48Ca, [96X=2
ICP-OES 336.121 nm	0.0053 / 0.00034 µg/mL	14N17N2, 36Ar12C,
HF Note: This standard should not be prepared or stored in glass.		W, Mo, Co
		Nb, Ta, Cr, U
		Ce, Ar, Ni
		Ru]]
		(where X = Zr, Mo,

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: 800.868.6786; 540.565.3030; Fax: 540.565.3030; Email: 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 Kozlikowski
Manager, Quality Control

TD978L

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul Gaines



Certified Reference Material CRM



45982

R: 6/11/24

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57038
031524
Strontium (Sr)

Solvent: 24002546 Nitric Acid

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

031527
Ambient (20 °C)
1000
6UTB
5E-05 Balance Uncertainty
0.100 Flask Uncertainty

Weight shown below was diluted to (mL): 2000.07

Lot #

2% 40.0 Nitric Acid
(mL)

Formulated By:	Benson Chan	031524
Reviewed By:	Pedro L. Rentas	031524

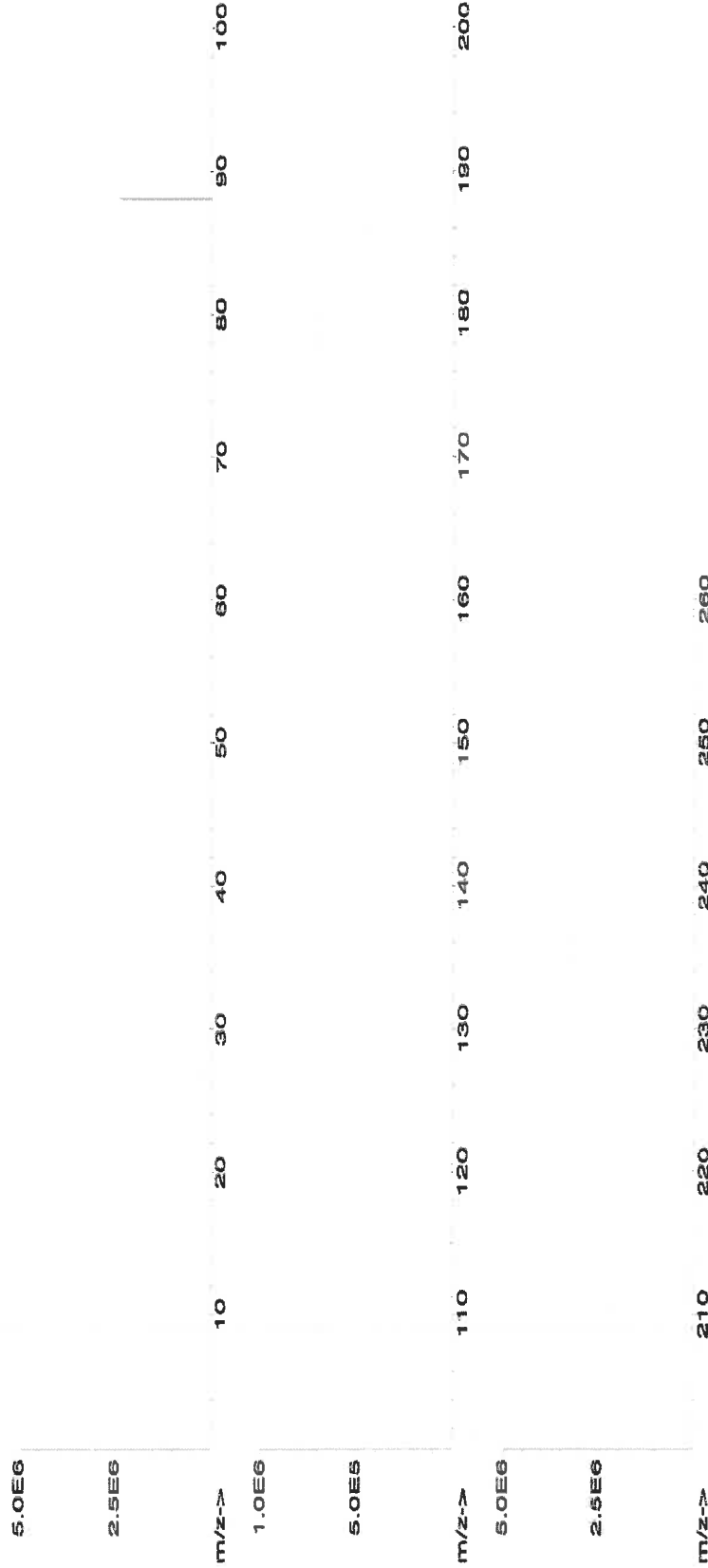
SDS Information

Expanded Uncertainty
(Solute Safety Info. On Attached pg.)
NIST SRM

Actual Conc. (µg/mL)
Actual Weight (g)
Target Weight (g)
Assay (%)
Purity (%)
Nominal Conc. (µg/mL)
Lot Number
RM#

1. Strontium nitrate (Sr) IN017 SR2022018A1 1000 89.997 0.10 41.2 4.85470 4.85502 1000.1 2.0 10042-76-9 NA orl-rat >2000mg/kg 3153a

[1] Spectrum No.1 [14.495 sec]:58136.D# [Count] [Linear]





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	Pt	<0.02	Se	<0.2	Tb	<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
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.02	Os	<0.01	Rh	<0.02	Ag	<0.02	Ti	<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
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<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
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
																W	<0.02
																U	<0.02
																V	<0.02
																Yb	<0.02
																Y	<0.02
																Zn	<0.02
																Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

[Signature]

- * 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 certified (+/-) 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).

2024 JUN 7 3:58 PM

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

M5984
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).



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:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

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:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2(u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = 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

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k(u_{char a}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = 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 PtO 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





Refine your results. Redefine your industry.

Certificate of Analysis

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M5985
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).



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:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

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:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char i}^2)]^{1/2}$ 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

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

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	<	0.000760	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 PtO followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; Info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Certified Reference Material CRM
R: 01/03/24 M6033



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://AbsoluteStandards.com

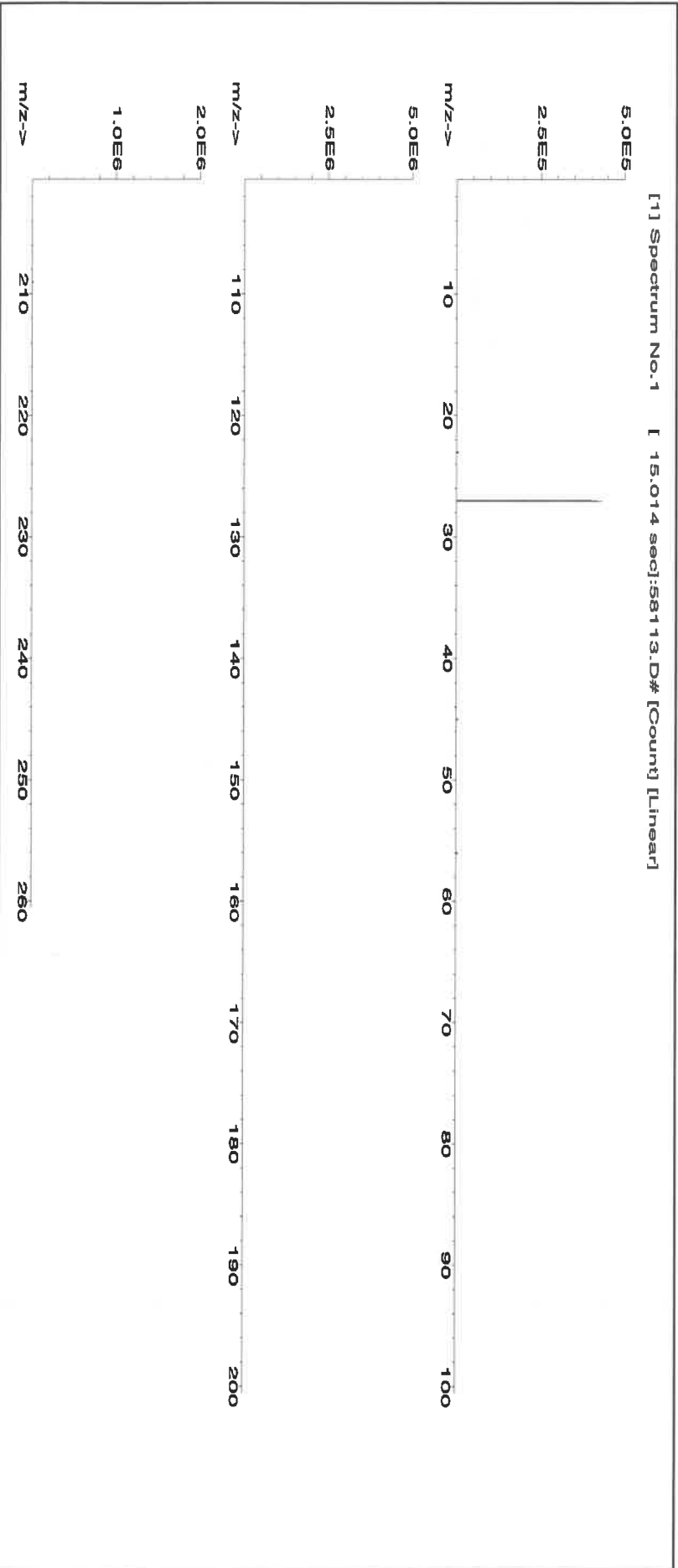
CERTIFIED WEIGHT REPORT:

Part Number: 58113
Lot Number: 011623
Description: Aluminum (Al)
Expiration Date: 011626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6LUTB
Weight shown below was diluted to (mL): 2000.02
Solvent: 20510011 Nitric Acid
Lot #
2% 40.0 (mL) Nitric Acid
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	<i>Pedro L. Rentas</i>
	Pedro L. Rentas
	011623

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Aluminum nitrate nonahydrate (Al) IN022 ALUM12021A1 10000 99.999 0.10 7.30 273.9779 274.0078 10001.1 20.0 7784-27-2 2 mg/m³ or rat 3671 mg/kg 3101a



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

Receive date
9/29/24
Met diag.

 avantor™



Material No.: 9530-33
Batch No.: 22F0762009
Manufactured Date: 2022-05-10
Retest Date: 2027-05-09
Revision No.: 0

M6109
M6110
M6111

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid–base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 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	0.8 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	14.9 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	< 0.4 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	0.2 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



Material No.: 9530-33
Batch No.: 22F0762009

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	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – 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	< 0.2 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	1.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	0.7 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	0.2 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	< 0.1 ppb

>>> Continued on page 3 >>>

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

 **avantorsm**

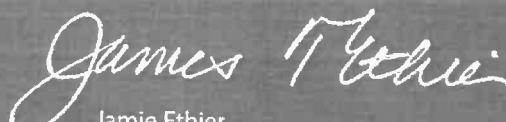


Material No.: 9530-33
Batch No.: 22F0762009

Test	Specification	Result
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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


Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™



Receive:
9/29/24
met dig

Material No.: 9606-03
Batch No.: 24B1362001
Manufactured Date: 2024-01-25
Retest Date: 2029-01-23
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.6 %
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	< 0.2 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	< 50 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™**



Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 10 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	3 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	1 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantorsTM**

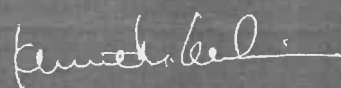


Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
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For Microelectronic Use

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



Ken Koehnlein
Sr. Manager, Quality Assurance

Nitric Acid 69%
CMOS

avantor™



Receive:
9/29/24
met dig

Material No.: 9606-03
Batch No.: 24B1362001
Manufactured Date: 2024-01-25
Retest Date: 2029-01-23
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.6 %
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	< 0.2 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	< 50 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™**



Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 10 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	3 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	1 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantorsTM**

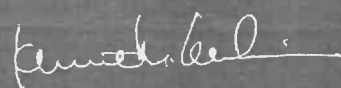


Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
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For Microelectronic Use

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



Ken Koehnlein
Sr. Manager, Quality Assurance

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

 **avantor™**



Review → 10/9/24
Met dig

Material No.: 9530-33
Batch No.: 22E1662006
Manufactured Date: 2022-04-11
Retest Date: 2027-04-10
Revision No.: 0

M6118

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 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	< 0.2 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	37.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	< 0.4 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	0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	1 ppb

>>> Continued on page 2 >>>

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



Material No.: 9530-33
Batch No.: 22E1662006

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	1.0 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	< 0.2 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	< 0.4 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	1.9 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	< 0.3 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

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

 **avantorsm**

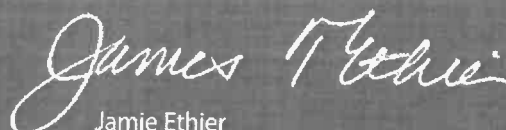


Material No.: 9530-33
Batch No.: 22E1662006

Test	Specification	Result
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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


Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™



R → 10/13/24
Metali g

Material No.: 9606-03
Batch No.: 2310662003
Manufactured Date: 2023-08-21
Retest Date: 2028-08-19
Revision No.: 0

M 6120

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.5 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	10
Residue after Ignition	≤ 2 ppm	< 2 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.08 ppm
Phosphate (PO ₄)	≤ 0.10 ppm	< 0.10 ppm
Sulfate (SO ₄)	≤ 0.2 ppm	0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 40.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 5.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 50 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	< 50.0 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	30.0 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 20 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 20 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 100 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 40.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 20 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 20.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS



Material No.: 9606-03
Batch No.: 2310662003

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

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantor™**

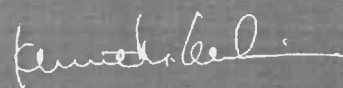


Material No.: 9606-03
Batch No.: 2310662003

Test	Specification	Result
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For Microelectronic Use

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



Ken Koehnlein
Sr. Manager, Quality Assurance

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

avantor™



R → 16/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	1
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	≤ 0.005 %	< 0.005
ACS – Extractable Organic Substances	≤ 5 ppm	1
ACS – Free Chlorine (as Cl ₂)	≤ 0.5 ppm	< 0.5
Phosphate (PO ₄)	≤ 0.05 ppm	< 0.03
Sulfate (SO ₄)	≤ 0.5 ppm	< 0.3
Sulfite (SO ₃)	≤ 0.8 ppm	0.3
Ammonium (NH ₄)	≤ 3 ppm	< 1
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	≤ 5 ppb	< 3
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 0.2
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	29.7
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	< 0.4
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33

Batch No.: 0000275677

Test	Specification	Result
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0
Trace Impurities – Gold (Au)	≤ 4.0 ppb	< 0.2
Heavy Metals (as Pb)	≤ 100 ppb	< 50
Trace Impurities – Iron (Fe)	≤ 15.0 ppb	< 1
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	0.2
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	0.4
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	< 0.2
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0
Trace Impurities – Selenium (Se), For Information Only	ppb	1.0
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	< 5.0
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	< 0.9
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.8
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	0.2
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.3
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use

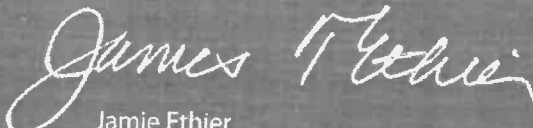
Product Information (not specifications):

Appearance (clear, fuming liquid)

Meets ACS Specifications

Country of Origin: US

Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700



CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 122223
Description: Sodium (Na)

Solvent: 24002546 Nitric Acid

Lot #

<i>Aleah O Brady</i>	
Formulated By:	Aleah O Brady
	122223
<i>Pedro L Rentas</i>	
Reviewed By:	Pedro L Rentas
	122223

Expiration Date: 122226
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

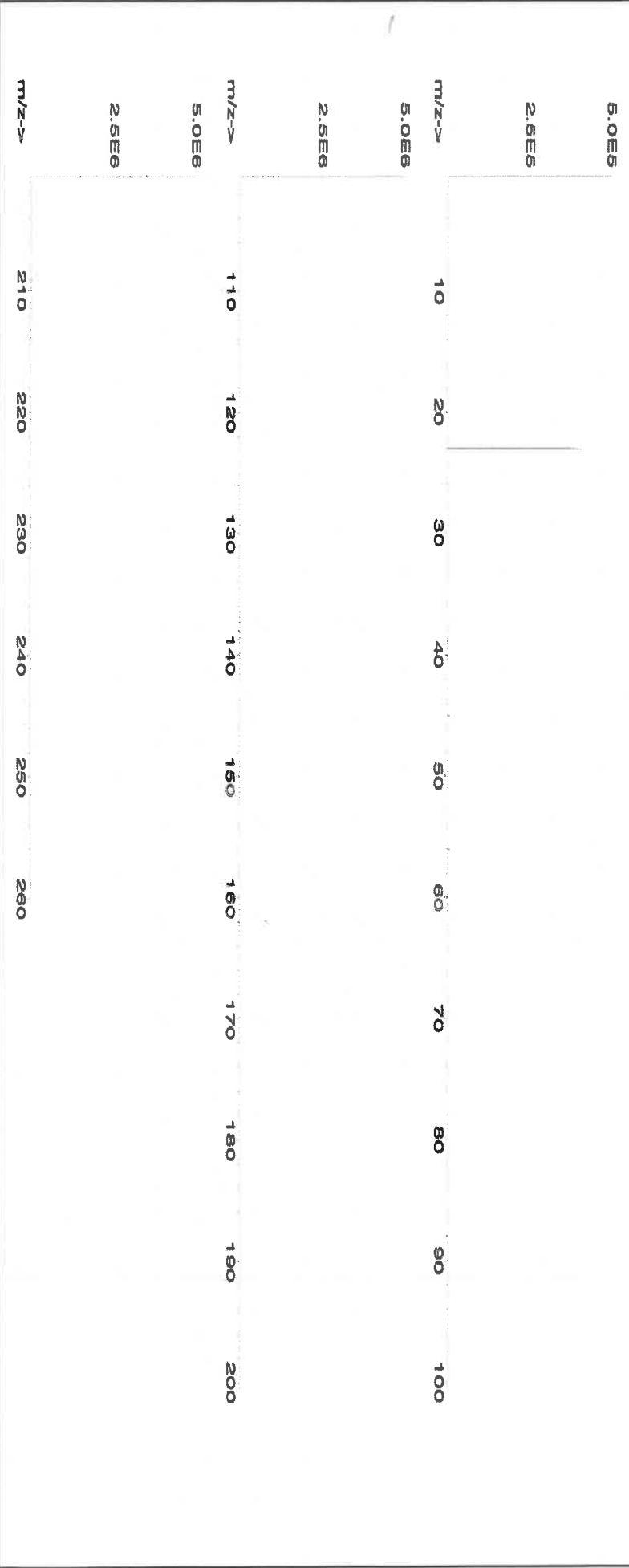
Expanded

SDS Information

Compound	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Uncertainty	(Solvent Safety Info. On Attached pg.)	NIST
RM#	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	SRM

1. Sodium nitrate (Na) IN036 NAV01201511 10000 99.999 0.10 26.9 111.5406 111.5479 10000.7 20.0 7631-99-4 5 mg/m3 or-trat 3430 mg/kg 3152a

[1] Spectrum No.1 [8.935 sec]:58111.D# [Count] [Linear]





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	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<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	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	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.02	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	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	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	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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57051
120523
Antimony (Sb)

Lot #
Solvent:

24002546
Nitric Acid

2.0%
60.0
Nitric Acid
(mL)

Expiration Date:

120526

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6U7B

Volume shown below was diluted to (mL):

3000.41

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

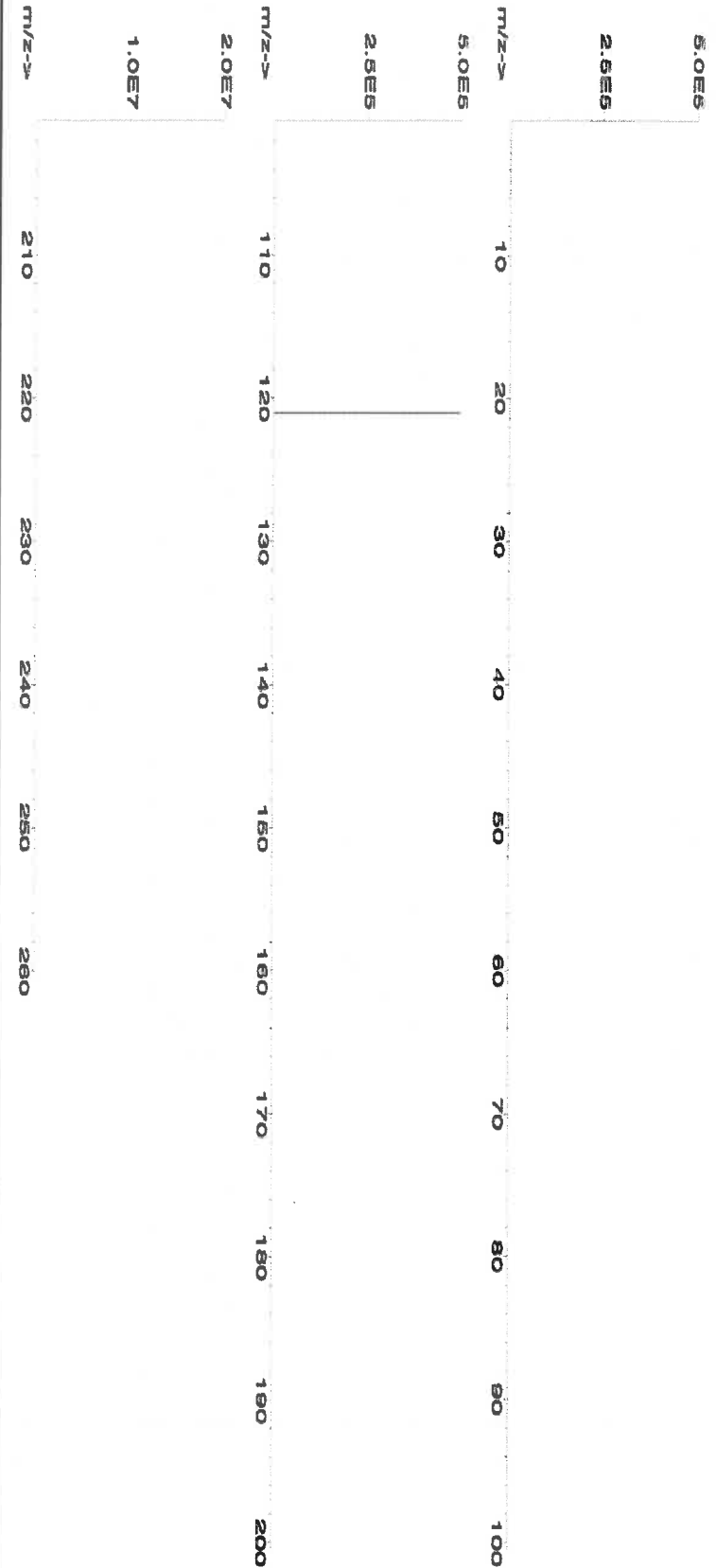
Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rientas	120523

Compound

Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Antimony (Sb) 58151 100923 0.1000 300.0 0.084 1000 10001.4 1000.0 2.1 7440-36-0 0.5 mg/m3 or-rel 7000 mg/kg 3102a

[1] Spectrum No.1 [17.964 sec]:58051.D# [Count] [Linear]





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	Pt	<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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: **57047**
Lot Number: **122823**
Description: **Silver (Ag)**

Lot #
Solvent: 24002546 Nitric Acid

Expiration Date:

122826

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Weight shown below was diluted to (mL):

4000.30

0.058

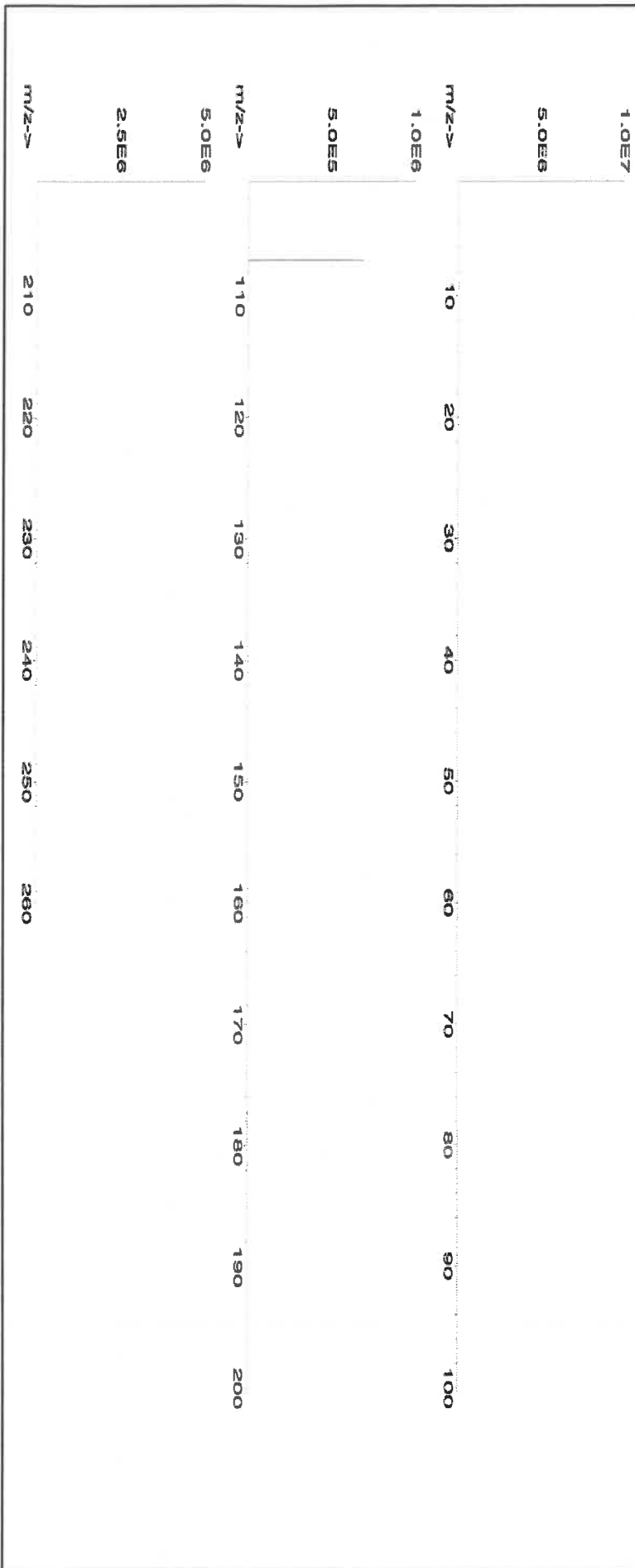
Balance Uncertainty
Flask Uncertainty

Formulated By:	Benson Chan
Reviewed By:	
Pedro L. Rentas	
122823	

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty		CAS#	SDS Information		NIST SRM
										+/- (µg/mL)	(µg/mL)		(Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	

1. Silver nitrate (Ag) IN035 J0612AGA1 1000.0 99.9996 0.10 63.7 6.27992 6.27998 1000.0 2.0 7761-88-8 10 µg/m³ NA 3151

[1] Spectrum No. 1 [14.044 sec]:58147.D# [Count] [Linear]





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	Pt	<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 meghom 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 certified (+/-) 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).



CERTIFIED WEIGHT REPORT:

Part Number: 57081
Lot Number: 062724
Description: Thallium (TI)

Lot #

Solvent: 24002546 Nitric Acid

2% 40.0 Nitric Acid (mL)

Expiration Date:

062727

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Weight shown below was diluted to (mL): 2000.1

5E-05 Balance Uncertainty
0.10 Flask Uncertainty

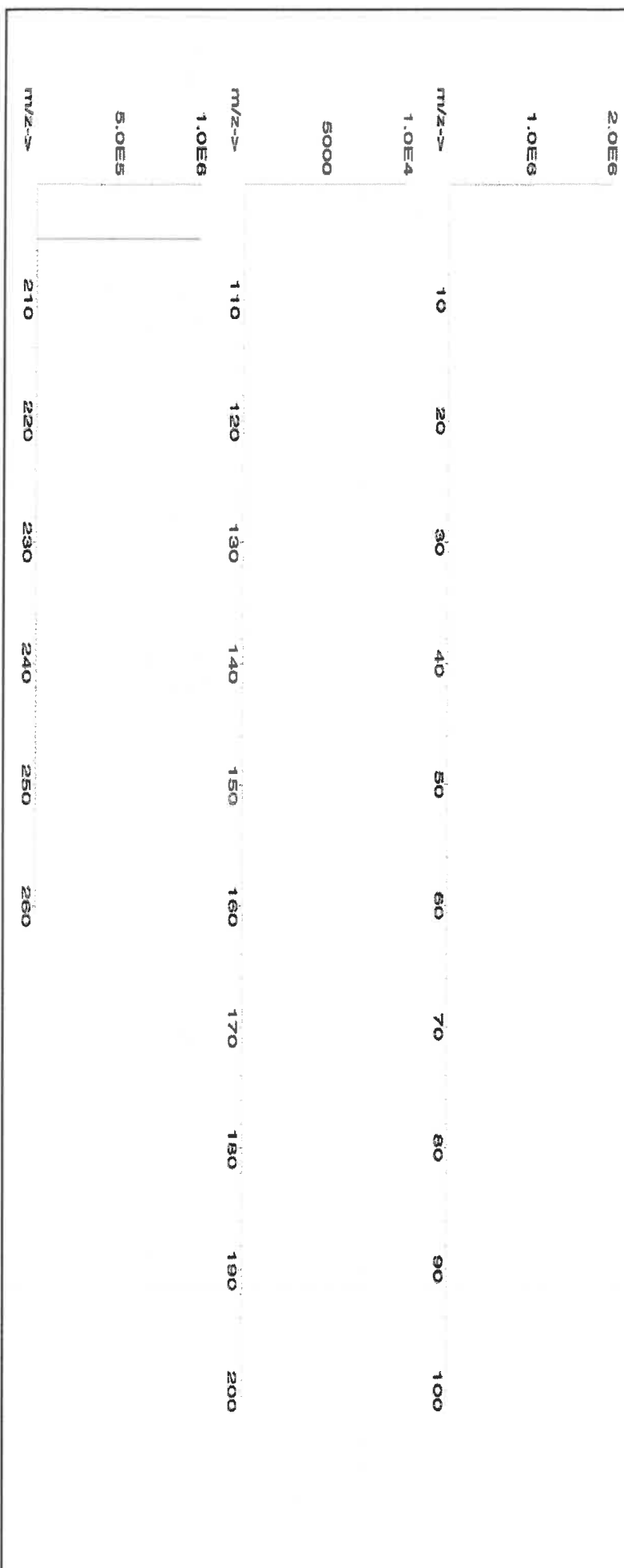
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	062724
Reviewed By:	<i>Pedro L. Renias</i>
	Pedro L. Renias
	062724

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Thallium nitrate (TI) 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

[1] Spectrum No.1 [14.044 sec]:57081.D# [Count] [Linear]





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	Pt	<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	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	Tm	<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	Sn	<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	Ti	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Se	<0.02	Ta	<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 certified (+/-) 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).



Certified Reference Material CRM

M6021



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: **57023**
Lot Number: **062424**
Description: **Vanadium (V)**

Lot # **24002546**
Solvent: **Nitric Acid**

Aleah O'Brady	
Formulated By:	Aleah O'Brady
	062424
Reviewed By:	Pedro L. Rantas
	062424

Expiration Date: **062427**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**

2.0%
40.0 (mL)
Nitric Acid

Volume shown below was diluted to (mL): **2000.3**

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

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.)	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	10000.0	2.2	7803-55-6 0.05 mg/m3	3165

[1] Spectrum No.1 [34.243 sec]:58023.D# [Count] [Linear]

2.0E6	m/z-->	10	20	30	40	50	60	70	80	90	100
1.0E7	m/z-->	10	20	30	40	50	60	70	80	90	100
2.0E7	m/z-->	10	20	30	40	50	60	70	80	90	100
1.0E7	m/z-->	10	20	30	40	50	60	70	80	90	100
5.0E8	m/z-->	110	120	130	140	150	160	170	180	190	200
2.5E8	m/z-->	110	120	130	140	150	160	170	180	190	200
m/z-->	m/z-->	210	220	230	240	250	260				



SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO. **P4822**
QUOTE NO.
COC Number **2040631**

CLIENT INFORMATION

COMPANY: **BAPS** REPORT TO BE SENT TO:
ADDRESS: **2000 Tonnelle Ave**
CITY **North Bergen** STATE: **NJ** ZIP:
ATTENTION:
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: **BAPS Tonnelle Ave**
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

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

DATA DELIVERABLE INFORMATION

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

VOC-TCL vol-10
EPH
TCL+30/TAL

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		E/P	E	E							← Specify Preservatives	
1.	Soil-1	9011		X	11-24	1112	5	X	X								A-HCl	D-NaOH
2.	Soil-1		X			1120	4				X						B-HNO3	E-ICE
3.	Soil-2			X		1134	5	X	X								C-H2SO4	F-OTHER
4.	Soil-2		X			1141	4				X							
5.	Soil-3			X		1151	5	X	X									
6.	Soil-3		X			1159	4				X							
7.	Soil-4			X		1210	5	X	X									
8.	Soil-4		X			1218	4				X							
9.	Soil-5			X		1230	5	X	X									
10.	Soil-5		X			1238	4				X							

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

RELINQUISHED BY SAMPLER: 1. JT	DATE/TIME: 11-12-24	RECEIVED BY: 1.	Conditions of bottles or coolers at receipt: ☒ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.8 °C
RELINQUISHED BY SAMPLER: 2.	DATE/TIME:	RECEIVED BY: 2.	Comments:
RELINQUISHED BY SAMPLER: 3. JT	DATE/TIME: 11-12-24	RECEIVED BY: 3.	Page 1 of 2

CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☐ Picked Up ☐ Field Sampling
Shipment Complete
☐ YES ☐ NO

CHEMTECH

CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO.

QUOTE NO.

COC Number 2040632

P4822

CLIENT INFORMATION

COMPANY: BAPS REPORT TO BE SENT TO:
ADDRESS: 2000 Tonnelle Ave
CITY North Bergen STATE: NJ ZIP:
ATTENTION:
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: BAPS Tonnelle Ave
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

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

DATA DELIVERABLE INFORMATION

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

1 VOC-TCL VOA-10
2 EPH
3 TCL T30/TAL
4
5
6
7
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9		
1.	Soil-6	Soil		X	11/24	1245	5	X	X									
2.	Soil-6	I	X		11/24	1253	4			X								
3.																		
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

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

RELINQUISHED BY SAMPLER: 1. <u>IT</u>	DATE/TIME: <u>1310</u> <u>11.12.24</u>	RECEIVED BY: 1. <u>[Signature]</u>	Conditions of bottles or coolers at receipt: ☒ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>3.8</u> °C
RELINQUISHED BY SAMPLER: 2. <u>[Signature]</u>	DATE/TIME:	RECEIVED BY: 2. <u>[Signature]</u>	Comments:
RELINQUISHED BY SAMPLER: 3. <u>IT</u>	DATE/TIME: <u>1420</u> <u>11.12.24</u>	RECEIVED BY: 3. <u>[Signature]</u>	Page <u>2</u> of <u>2</u> CLIENT: ☐ Hand Delivered ☐ Other CHEMTECH: ☐ Picked Up ☐ Field Sampling Shipment Complete ☐ YES ☐ NO

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

Project Name: BAPS Tonnelle
Ave

Chemtech Order ID: _____
Sampler Name: JT

Service Order #: _____ Client Project Coordinator & Phone: _____
Work Order #: _____ *Privish*

Prishh

Page #: 1 of 1

Date: 11.12.24

Arrive Time: 1030

Depart Time: 1310

Sample Matrices (circle all that apply): Water / Solid / NAPL / Concrete / Wipe

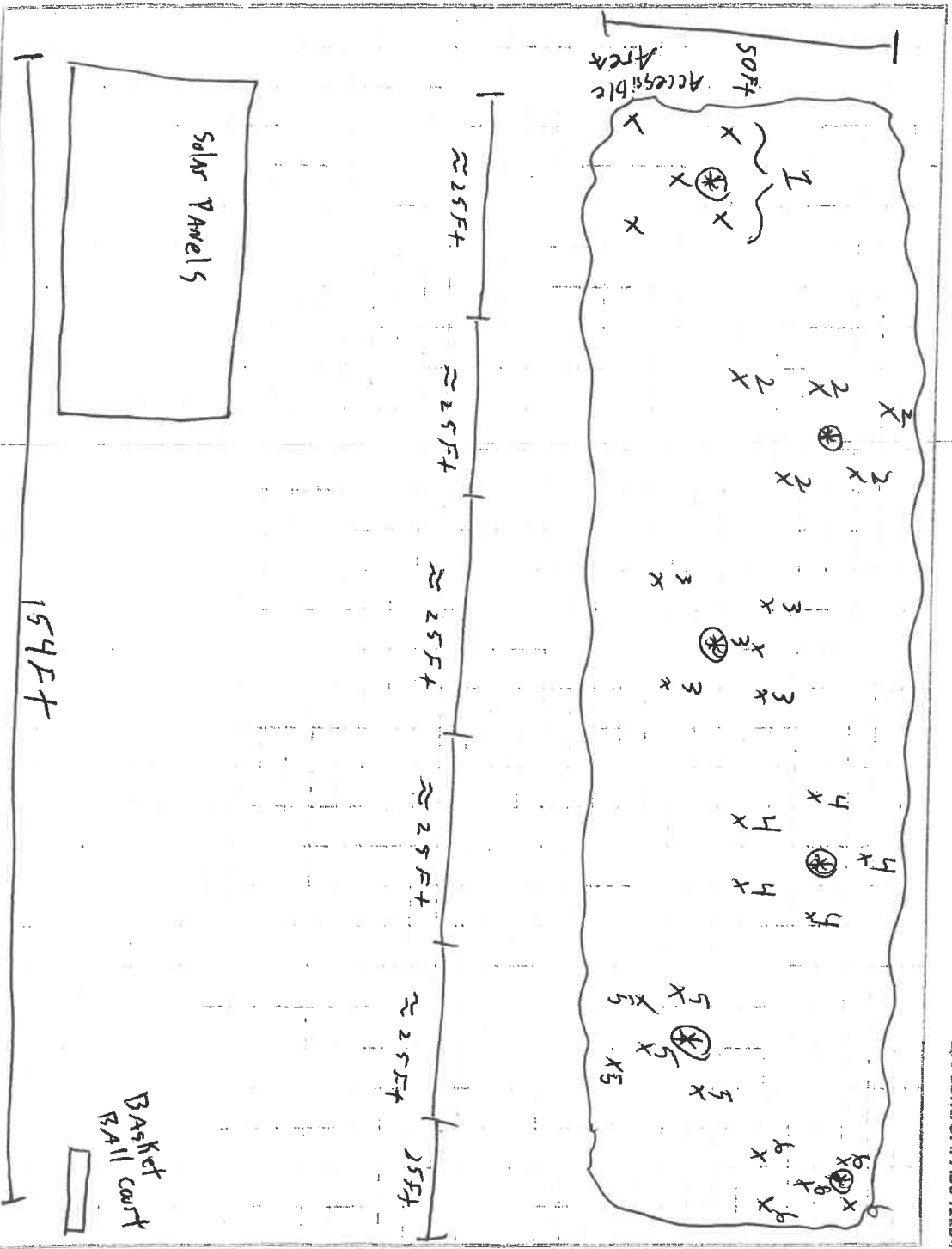
Dimensions/CY: 154 x (~50) x (~15)

Color: Y / N

Sandy Rock soil, woodchips present

Large hill back of parking lot

QA Control # A3041134



Sample Signature: 

Supervisor Review/Date:

Client Signature: _____

Notes/Times Assigned as 1-1-1.



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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4822	BAPS03	Order Date : 11/12/2024 1:54:09 PM	Project Mgr :
Client Name : BAPS North Bergen		Project Name : BAPS North Bergen	Report Type : Level 1
Client Contact : Rakesh Patel		Receive DateTime : 11/12/2024 2:20:00 PM	EDD Type : EXCEL NJCLEANUP
Invoice Name : BAPS North Bergen		Purchase Order :	Hard Copy Date :
Invoice Contact : Rakesh Patel			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4822-01	SOIL-1	Solid	11/12/2024	11:12					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
P4822-03	SOIL-2	Solid	11/12/2024	11:34					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
P4822-05	SOIL-3	Solid	11/12/2024	11:51					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
P4822-07	SOIL-4	Solid	11/12/2024	12:10					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
P4822-09	SOIL-5	Solid	11/12/2024	12:30					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
P4822-11	SOIL-6	Solid	11/12/2024	12:45					
					VOC-TCLVOA-10		8260D	10 Bus. Days	

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4822 BAPS03

Order Date : 11/12/2024 1:54:09 PM

Project Mgr :

Client Name : BAPS North Bergen

Project Name : BAPS North Bergen

Report Type : Level 1

Client Contact : Rakesh Patel

Receive DateTime : 11/12/2024 2:20:00 PM

EDD Type : EXCEL NJCLEANUP

Invoice Name : BAPS North Bergen

Purchase Order :

Hard Copy Date :

Invoice Contact : Rakesh Patel

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
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Relinquished By :

Date / Time :

IT
11.12.24/1440

Received By :

Date / Time :

POW
11/12/24 3:00 PM

Storage Area : VOA Refridgerator Room