

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

E2A02

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29Z2

Matrix: Water Lab Sample ID: P4878-07

% Solids: Date Received: 11/16/2024

Analytical Method: ICP_MS

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): $\mu\text{g/L}$

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20	U	11/22/2024	1615
7440-36-0	Antimony	2.0	U	11/22/2024	1615
7440-38-2	Arsenic	1.5		11/22/2024	1615
7440-39-3	Barium	99		11/22/2024	1615
7440-41-7	Beryllium	1.0	U	11/22/2024	1615
7440-43-9	Cadmium	1.0	U	11/22/2024	1615
7440-70-2	Calcium	80000		11/22/2024	1615
7440-47-3	Chromium	2.0	U	11/22/2024	1615
7440-48-4	Cobalt	0.11	J	11/22/2024	1615
7440-50-8	Copper	1.4	J	11/22/2024	1615
7439-89-6	Iron	420		11/22/2024	1615
7439-92-1	Lead	1.0	U	11/22/2024	1615
7439-95-4	Magnesium	30000		11/22/2024	1615
7439-96-5	Manganese	1.6		11/22/2024	1615
7440-02-0	Nickel	0.85	J	11/22/2024	1615
7440-09-7	Potassium	4000		11/22/2024	1615
7782-49-2	Selenium	5.0	U	11/22/2024	1615
7440-22-4	Silver	1.0	U	11/22/2024	1615
7440-23-5	Sodium	15000		11/22/2024	1615
7440-28-0	Thallium	1.0	U	11/22/2024	1615
7440-62-2	Vanadium	0.18	J	11/22/2024	1615
7440-66-6	Zinc	5.0	U	11/22/2024	1615

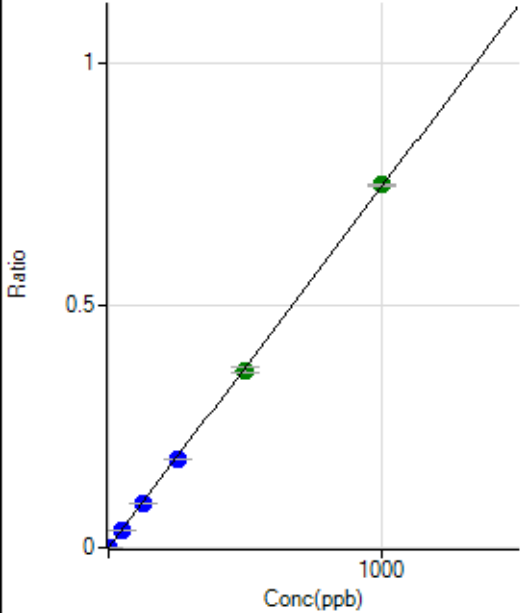
NOTE: Hardness (total) is reported in mg/L

Comments:

Batch Folder: D:\Agilent\ICPMH\1\DATA\P7112224 MS2.b\
Analysis File: P7112224 MS2.batch.bin
DA Date-Time: 2024-11-22 16:58:22
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2024-11-22 13:25:55
2	006CALS.d	S02	2024-11-22 13:32:32
3	007CALS.d	S03	2024-11-22 13:35:48
4	008CALS.d	S04	2024-11-22 13:38:44
5	009CALS.d	S05	2024-11-22 13:41:30
6	010CALS.d	S06	2024-11-22 13:44:16
7	011CALS.d	S07	2024-11-22 13:46:59
8	012CALS.d	S08	2024-11-22 13:49:45

9 Be [No Gas] ISTD:6 Li [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	122.22	0.0000	P	13.2
2	☐	1.000	1.029	2481.72	0.0008	P	4.7
3	☐	50.000	49.255	115563.04	0.0367	P	0.2
4	☐	125.000	124.502	287764.56	0.0927	P	0.8
5	☐	250.000	244.477	555198.02	0.1821	P	0.9
6	☐	500.000	492.443	1102535.80	0.3667	A	3.5
7	☐	1000.000	1005.259	2237590.27	0.7485	A	0.8
8	☐			381.49	0.0001	P	29.3

$y = 7.4453E-004 * x + 4.0541E-005$

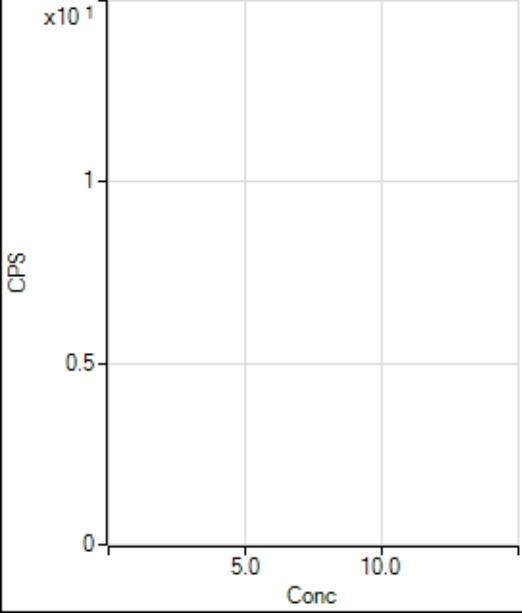
$R = 0.9999$

$DL = 0.02159$

Weight: <None>

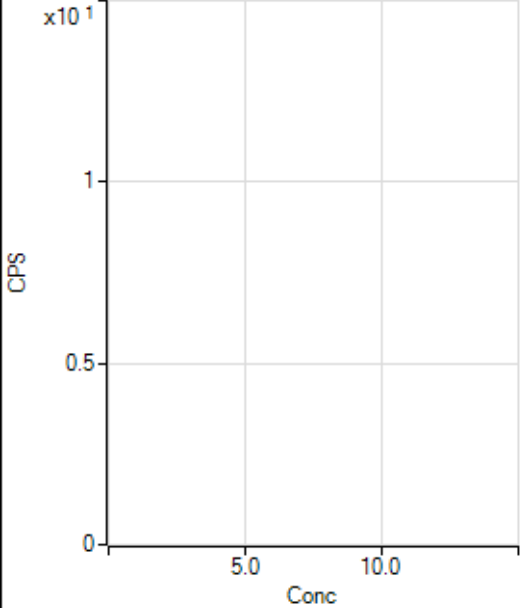
Min Conc: 0

12 C [No Gas] No available calibration points



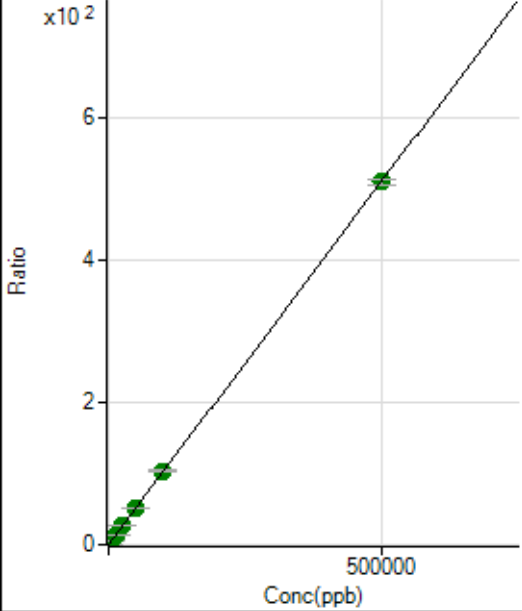
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

12 C [He] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

23 Na [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	68331.56	0.0557	P	0.4
2	☐	500.000	494.753	692354.40	0.5618	P	0.1
3	☐	5000.000	5323.033	6564653.51	5.5009	A	2.5
4	☐	12500.000	13388.482	16066577.12	13.7515	A	0.9
5	☐	25000.000	25935.894	30626603.16	26.5869	A	0.4
6	☐	50000.000	50945.642	60418329.65	52.1707	A	1.2
7	☐	100000.00	101697.71	126856487.00	104.0878	A	0.4
8	☐	500000.00	499493.66	639795474.91	511.0149	A	1.3

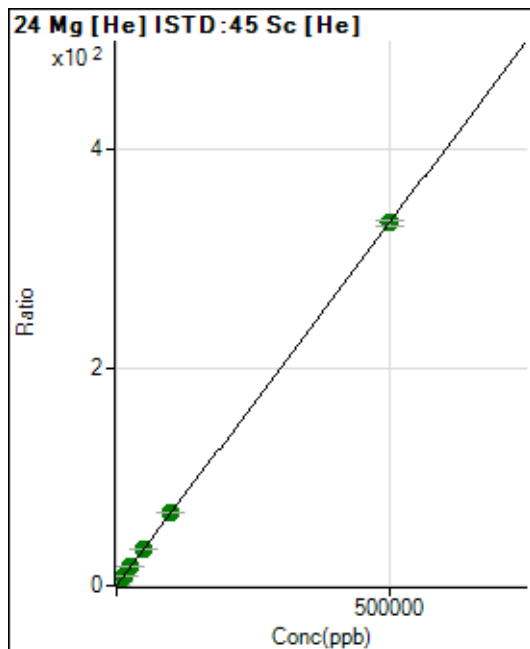
$y = 0.0010 * x + 0.0557$

$R = 1.0000$

$DL = 0.6348$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4258.41	0.0035	P	1.7
2	☐	500.000	497.060	412333.84	0.3346	P	0.2
3	☐	5000.000	5231.485	4162364.18	3.4881	A	3.1
4	☐	12500.000	13148.427	10236567.76	8.7616	A	0.9
5	☐	25000.000	25466.588	19544424.15	16.9667	A	0.4
6	☐	50000.000	49435.958	38139975.26	32.9326	A	0.5
7	☐	100000.00	100167.06	81320557.12	66.7243	A	0.4
8	☐	500000.00	499981.13	416931731.57	333.0389	A	1.8

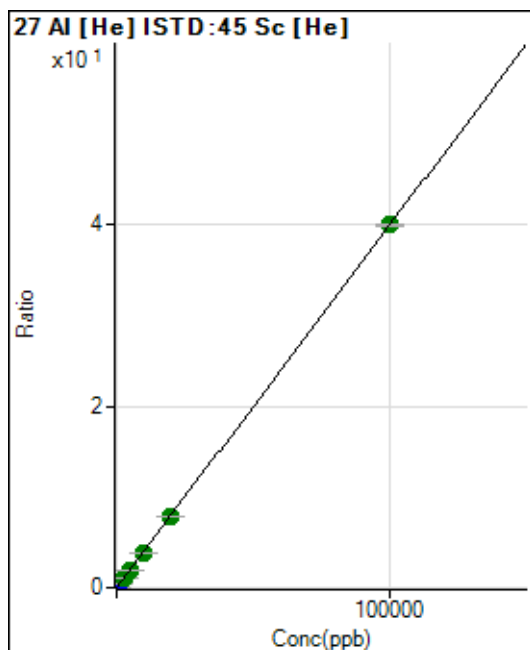
$$y = 6.6610E-004 * x + 0.0035$$

$$R = 1.0000$$

$$DL = 0.2611$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	486.68	0.0004	P	13.0
2	☐	20.000	18.729	9707.59	0.0079	P	1.1
3	☐	1000.000	1036.645	494560.41	0.4144	P	2.1
4	☐	2500.000	2554.807	1192564.00	1.0207	A	1.5
5	☐	5000.000	5009.297	2305018.94	2.0010	A	0.5
6	☐	10000.000	9676.977	4476254.66	3.8652	A	0.9
7	☐	20000.000	19442.538	9463924.30	7.7653	A	0.6
8	☐	100000.00	100141.59	50075219.25	39.9946	A	0.2

$$y = 3.9938E-004 * x + 3.9635E-004$$

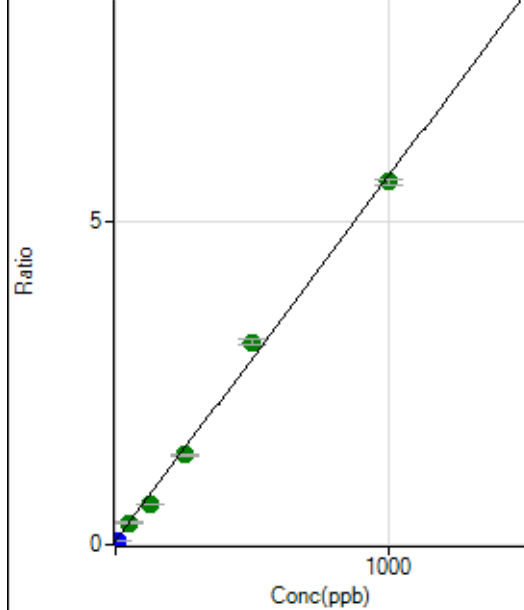
$$R = 1.0000$$

$$DL = 0.3877$$

Weight: <None>

Min Conc: 0

28 Si [No Gas] ISTD :45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	830078.05	0.0605	P	0.7
2	☐	10.000	0.545	879619.47	0.0635	P	0.8
3	☐	50.000	49.943	4722456.59	0.3430	A	1.7
4	☐	125.000	101.474	8510744.39	0.6345	A	1.0
5	☐	250.000	234.988	18141127.65	1.3899	A	1.2
6	☐	500.000	544.875	41529921.88	3.1430	A	2.3
7	☐	1000.000	984.353	76483310.53	5.6293	A	1.8
8	☐			907826.09	0.0670	P	2.0

$$y = 0.0057 * x + 0.0605$$

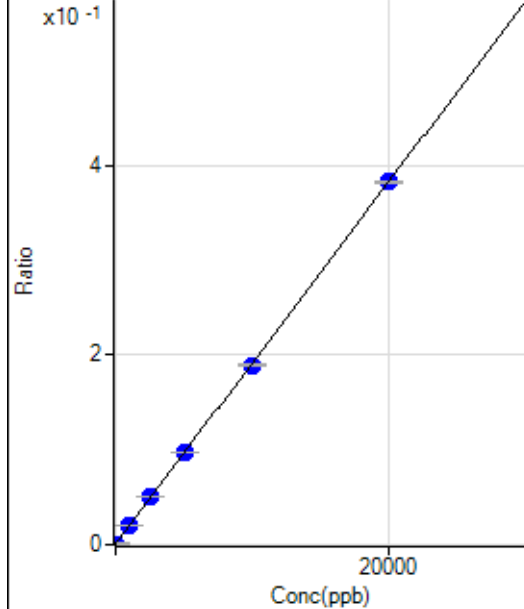
$$R = 0.9981$$

$$DL = 0.2265$$

Weight: <None>

Min Conc: 0

31 P [He] ISTD :45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-15.891	488.90	0.0004	P	7.8
2	☐	0.000	15.891	1236.73	0.0010	P	8.9
3	☐	1000.000	1034.195	24348.32	0.0204	P	1.7
4	☐	2500.000	2596.721	58609.46	0.0502	P	0.9
5	☐	5000.000	5055.318	111726.18	0.0970	P	1.1
6	☐	10000.000	9895.147	219090.30	0.1892	P	1.3
7	☐	20000.000	20024.797	465715.46	0.3821	P	0.4
8	☐			595.57	0.0005	P	5.0

$$y = 1.9048E-005 * x + 7.0079E-004$$

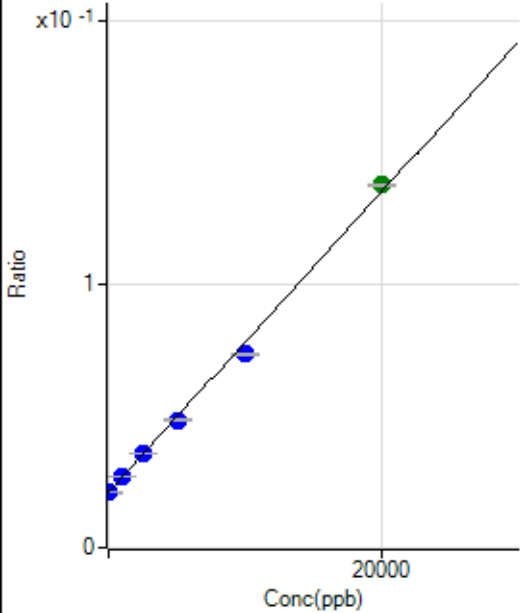
$$R = 1.0000$$

$$DL = 9.465$$

Weight: <None>

Min Conc: 0

34 S [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-41.045	285669.19	0.0208	P	0.7
2	☐	0.000	41.045	294505.05	0.0213	P	0.4
3	☐	1000.000	1032.468	370617.00	0.0269	P	0.1
4	☐	2500.000	2533.603	475673.26	0.0355	P	0.2
5	☐	5000.000	4802.129	631441.91	0.0484	P	0.9
6	☐	10000.000	9175.411	968209.26	0.0733	P	1.6
7	☐	20000.000	20455.939	1868073.01	0.1375	A	0.4
8	☐			239784.77	0.0177	P	4.1

$y = 5.6925E-006 * x + 0.0210$

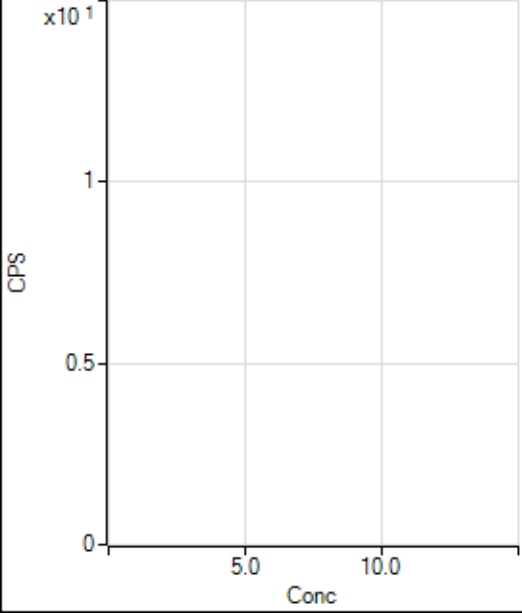
$R = 0.9987$

$DL = 59.12$

Weight: <None>

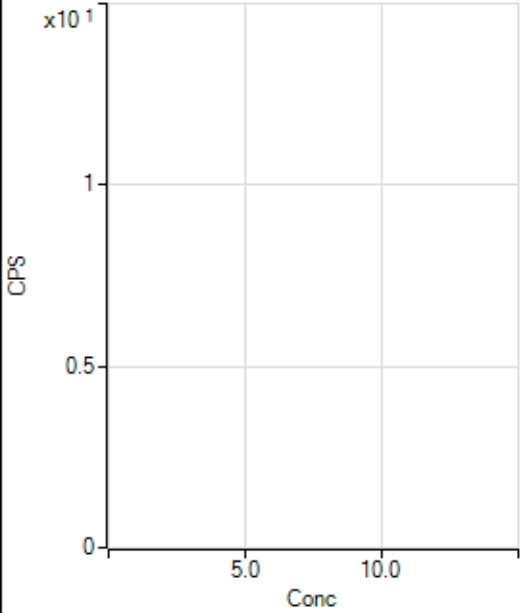
Min Conc: 0

35 Cl [No Gas] No available calibration points



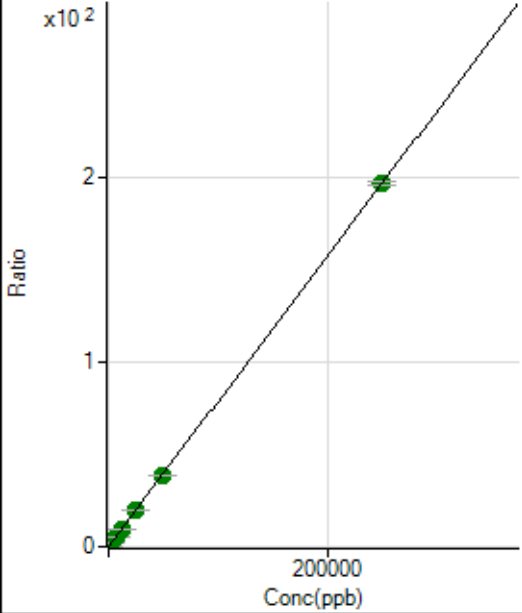
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

35 Cl [He] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

39 K [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	70993.44	0.0578	P	0.4
2	☐	500.000	516.964	572463.71	0.4645	P	0.5
3	☐	2500.000	2553.301	2466000.85	2.0664	A	2.3
4	☐	6250.000	6384.548	5935670.05	5.0802	A	0.5
5	☐	12500.000	12411.502	11313549.69	9.8214	A	0.3
6	☐	25000.000	24550.428	22433512.17	19.3705	A	0.4
7	☐	50000.000	49078.502	47123460.41	38.6655	A	0.5
8	☐	250000.00	250229.75	246514469.66	196.9016	A	1.0

$y = 7.8665E-004 * x + 0.0578$

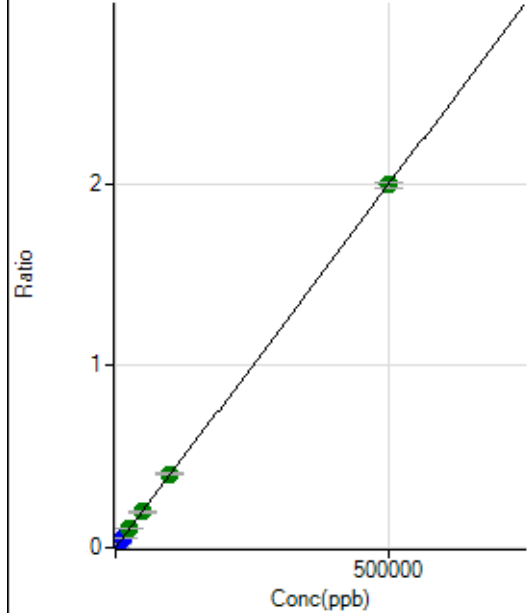
$R = 1.0000$

$DL = 0.8705$

Weight: <None>

Min Conc: 0

43 Ca [No Gas] ISTD: 45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6152.42	0.0004	P	0.7
2	☐	500.000	529.382	35416.83	0.0026	P	1.4
3	☐	5000.000	5368.385	300820.06	0.0218	P	1.3
4	☐	12500.000	13545.485	730286.26	0.0544	P	1.1
5	☐	25000.000	25444.477	1329830.80	0.1019	A	1.3
6	☐	50000.000	48981.274	2586183.14	0.1957	A	1.7
7	☐	100000.00	101597.17	5509152.21	0.4055	A	0.8
8	☐	500000.00	499730.36	26993585.71	1.9926	A	1.4

$$y = 3.9865E-006 * x + 4.4813E-004$$

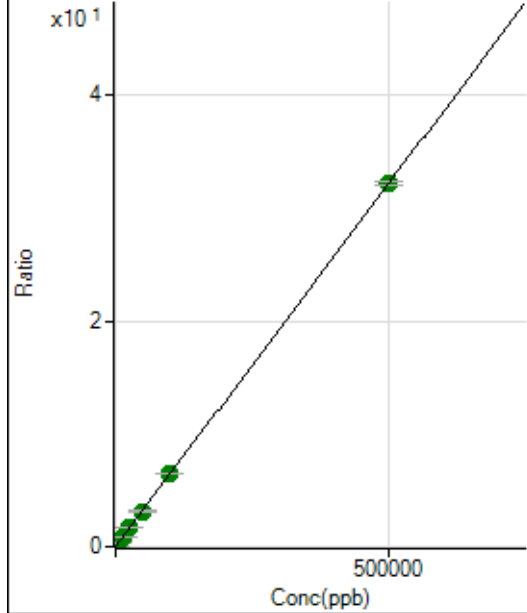
$$R = 1.0000$$

$$DL = 2.366$$

Weight: <None>

Min Conc: 0

44 Ca [No Gas] ISTD: 45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	111759.95	0.0081	P	0.8
2	☐	500.000	527.198	582069.71	0.0420	P	1.3
3	☐	5000.000	5047.920	4582188.20	0.3328	A	0.7
4	☐	12500.000	12791.747	11144464.42	0.8309	A	1.2
5	☐	25000.000	25342.649	21382064.96	1.6381	A	0.6
6	☐	50000.000	48526.687	41347704.66	3.1293	A	2.5
7	☐	100000.00	100919.67	88304966.46	6.4991	A	0.7
8	☐	500000.00	499938.46	435713726.84	32.1635	A	1.0

$$y = 6.4319E-005 * x + 0.0081$$

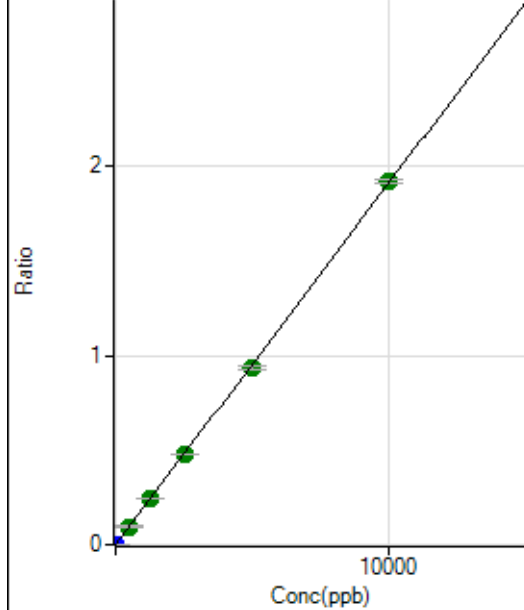
$$R = 1.0000$$

$$DL = 3.165$$

Weight: <None>

Min Conc: 0

47 Ti [No Gas] ISTD :45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	278.89	0.0000	P	15.3
2	☐	5.000	4.984	13456.08	0.0010	P	1.8
3	☐	500.000	502.971	1322797.90	0.0961	A	1.3
4	☐	1250.000	1281.132	3281799.91	0.2447	A	2.0
5	☐	2500.000	2506.170	6247318.10	0.4786	A	1.3
6	☐	5000.000	4890.506	12341286.48	0.9340	A	2.4
7	☐	10000.000	10049.165	26075642.11	1.9192	A	1.2
8	☐			3917.21	0.0003	P	14.6

$$y = 1.9098E-004 * x + 2.0322E-005$$

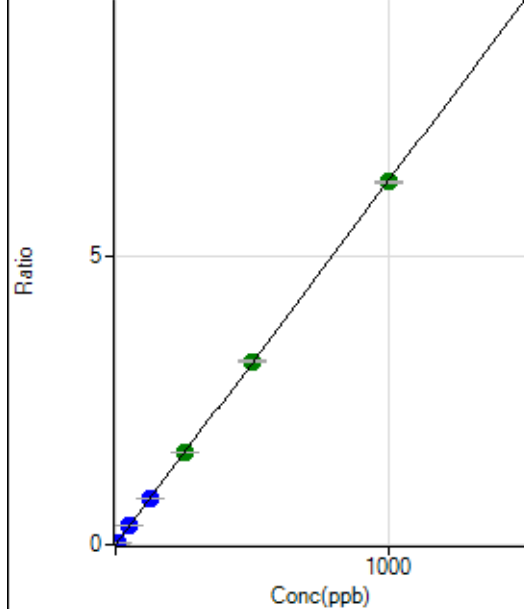
$$R = 0.9999$$

$$DL = 0.04871$$

Weight: <None>

Min Conc: 0

51 V [He] ISTD :45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	57.78	0.0000	P	11.7
2	☐	5.000	5.080	39414.68	0.0320	P	1.2
3	☐	50.000	51.867	389175.03	0.3261	P	2.6
4	☐	125.000	128.564	944392.39	0.8083	P	0.4
5	☐	250.000	253.720	1837412.26	1.5951	A	1.2
6	☐	500.000	502.552	3658926.65	3.1594	A	1.0
7	☐	1000.000	997.255	7640895.72	6.2695	A	0.5
8	☐			2127.95	0.0017	P	0.4

$$y = 0.0063 * x + 4.7045E-005$$

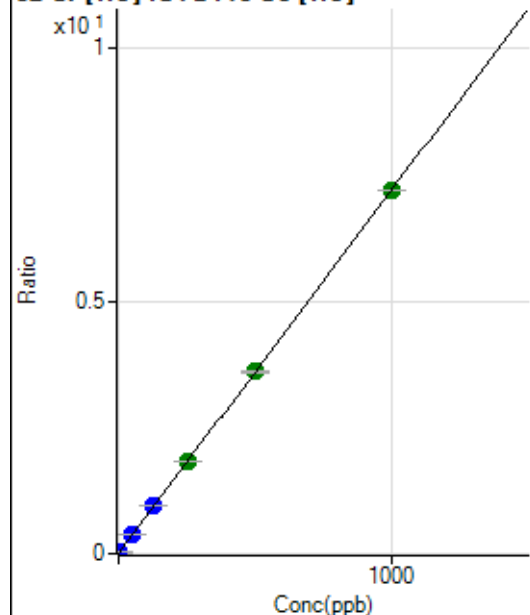
$$R = 1.0000$$

$$DL = 0.002631$$

Weight: <None>

Min Conc: 0

52 Cr [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6103.50	0.0050	P	3.0
2	☐	2.000	2.099	24718.13	0.0201	P	0.8
3	☐	50.000	52.265	454275.12	0.3806	P	1.6
4	☐	125.000	130.906	1105168.29	0.9459	P	0.5
5	☐	250.000	255.197	2118752.38	1.8392	A	0.5
6	☐	500.000	499.622	4164710.70	3.5961	A	0.5
7	☐	1000.000	998.038	8748844.94	7.1785	A	0.2
8	☐			17055.31	0.0136	P	1.3

$$y = 0.0072 * x + 0.0050$$

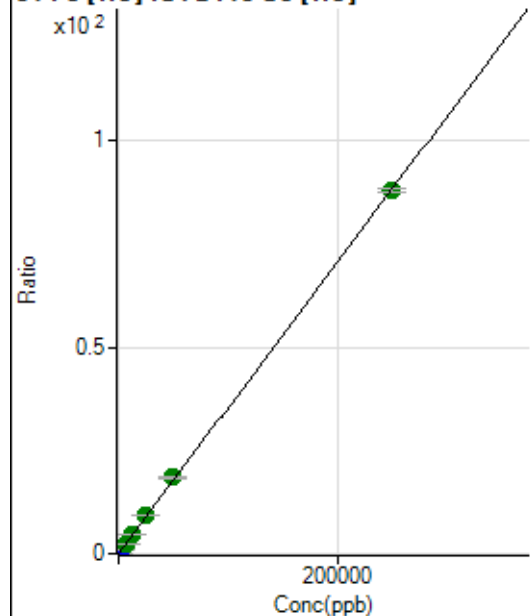
$$R = 1.0000$$

$$DL = 0.06286$$

Weight: <None>

Min Conc: 0

54 Fe [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5252.07	0.0043	P	3.5
2	☐	50.000	56.845	29970.98	0.0243	P	1.3
3	☐	2500.000	2847.583	1203208.24	1.0082	P	2.1
4	☐	6250.000	6896.299	2845606.80	2.4356	A	0.9
5	☐	12500.000	13430.406	5459382.77	4.7392	A	0.5
6	☐	25000.000	26195.835	10700621.23	9.2398	A	0.8
7	☐	50000.000	52296.678	22476076.05	18.4418	A	0.7
8	☐	250000.00	249354.92	110066795.03	87.9158	A	1.0

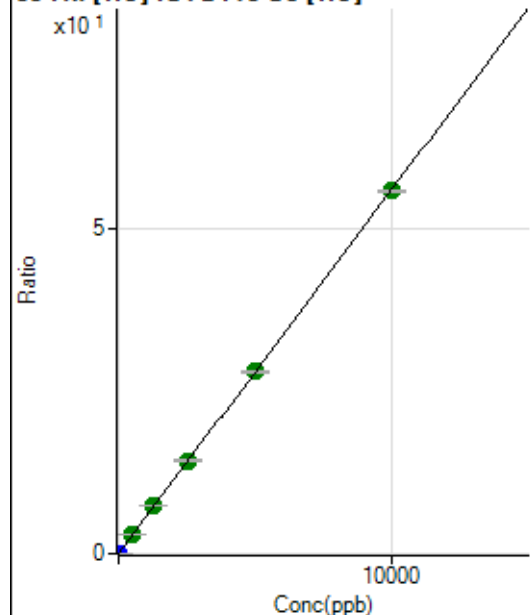
$$y = 3.5256E-004 * x + 0.0043$$

$$R = 1.0000$$

$$DL = 1.283$$

Weight: <None>

Min Conc: 0

55 Mn [He] ISTD : 45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12917.86	0.0105	P	2.6
2	☐	1.000	1.030	20061.24	0.0163	P	1.4
3	☐	500.000	524.035	3506242.03	2.9378	A	2.0
4	☐	1250.000	1303.741	8521501.82	7.2933	A	0.4
5	☐	2500.000	2554.557	16449636.28	14.2804	A	0.8
6	☐	5000.000	5008.565	32413721.74	27.9885	A	0.8
7	☐	10000.000	9974.159	67915777.32	55.7265	A	0.7
8	☐			37540.09	0.0300	P	1.7

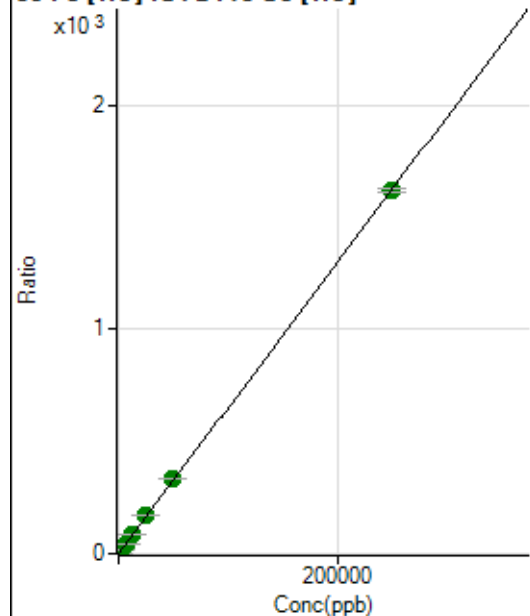
$$y = 0.0056 * x + 0.0105$$

$$R = 1.0000$$

$$DL = 0.1457$$

Weight: <None>

Min Conc: 0

56 Fe [He] ISTD : 45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	41804.73	0.0340	P	0.4
2	☐	50.000	54.738	479246.19	0.3888	P	0.3
3	☐	2500.000	2733.078	21184472.60	17.7493	A	1.1
4	☐	6250.000	6762.655	51255584.24	43.8683	A	0.8
5	☐	12500.000	13227.237	98800269.64	85.7705	A	1.2
6	☐	25000.000	25890.517	194391639.32	167.8515	A	0.6
7	☐	50000.000	51515.692	407002198.38	333.9490	A	0.2
8	☐	250000.00	249556.30	2025243863.1	1,617.610	A	1.1

$$y = 0.0065 * x + 0.0340$$

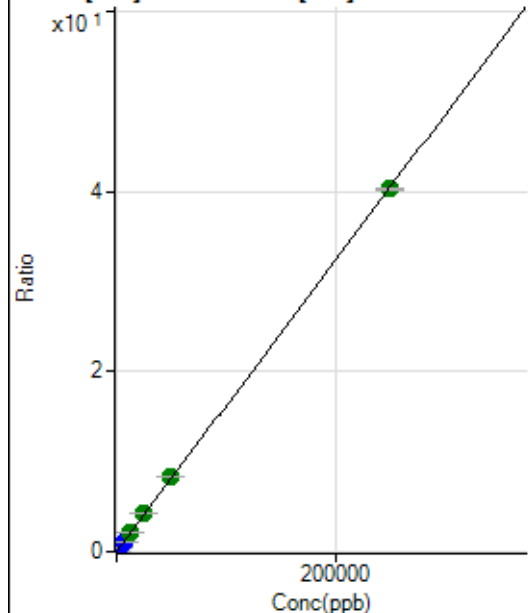
$$R = 1.0000$$

$$DL = 0.06705$$

Weight: <None>

Min Conc: 0

57 Fe [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1950.14	0.0016	P	4.0
2	☐	50.000	57.545	13424.96	0.0109	P	1.8
3	☐	2500.000	2843.251	550508.89	0.4613	P	2.7
4	☐	6250.000	7055.980	1334765.48	1.1425	P	1.2
5	☐	12500.000	13303.240	2479579.32	2.1526	A	2.8
6	☐	25000.000	26079.196	4885279.44	4.2183	A	0.8
7	☐	50000.000	51742.740	10198050.33	8.3678	A	1.5
8	☐	250000.00	249479.78	50506509.80	40.3398	A	0.4

$$y = 1.6169E-004 * x + 0.0016$$

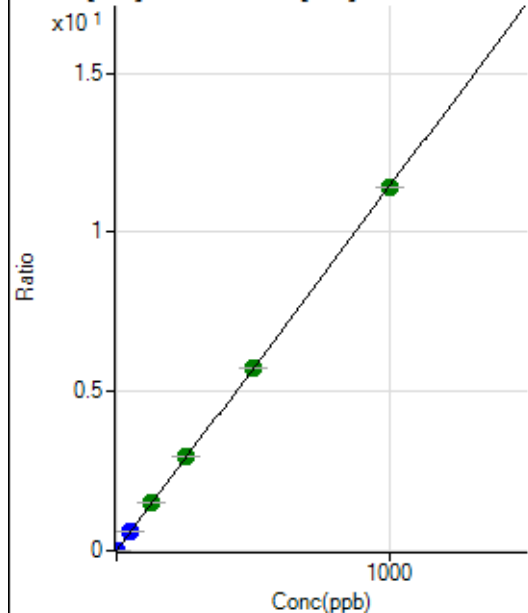
R = 1.0000

DL = 1.186

Weight: <None>

Min Conc: 0

59 Co [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	378.90	0.0003	P	7.0
2	☐	1.000	1.079	15599.30	0.0127	P	2.0
3	☐	50.000	53.123	725639.47	0.6080	P	1.8
4	☐	125.000	132.641	1773231.88	1.5177	A	0.5
5	☐	250.000	258.507	3406863.70	2.9575	A	0.6
6	☐	500.000	501.955	6650544.14	5.7425	A	0.4
7	☐	1000.000	995.785	13883828.40	11.3918	A	0.2
8	☐			37075.73	0.0296	P	1.5

$$y = 0.0114 * x + 3.0854E-004$$

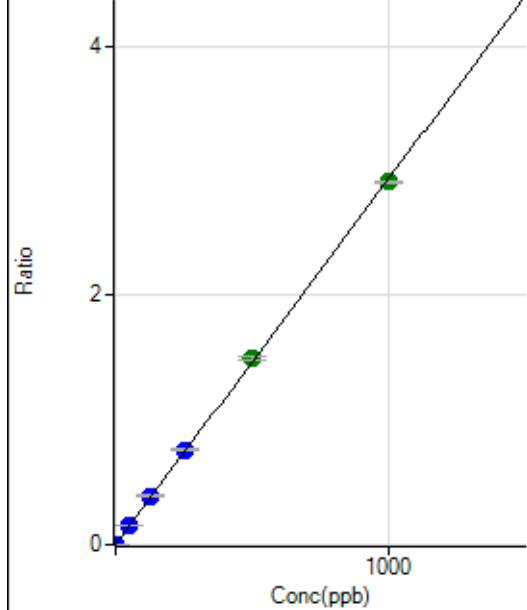
R = 0.9999

DL = 0.005641

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	756.69	0.0006	P	10.0
2	☐	1.000	1.079	4658.54	0.0038	P	3.4
3	☐	50.000	54.116	190155.34	0.1593	P	0.8
4	☐	125.000	133.663	458693.20	0.3926	P	0.7
5	☐	250.000	259.492	877315.30	0.7616	P	0.5
6	☐	500.000	508.577	1727928.71	1.4921	A	1.7
7	☐	1000.000	992.050	3546430.29	2.9099	A	0.6
8	☐			10909.62	0.0087	P	3.6

$$y = 0.0029 * x + 6.1615E-004$$

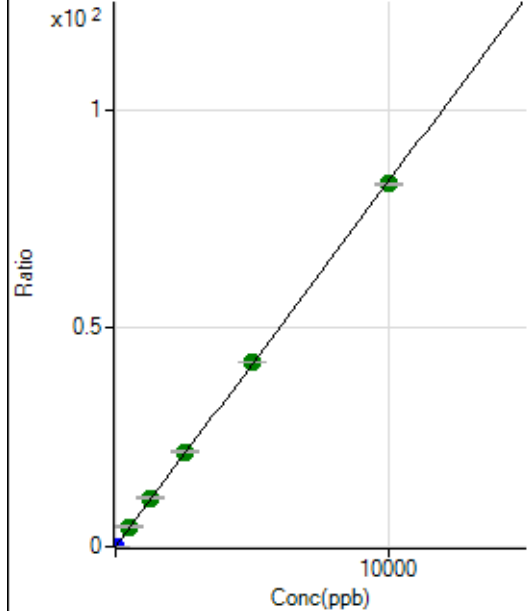
$$R = 0.9999$$

$$DL = 0.06274$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2386.88	0.0019	P	7.9
2	☐	2.000	2.016	23169.11	0.0188	P	1.1
3	☐	500.000	546.609	5455953.74	4.5720	A	3.1
4	☐	1250.000	1336.513	13057452.58	11.1761	A	1.1
5	☐	2500.000	2595.577	24999966.29	21.7027	A	1.2
6	☐	5000.000	5059.444	48991321.49	42.3024	A	0.8
7	☐	10000.000	9933.239	101217909.60	83.0506	A	0.6
8	☐			19224.68	0.0154	P	2.3

$$y = 0.0084 * x + 0.0019$$

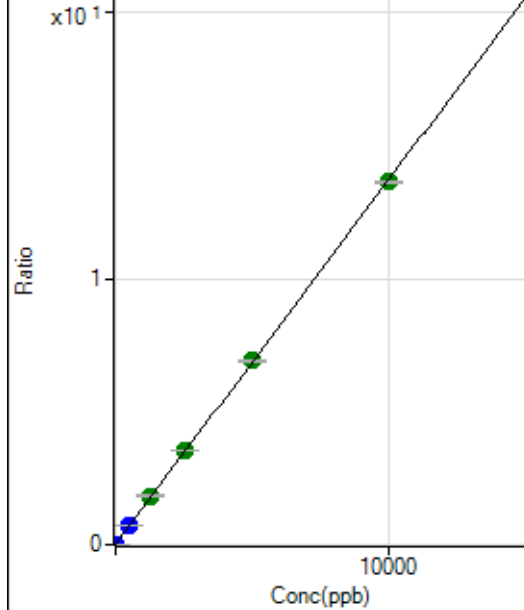
$$R = 0.9999$$

$$DL = 0.05539$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13035.78	0.0106	P	0.7
2	☐	2.000	5.061	21620.20	0.0175	P	0.6
3	☐	500.000	535.359	886953.56	0.7432	P	1.9
4	☐	1250.000	1333.625	2144568.22	1.8355	A	1.1
5	☐	2500.000	2576.468	4073373.83	3.5362	A	1.1
6	☐	5000.000	5041.109	8000955.23	6.9088	A	1.4
7	☐	10000.000	9948.107	16603591.56	13.6234	A	0.5
8	☐			9398.58	0.0075	P	0.5

$$y = 0.0014 * x + 0.0106$$

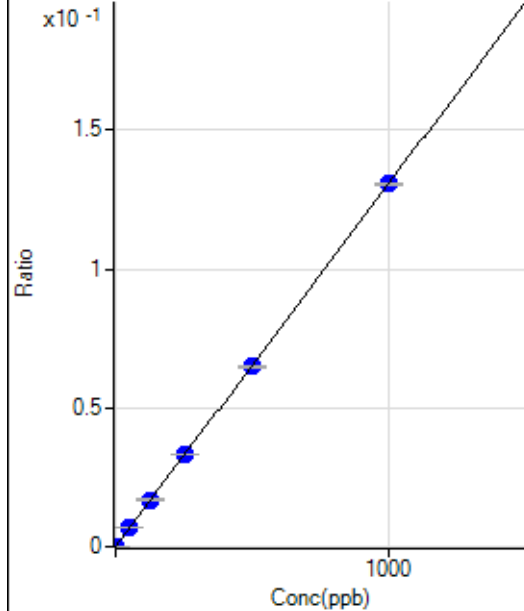
$$R = 0.9999$$

$$DL = 0.1738$$

Weight: <None>

Min Conc: 0

75 As [He] ISTD:89 Y [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	24.44	0.0000	P	21.0
2	☐	1.000	1.049	1220.06	0.0001	P	4.0
3	☐	50.000	52.514	57532.01	0.0069	P	1.8
4	☐	125.000	129.508	141304.76	0.0169	P	1.6
5	☐	250.000	255.164	273318.91	0.0333	P	0.8
6	☐	500.000	496.206	541849.06	0.0648	P	0.8
7	☐	1000.000	999.917	1142525.11	0.1306	P	0.5
8	☐			623.35	0.0001	P	5.8

$$y = 1.3063E-004 * x + 2.8314E-006$$

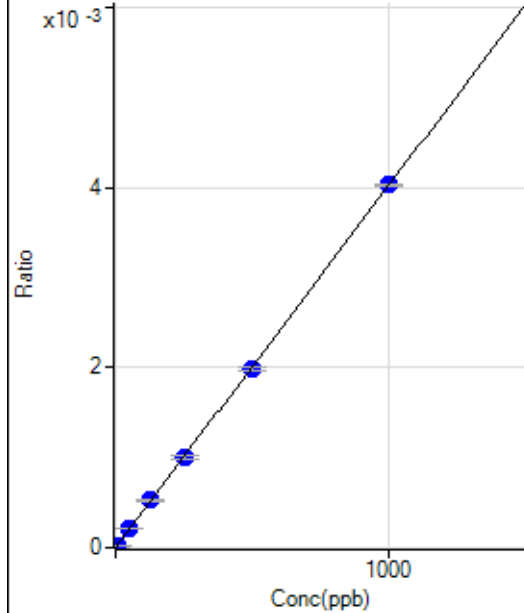
$$R = 1.0000$$

$$DL = 0.01362$$

Weight: <None>

Min Conc: 0

77 Se [He] ISTD: 89 Y [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2.22	0.0000	P	173.
2	☐	5.000	4.755	168.89	0.0000	P	23.2
3	☐	50.000	53.086	1790.13	0.0002	P	0.5
4	☐	125.000	131.348	4408.48	0.0005	P	2.0
5	☐	250.000	248.522	8186.78	0.0010	P	3.8
6	☐	500.000	493.929	16588.30	0.0020	P	1.5
7	☐	1000.000	1002.458	35226.24	0.0040	P	0.6
8	☐			13.33	0.0000	P	66.1

$$y = 4.0172\text{E-}006 * x + 2.5861\text{E-}007$$

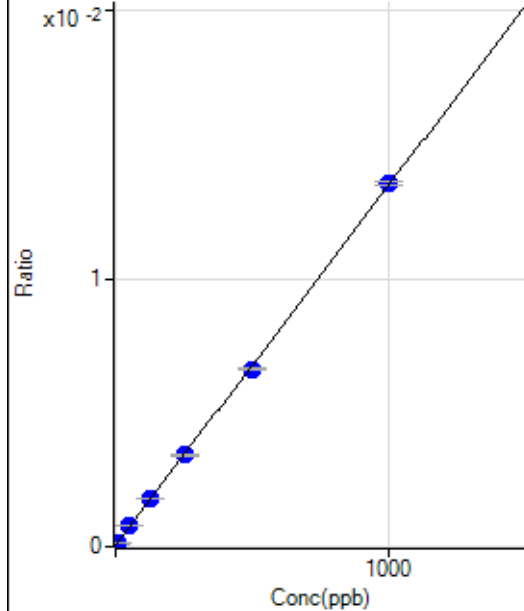
R = 0.9999

DL = 0.3345

Weight: <None>

Min Conc: 0

78 Se [He] ISTD: 89 Y [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	506.68	0.0001	P	6.1
2	☐	5.000	4.727	1064.49	0.0001	P	8.3
3	☐	50.000	53.117	6462.58	0.0008	P	3.3
4	☐	125.000	130.513	15106.68	0.0018	P	1.5
5	☐	250.000	250.067	27976.45	0.0034	P	0.6
6	☐	500.000	488.597	55258.25	0.0066	P	1.1
7	☐	1000.000	1004.841	118374.80	0.0135	P	0.9
8	☐			484.46	0.0001	P	6.5

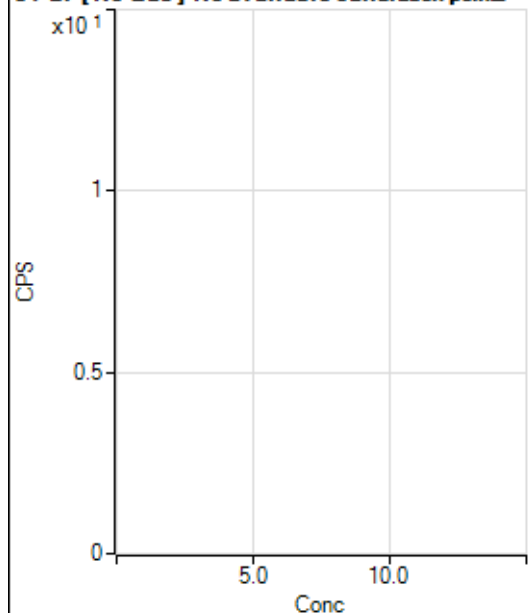
$$y = 1.3410\text{E-}005 * x + 5.8668\text{E-}005$$

R = 0.9999

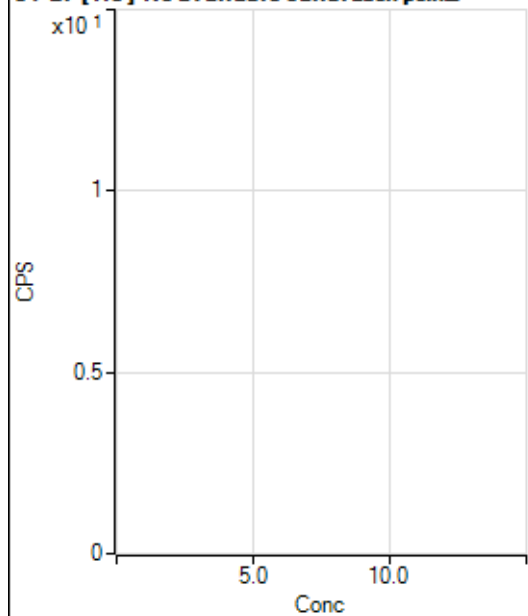
DL = 0.8058

Weight: <None>

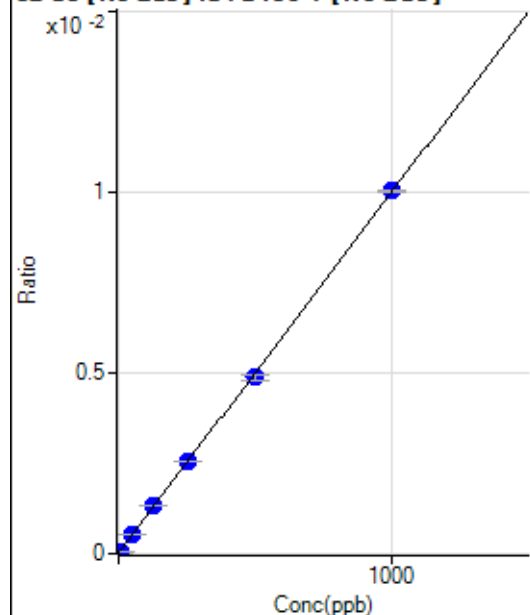
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15698.44		P	2.2
2	☐			15710.68		P	2.0
3	☐			15302.46		P	0.3
4	☐			14892.06		P	3.2
5	☐			13864.37		P	1.7
6	☐			13789.88		P	1.9
7	☐			14469.38		P	2.5
8	☐			16380.31		P	2.2

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			147.78		P	13.6
2	☐			137.78		P	11.9
3	☐			106.67		P	11.3
4	☐			123.33		P	9.7
5	☐			124.45		P	26.8
6	☐			128.89		P	3.9
7	☐			126.67		P	12.1
8	☐			134.45		P	18.9

82 Se [No Gas] ISTD: 89 Y [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	417.14	0.0000	P	26.9
2	☐	5.000	5.055	2105.46	0.0001	P	1.2
3	☐	50.000	51.238	17294.44	0.0005	P	1.2
4	☐	125.000	129.953	42540.09	0.0013	P	0.7
5	☐	250.000	254.519	81082.94	0.0026	P	1.3
6	☐	500.000	486.872	158250.52	0.0049	P	3.4
7	☐	1000.000	1004.753	337844.80	0.0101	P	0.7
8	☐			692.34	0.0000	P	12.6

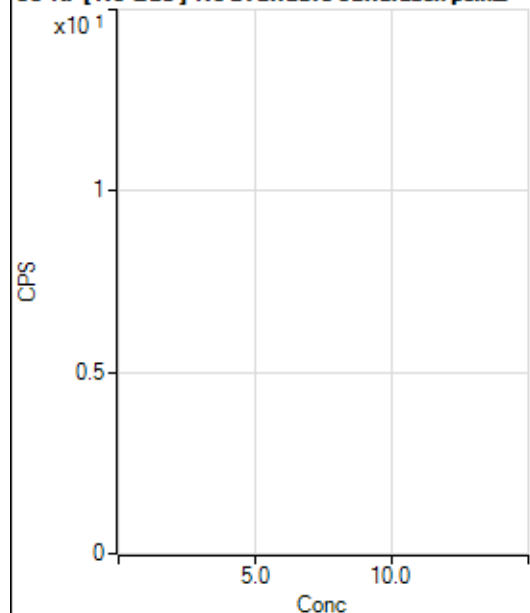
$$y = 9.9918E-006 * x + 1.2637E-005$$

$$R = 0.9998$$

$$DL = 1.021$$

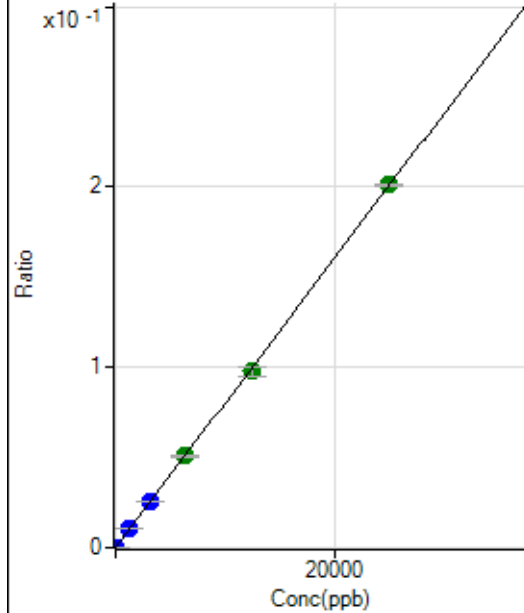
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			257.78		P	10.8
2	☐			228.89		P	2.2
3	☐			245.56		P	10.5
4	☐			263.34		P	7.0
5	☐			261.12		P	4.5
6	☐			280.00		P	9.3
7	☐			291.12		P	5.6
8	☐			312.23		P	16.0

86 Sr [No Gas] ISTD : 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	836.70	0.0000	P	11.3
2	☐	1.000	25.318	7607.58	0.0002	P	2.5
3	☐	1250.000	1274.969	337579.49	0.0102	P	0.9
4	☐	3125.000	3210.167	835231.03	0.0257	P	1.5
5	☐	6250.000	6355.528	1616180.24	0.0509	A	1.8
6	☐	12500.000	12192.646	3169557.87	0.0977	A	4.8
7	☐	25000.000	25115.400	6763506.57	0.2012	A	0.9
8	☐			23390.85	0.0007	P	2.1

$$y = 8.0114E-006 * x + 2.5316E-005$$

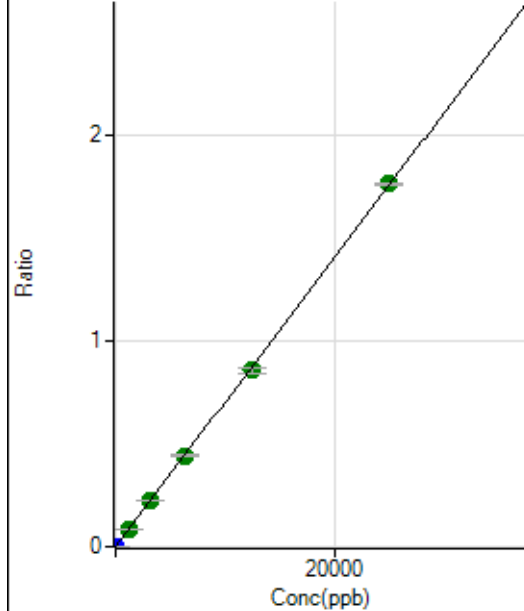
R = 0.9999

DL = 1.073

Weight: <None>

Min Conc: 0

88 Sr [No Gas] ISTD : 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3776.08	0.0001	P	3.0
2	☐	1.000	25.501	63373.47	0.0019	P	0.7
3	☐	1250.000	1260.976	2915841.66	0.0884	A	0.2
4	☐	3125.000	3201.884	7281098.99	0.2244	A	0.9
5	☐	6250.000	6307.222	14021316.60	0.4419	A	0.7
6	☐	12500.000	12193.431	27718009.59	0.8543	A	3.4
7	☐	25000.000	25128.819	59167770.23	1.7604	A	0.6
8	☐			198520.69	0.0061	P	0.7

$$y = 7.0051E-005 * x + 1.1416E-004$$

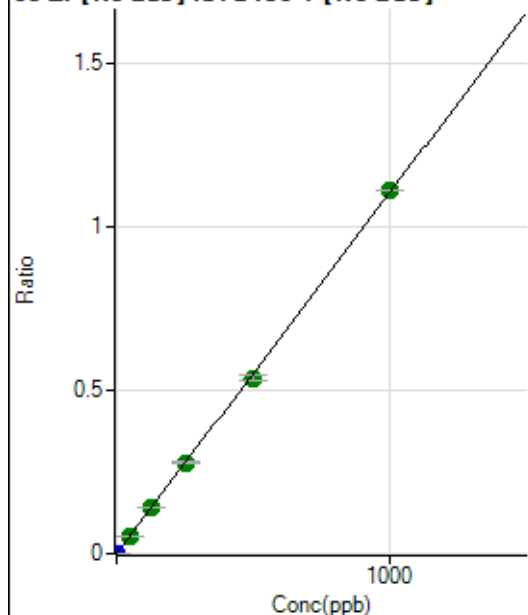
R = 0.9999

DL = 0.1459

Weight: <None>

Min Conc: 0

90 Zr [No Gas] ISTD : 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1847.91	0.0001	P	3.1
2	☐	1.000	0.976	37831.93	0.0011	P	1.3
3	☐	50.000	50.002	1823960.91	0.0553	A	1.3
4	☐	125.000	126.259	4530243.40	0.1396	A	0.4
5	☐	250.000	251.199	8811257.72	0.2777	A	1.6
6	☐	500.000	487.454	17483999.46	0.5389	A	3.7
7	☐	1000.000	1005.816	37370495.55	1.1119	A	0.1
8	☐			22209.08	0.0007	P	2.4

$$y = 0.0011 * x + 5.5865E-005$$

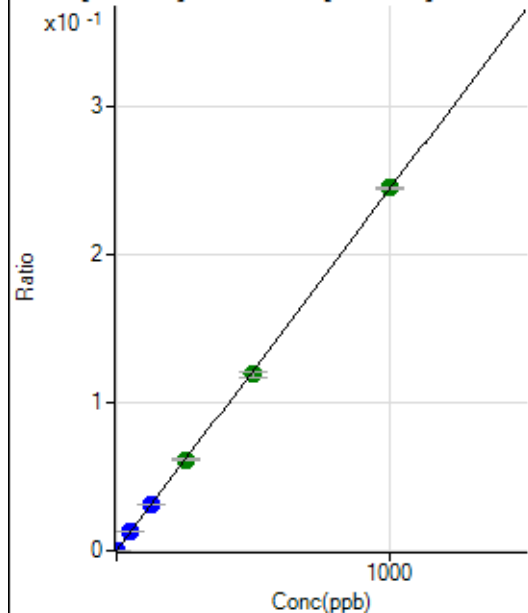
$$R = 0.9999$$

$$DL = 0.004726$$

Weight: <None>

Min Conc: 0

91 Zr [No Gas] ISTD : 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	386.68	0.0000	P	14.8
2	☐	1.000	0.994	8462.50	0.0003	P	1.1
3	☐	50.000	50.832	408565.52	0.0124	P	1.0
4	☐	125.000	127.949	1011506.47	0.0312	P	1.5
5	☐	250.000	252.624	1952538.65	0.0615	A	1.5
6	☐	500.000	487.976	3856681.05	0.1189	A	3.8
7	☐	1000.000	1004.946	8227398.21	0.2448	A	0.7
8	☐			4973.11	0.0002	P	2.8

$$y = 2.4357E-004 * x + 1.1689E-005$$

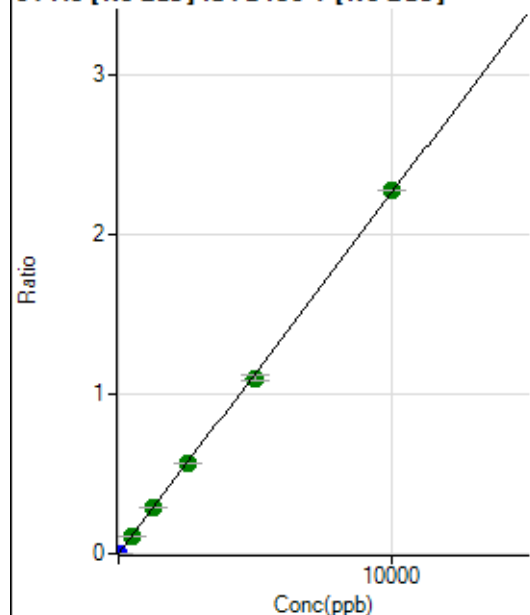
$$R = 0.9999$$

$$DL = 0.02133$$

Weight: <None>

Min Conc: 0

94 Mo [No Gas] ISTD: 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	713.36	0.0000	P	7.8
2	☐	5.000	5.786	44374.77	0.0013	P	0.9
3	☐	500.000	500.707	3735899.67	0.1133	A	1.0
4	☐	1250.000	1270.169	9325944.65	0.2874	A	1.4
5	☐	2500.000	2510.278	18021902.65	0.5681	A	1.4
6	☐	5000.000	4873.764	35784906.41	1.1029	A	3.2
7	☐	10000.000	10057.992	76495518.30	2.2760	A	0.1
8	☐			19108.20	0.0006	P	10.2

$$y = 2.2628E-004 * x + 2.1558E-005$$

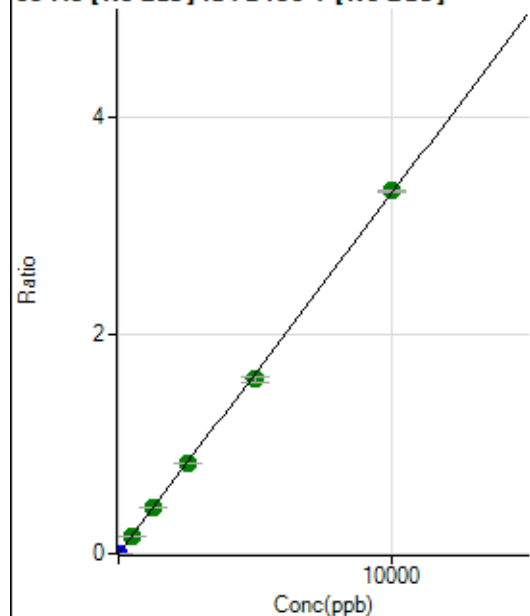
$$R = 0.9999$$

$$DL = 0.02216$$

Weight: <None>

Min Conc: 0

95 Mo [No Gas] ISTD: 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	277.78	0.0000	P	9.5
2	☐	5.000	4.927	54474.16	0.0016	P	0.6
3	☐	500.000	503.682	5477559.78	0.1662	A	0.6
4	☐	1250.000	1268.972	13581425.77	0.4186	A	0.8
5	☐	2500.000	2515.578	26325902.38	0.8298	A	1.2
6	☐	5000.000	4847.024	51879654.23	1.5988	A	2.9
7	☐	10000.000	10070.038	111642235.00	3.3217	A	0.3
8	☐			18746.67	0.0006	P	13.5

$$y = 3.2986E-004 * x + 8.3987E-006$$

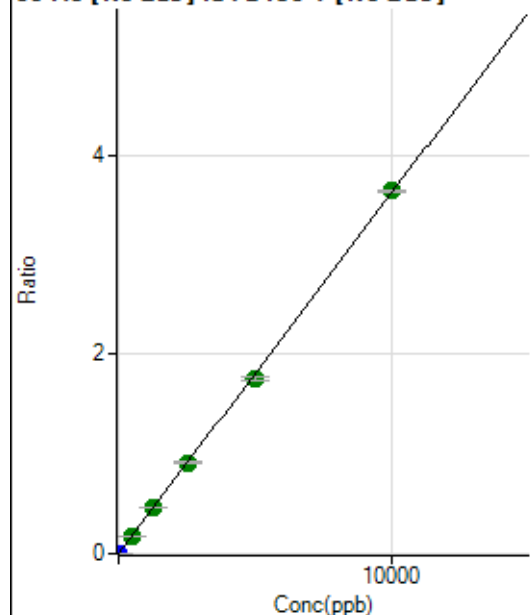
$$R = 0.9998$$

$$DL = 0.00725$$

Weight: <None>

Min Conc: 0

96 Mo [No Gas] ISTD: 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	406.68	0.0000	P	22.0
2	☐	5.000	4.919	59794.74	0.0018	P	1.2
3	☐	500.000	504.344	6020517.83	0.1826	A	0.3
4	☐	1250.000	1271.439	14936653.80	0.4604	A	1.0
5	☐	2500.000	2516.332	28905924.29	0.9111	A	1.5
6	☐	5000.000	4856.383	57059889.71	1.7584	A	2.5
7	☐	10000.000	10064.829	122482400.40	3.6442	A	0.3
8	☐			35182.43	0.0011	P	6.6

$$y = 3.6207E-004 * x + 1.2317E-005$$

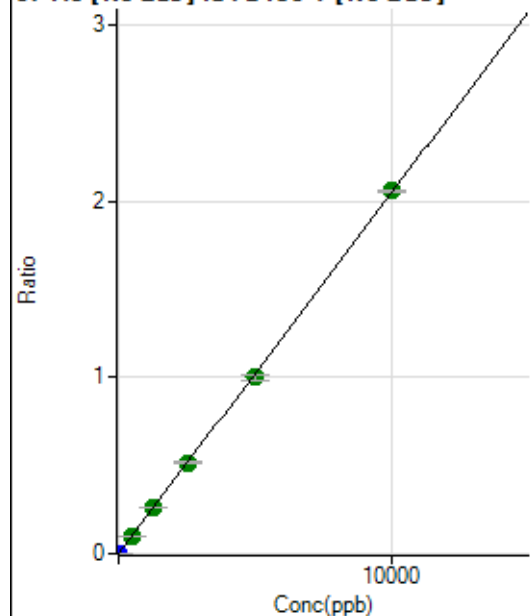
$$R = 0.9998$$

$$DL = 0.02247$$

Weight: <None>

Min Conc: 0

97 Mo [No Gas] ISTD: 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	174.45	0.0000	P	13.4
2	☐	5.000	4.914	33718.79	0.0010	P	1.1
3	☐	500.000	503.897	3400856.24	0.1032	A	0.8
4	☐	1250.000	1268.092	8422616.26	0.2596	A	1.3
5	☐	2500.000	2518.493	16357336.98	0.5156	A	1.3
6	☐	5000.000	4883.630	32440330.63	0.9998	A	2.9
7	☐	10000.000	10051.105	69156156.75	2.0576	A	0.5
8	☐			11118.81	0.0003	P	15.0

$$y = 2.0471E-004 * x + 5.2706E-006$$

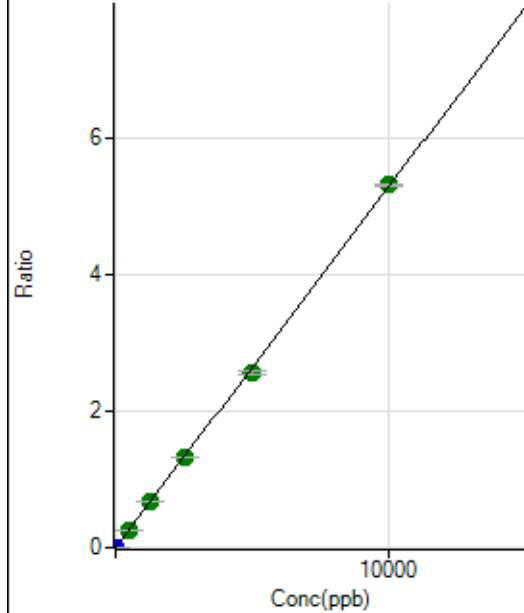
$$R = 0.9999$$

$$DL = 0.01038$$

Weight: <None>

Min Conc: 0

98 Mo [No Gas] ISTD : 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	370.01	0.0000	P	15.4
2	☐	5.000	4.910	86758.92	0.0026	P	1.4
3	☐	500.000	500.666	8709762.30	0.2642	A	0.6
4	☐	1250.000	1268.669	21718314.12	0.6694	A	2.2
5	☐	2500.000	2508.547	41994015.49	1.3237	A	1.6
6	☐	5000.000	4858.315	83180184.87	2.5635	A	3.1
7	☐	10000.000	10066.339	178522075.12	5.3116	A	0.4
8	☐			28225.49	0.0009	P	13.4

$$y = 5.2766E-004 * x + 1.1200E-005$$

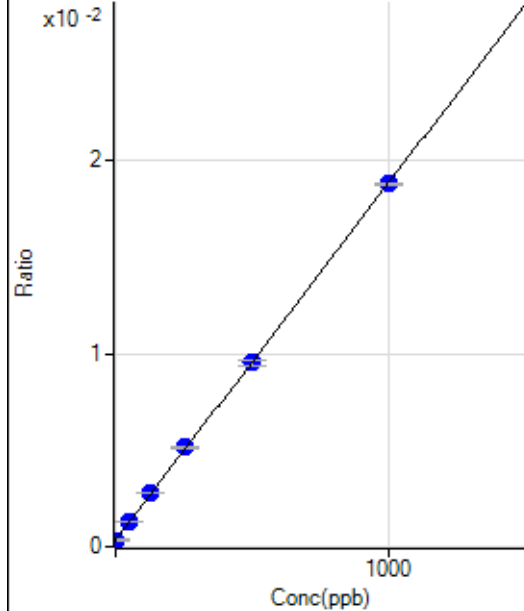
$$R = 0.9998$$

$$DL = 0.009787$$

Weight: <None>

Min Conc: 0

106 Cd [No Gas] ISTD : 159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	9612.16	0.0003	P	0.6
2	☐	1.000	1.123	10304.87	0.0003	P	4.8
3	☐	50.000	54.400	39958.18	0.0013	P	0.7
4	☐	125.000	134.964	84503.69	0.0028	P	0.8
5	☐	250.000	259.977	152237.03	0.0051	P	0.6
6	☐	500.000	496.504	286959.33	0.0095	P	3.5
7	☐	1000.000	997.788	594643.60	0.0188	P	0.5
8	☐			9482.05	0.0003	P	1.1

$$y = 1.8501E-005 * x + 3.2397E-004$$

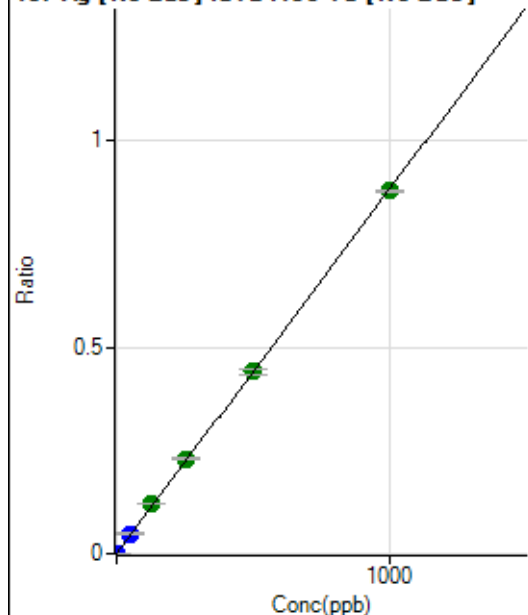
$$R = 0.9999$$

$$DL = 0.3259$$

Weight: <None>

Min Conc: 0

107 Ag [No Gas] ISTD : 159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	162.23	0.0000	P	15.1
2	☐	1.000	1.072	28436.77	0.0010	P	1.8
3	☐	50.000	55.360	1466620.85	0.0488	P	0.4
4	☐	125.000	135.567	3581813.83	0.1196	A	0.4
5	☐	250.000	261.020	6826652.82	0.2302	A	0.7
6	☐	500.000	499.836	13302874.39	0.4408	A	3.3
7	☐	1000.000	995.738	27800960.14	0.8782	A	0.9
8	☐			3566.04	0.0001	P	12.6

$$y = 8.8194E-004 * x + 5.4660E-006$$

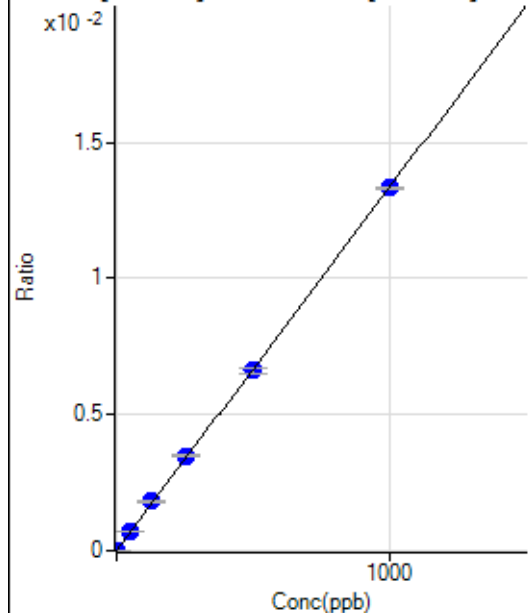
$$R = 0.9999$$

$$DL = 0.002812$$

Weight: <None>

Min Conc: 0

108 Cd [No Gas] ISTD : 159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	35.56	0.0000	P	5.7
2	☐	1.000	0.994	432.23	0.0000	P	8.4
3	☐	50.000	53.773	21583.92	0.0007	P	1.5
4	☐	125.000	135.730	54281.00	0.0018	P	2.1
5	☐	250.000	261.168	103363.65	0.0035	P	0.7
6	☐	500.000	494.973	199314.34	0.0066	P	3.3
7	☐	1000.000	998.192	421629.41	0.0133	P	0.7
8	☐			211.11	0.0000	P	5.9

$$y = 1.3342E-005 * x + 1.1985E-006$$

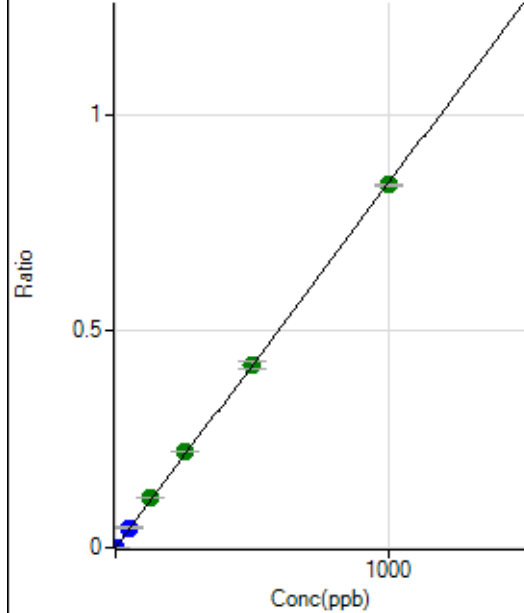
$$R = 0.9999$$

$$DL = 0.01524$$

Weight: <None>

Min Conc: 0

109 Ag [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	61.11	0.0000	P	16.6
2	☐	1.000	1.080	27231.21	0.0009	P	1.1
3	☐	50.000	55.351	1399750.33	0.0466	P	0.4
4	☐	125.000	136.115	3433078.80	0.1146	A	0.5
5	☐	250.000	262.132	6544698.03	0.2207	A	0.4
6	☐	500.000	500.222	12708178.15	0.4212	A	3.8
7	☐	1000.000	995.199	26525261.83	0.8379	A	0.8
8	☐			3345.97	0.0001	P	16.6

$$y = 8.4194\text{E-}004 * x + 2.0597\text{E-}006$$

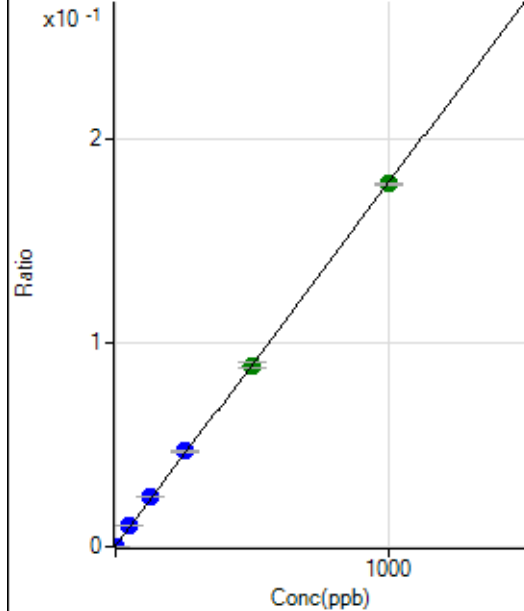
$$R = 0.9999$$

$$DL = 0.00122$$

Weight: <None>

Min Conc: 0

111 Cd [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6765.84	0.0002	P	0.4
2	☐	1.000	1.107	12712.06	0.0004	P	2.7
3	☐	50.000	54.439	298132.87	0.0099	P	0.3
4	☐	125.000	135.315	728953.70	0.0243	P	0.4
5	☐	250.000	261.225	1386765.42	0.0468	P	0.5
6	☐	500.000	497.273	2680030.12	0.0888	A	3.6
7	☐	1000.000	997.046	5630206.94	0.1778	A	0.3
8	☐			7601.94	0.0003	P	1.8

$$y = 1.7815\text{E-}004 * x + 2.2804\text{E-}004$$

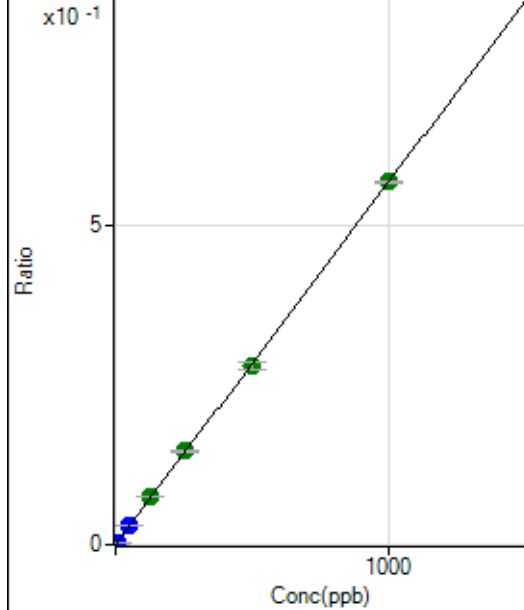
$$R = 0.9999$$

$$DL = 0.01535$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD : 159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7476.46	0.0003	P	1.2
2	☐	5.000	5.294	97396.36	0.0033	P	2.1
3	☐	50.000	52.803	908133.82	0.0302	P	0.3
4	☐	125.000	131.447	2243522.39	0.0749	A	0.9
5	☐	250.000	257.552	4344376.50	0.1465	A	0.7
6	☐	500.000	492.808	8450557.44	0.2801	A	4.5
7	☐	1000.000	1000.761	17997701.12	0.5685	A	0.8
8	☐			8858.38	0.0003	P	4.7

$$y = 5.6784E-004 * x + 2.5200E-004$$

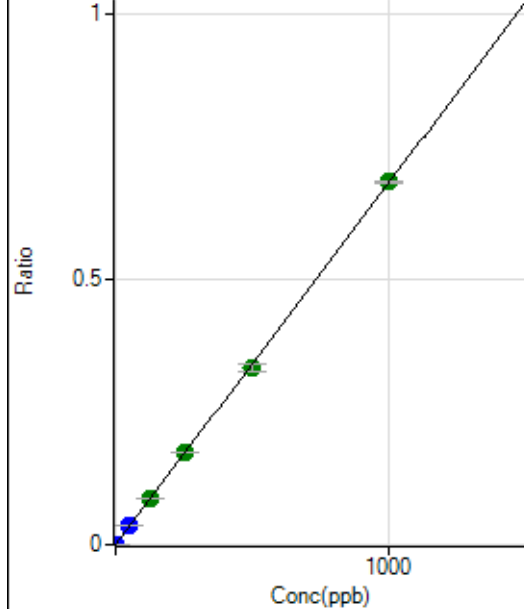
$$R = 0.9999$$

$$DL = 0.01604$$

Weight: <None>

Min Conc: 0

121 Sb [No Gas] ISTD : 159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	84.45	0.0000	P	8.4
2	☐	2.000	2.105	42964.04	0.0014	P	0.8
3	☐	50.000	51.876	1061823.83	0.0354	P	0.0
4	☐	125.000	129.821	2650166.85	0.0885	A	0.4
5	☐	250.000	254.767	5148260.48	0.1736	A	0.7
6	☐	500.000	488.974	10053713.88	0.3332	A	4.3
7	☐	1000.000	1003.625	21651112.45	0.6839	A	0.7
8	☐			10332.70	0.0003	P	7.6

$$y = 6.8144E-004 * x + 2.8466E-006$$

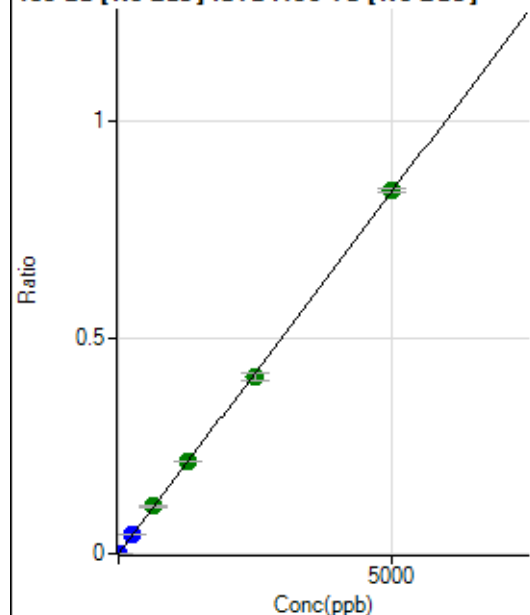
$$R = 0.9999$$

$$DL = 0.001052$$

Weight: <None>

Min Conc: 0

135 Ba [No Gas] ISTD : 159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	365.57	0.0000	P	5.2
2	☐	10.000	10.180	51291.93	0.0017	P	0.9
3	☐	250.000	257.568	1294941.44	0.0431	P	0.3
4	☐	625.000	652.440	3270959.50	0.1092	A	1.2
5	☐	1250.000	1269.125	6298248.45	0.2124	A	0.5
6	☐	2500.000	2449.711	12369377.73	0.4100	A	4.1
7	☐	5000.000	5016.555	26576200.99	0.8395	A	1.1
8	☐			10766.40	0.0004	P	4.6

$$y = 1.6734E-004 * x + 1.2321E-005$$

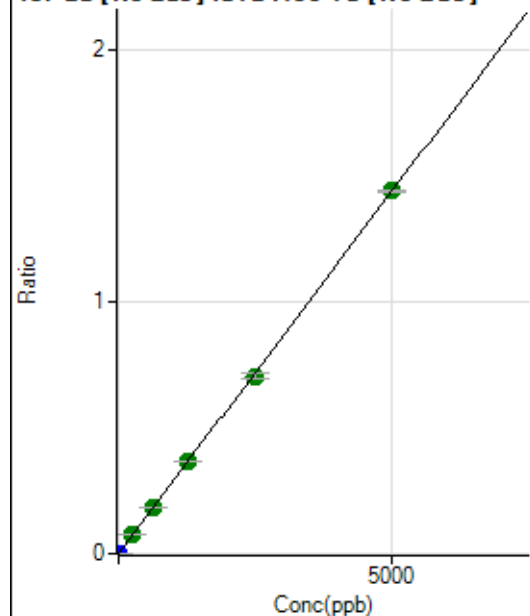
$$R = 0.9999$$

$$DL = 0.01144$$

Weight: <None>

Min Conc: 0

137 Ba [No Gas] ISTD : 159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	656.69	0.0000	P	7.0
2	☐	10.000	10.414	89956.51	0.0030	P	0.6
3	☐	250.000	256.941	2214184.90	0.0737	A	0.5
4	☐	625.000	647.018	5559952.42	0.1856	A	0.7
5	☐	1250.000	1274.214	10838512.34	0.3655	A	0.3
6	☐	2500.000	2456.208	21259790.38	0.7045	A	3.5
7	☐	5000.000	5012.743	45516945.99	1.4378	A	0.5
8	☐			18644.57	0.0006	P	4.5

$$y = 2.8682E-004 * x + 2.2131E-005$$

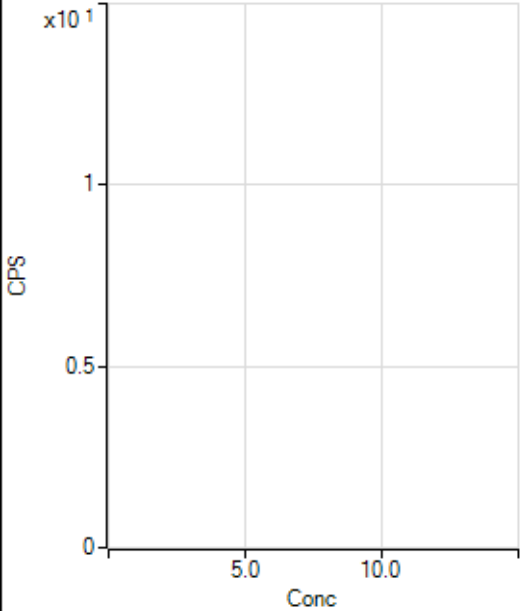
$$R = 0.9999$$

$$DL = 0.0163$$

Weight: <None>

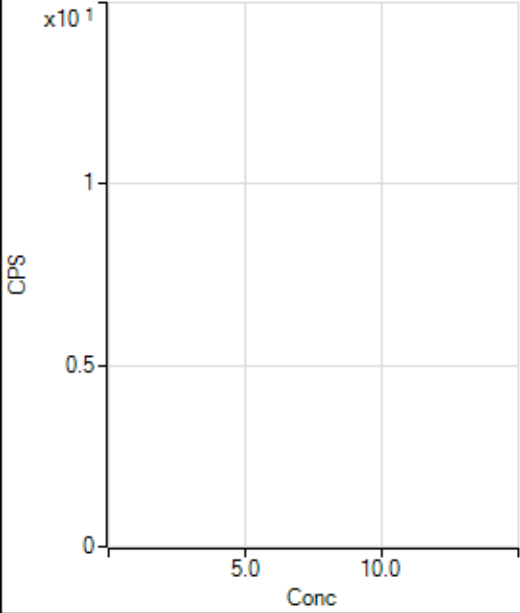
Min Conc: 0

150 Nd [No Gas] No available calibration points

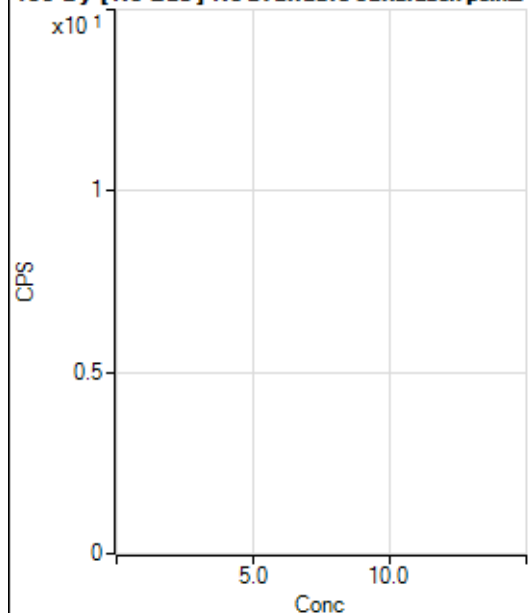


	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.56		P	12.4
2	☐			12.22		P	68.7
3	☐			94.44		P	19.4
4	☐			200.00		P	13.0
5	☐			348.90		P	10.3
6	☐			684.47		P	1.6
7	☐			1394.53		P	5.5
8	☐			476.68		P	0.7

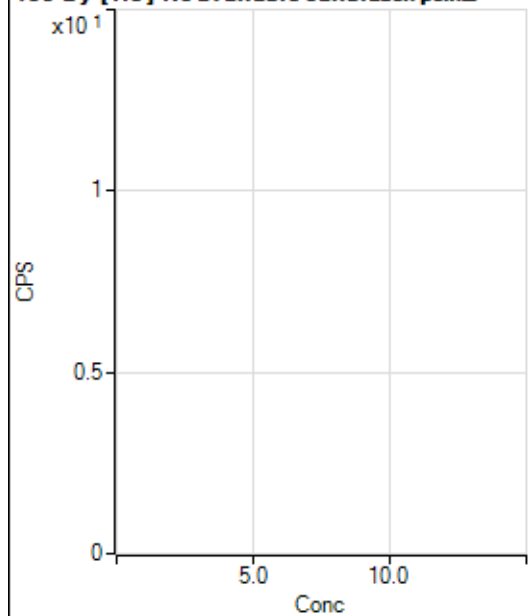
150 Nd [He] No available calibration points



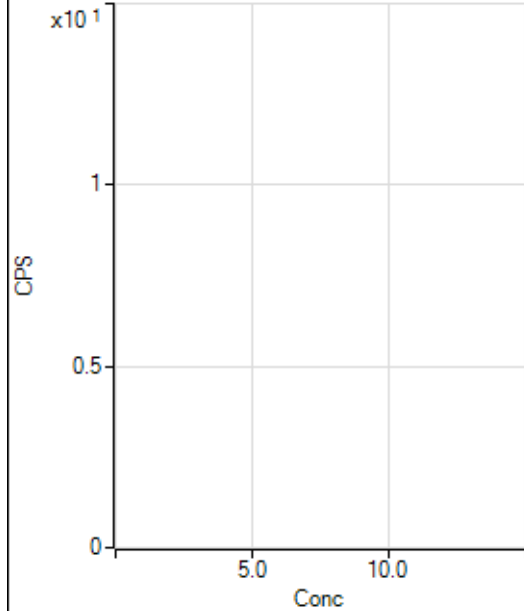
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.66		P	86.6
2	☐			7.78		P	65.5
3	☐			21.11		P	39.7
4	☐			58.89		P	11.8
5	☐			94.44		P	5.4
6	☐			188.89		P	25.5
7	☐			363.34		P	18.6
8	☐			257.79		P	9.1

156 Dy [No Gas] No available calibration points

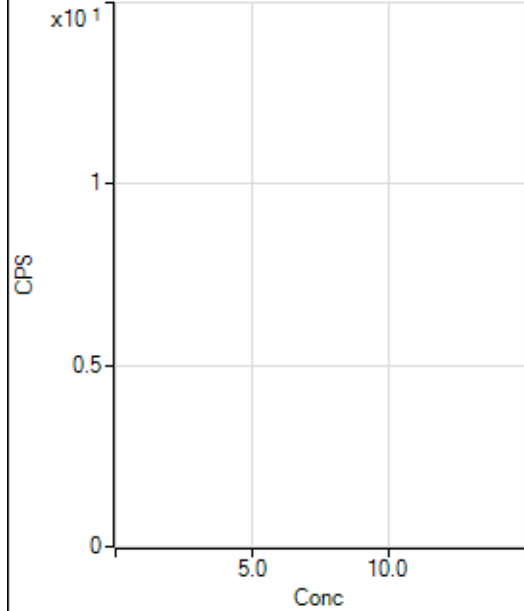
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			31.11		P	27.0
2	☐			37.78		P	13.5
3	☐			46.67		P	12.4
4	☐			84.45		P	42.2
5	☐			112.23		P	13.4
6	☐			234.45		P	9.5
7	☐			487.79		P	11.6
8	☐			916.70		P	5.2

156 Dy [He] No available calibration points

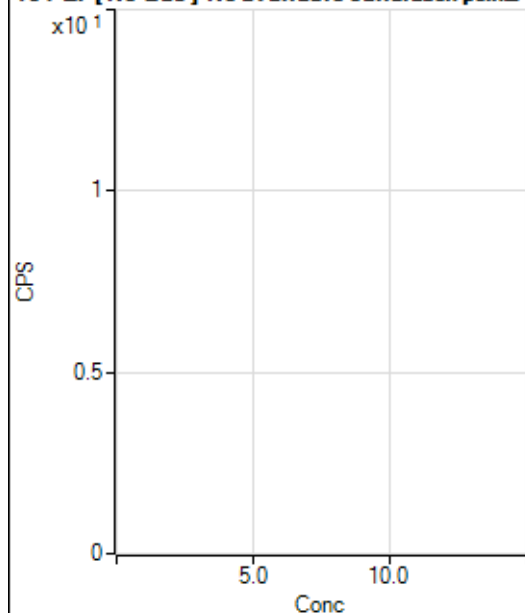
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			17.78		P	39.0
2	☐			21.11		P	96.5
3	☐			80.00		P	18.2
4	☐			173.34		P	17.6
5	☐			365.57		P	6.5
6	☐			741.14		P	9.2
7	☐			1376.75		P	3.2
8	☐			678.91		P	9.9

160 Gd [No Gas] No available calibration poin...

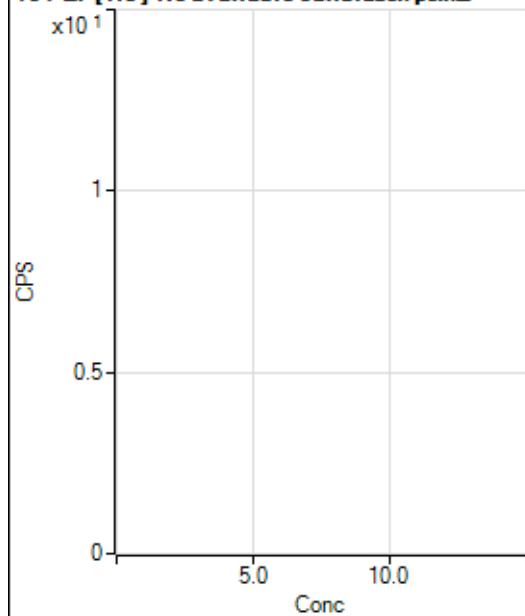
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			143.34		P	6.2
2	☐			133.34		P	2.5
3	☐			152.22		P	27.7
4	☐			164.45		P	17.7
5	☐			215.56		P	7.8
6	☐			298.89		P	1.3
7	☐			421.12		P	1.8
8	☐			864.48		P	5.5

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1368.97		P	4.3
2	☐			1265.63		P	1.3
3	☐			1261.18		P	2.6
4	☐			1287.85		P	3.4
5	☐			1184.51		P	1.3
6	☐			1290.07		P	1.2
7	☐			1392.31		P	2.2
8	☐			1786.80		P	4.3

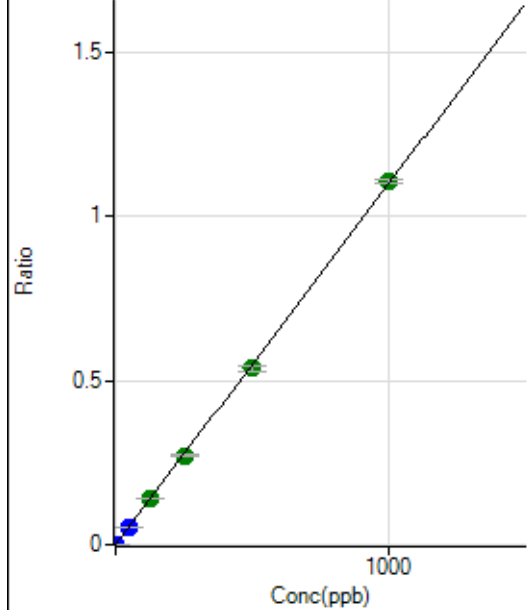
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			100.00		P	31.8
2	☐			117.78		P	11.4
3	☐			151.11		P	8.4
4	☐			166.67		P	13.9
5	☐			188.89		P	4.4
6	☐			304.45		P	7.0
7	☐			475.57		P	2.8
8	☐			991.16		P	5.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			84.45		P	16.0
2	☐			97.78		P	16.1
3	☐			95.55		P	7.3
4	☐			124.45		P	19.4
5	☐			154.45		P	21.3
6	☐			192.23		P	18.2
7	☐			313.34		P	19.2
8	☐			698.91		P	2.2

203 Tl [No Gas] ISTD : 209 Bi [No Gas]



$$y = 0.0011 * x + 1.6556E-005$$

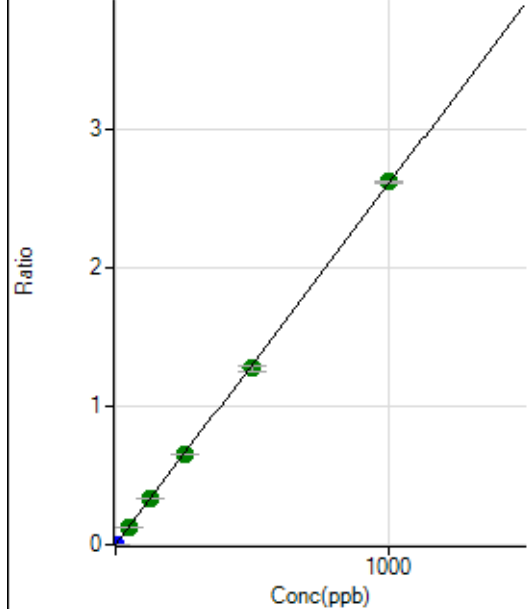
$$R = 0.9999$$

$$DL = 0.006854$$

Weight: <None>

Min Conc: 0

205 Tl [No Gas] ISTD : 209 Bi [No Gas]



$$y = 0.0026 * x + 3.7760E-005$$

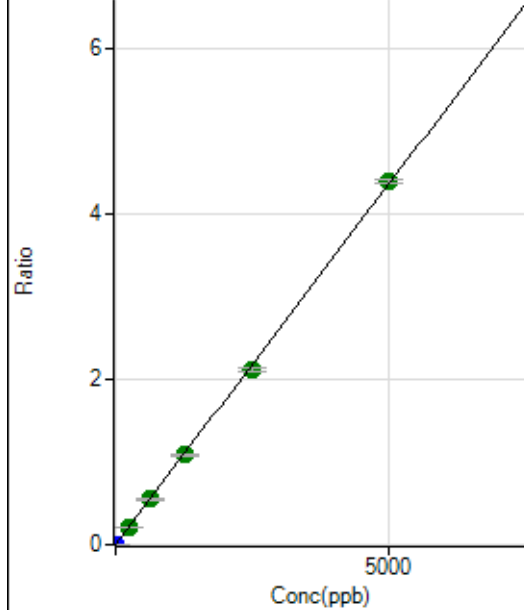
$$R = 0.9999$$

$$DL = 0.001811$$

Weight: <None>

Min Conc: 0

206 [Pb] [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2162.42	0.0001	P	8.9
2	☐	1.000	0.977	17205.43	0.0010	P	3.1
3	☐	250.000	246.386	3790455.22	0.2145	A	0.4
4	☐	625.000	629.821	9636562.01	0.5481	A	1.8
5	☐	1250.000	1240.897	18872271.11	1.0797	A	1.4
6	☐	2500.000	2434.887	37231243.05	2.1185	A	2.7
7	☐	5000.000	5034.410	78991917.16	4.3800	A	1.0
8	☐			10800.00	0.0007	P	13.4

$$y = 8.7000E-004 * x + 1.2389E-004$$

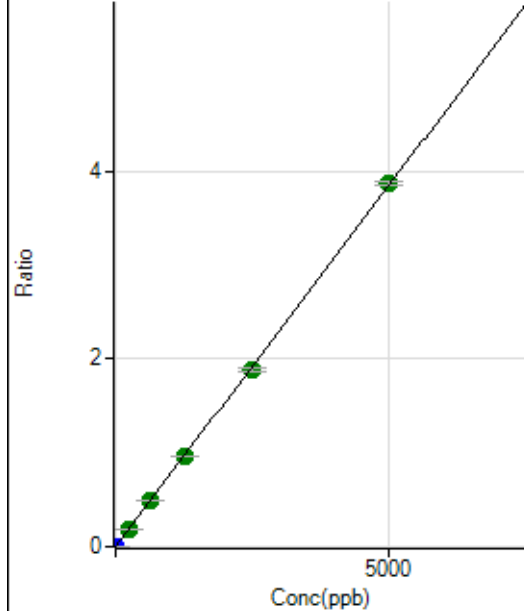
$$R = 0.9999$$

$$DL = 0.03796$$

Weight: <None>

Min Conc: 0

207 [Pb] [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1834.59	0.0001	P	4.1
2	☐	1.000	0.973	15102.95	0.0009	P	2.1
3	☐	250.000	249.037	3389876.76	0.1918	A	0.3
4	☐	625.000	630.371	8533573.62	0.4853	A	0.9
5	☐	1250.000	1245.528	16760072.11	0.9589	A	0.9
6	☐	2500.000	2448.618	33126402.84	1.8850	A	2.9
7	☐	5000.000	5026.186	69776082.85	3.8691	A	1.2
8	☐			9108.73	0.0006	P	12.6

$$y = 7.6976E-004 * x + 1.0513E-004$$

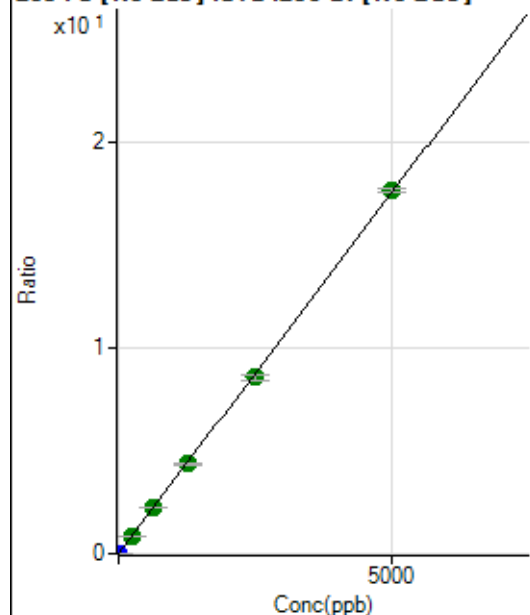
$$R = 0.9999$$

$$DL = 0.01679$$

Weight: <None>

Min Conc: 0

208 Pb [No Gas] ISTD : 209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8475.57	0.0005	P	3.1
2	☐	1.000	0.979	69104.82	0.0039	P	1.7
3	☐	250.000	247.796	15333607.97	0.8676	A	0.2
4	☐	625.000	632.381	38917695.88	2.2134	A	1.1
5	☐	1250.000	1243.591	76073161.78	4.3522	A	0.8
6	☐	2500.000	2444.347	150323693.59	8.5541	A	3.2
7	☐	5000.000	5028.616	317359665.27	17.5974	A	1.1
8	☐			42310.94	0.0027	P	13.4

$$y = 0.0035 * x + 4.8565E-004$$

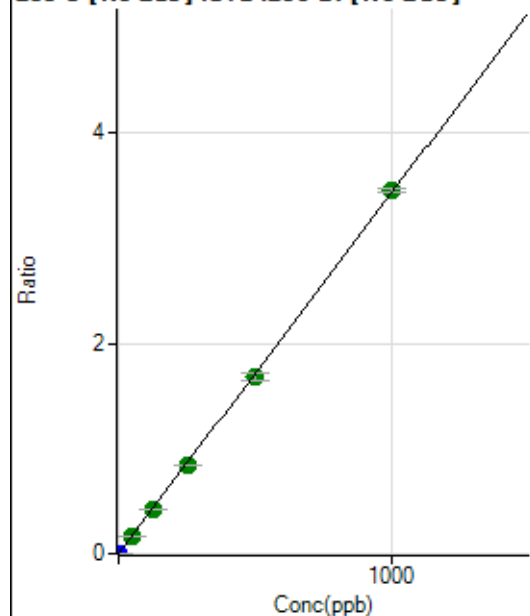
$$R = 0.9999$$

$$DL = 0.01284$$

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD : 209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	98.89	0.0000	P	27.2
2	☐	1.000	0.924	56127.57	0.0032	P	0.6
3	☐	50.000	48.148	2918075.86	0.1651	A	0.2
4	☐	125.000	124.129	7484017.18	0.4257	A	1.1
5	☐	250.000	245.345	14705434.37	0.8413	A	1.4
6	☐	500.000	490.921	29581837.89	1.6834	A	3.6
7	☐	1000.000	1005.905	62207015.74	3.4493	A	0.9
8	☐			4251.90	0.0003	P	33.9

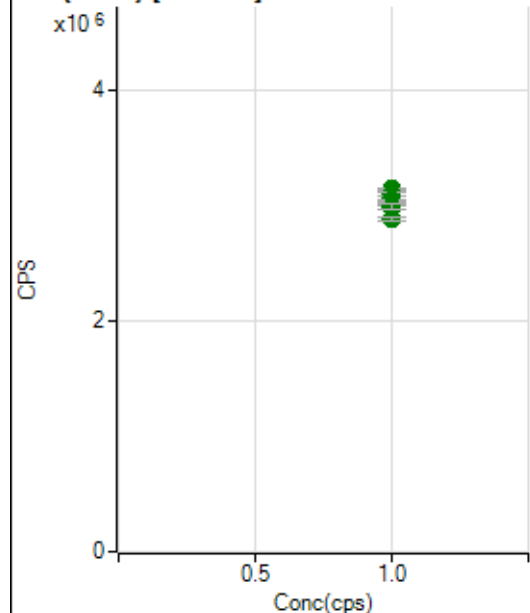
$$y = 0.0034 * x + 5.6680E-006$$

$$R = 0.9999$$

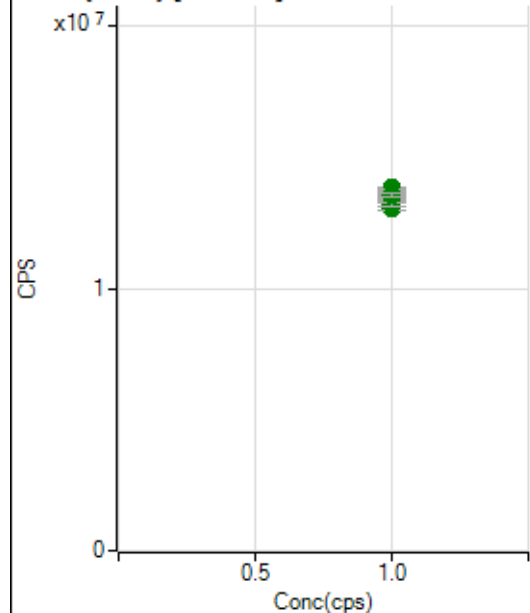
$$DL = 0.001349$$

Weight: <None>

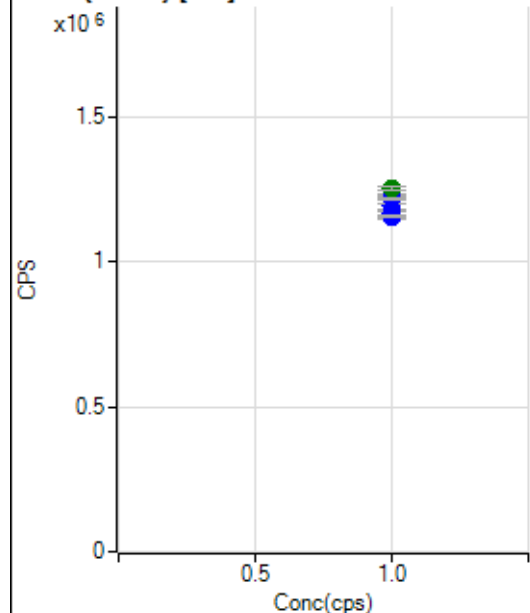
Min Conc: 0

6 Li (ISTD) [No Gas]

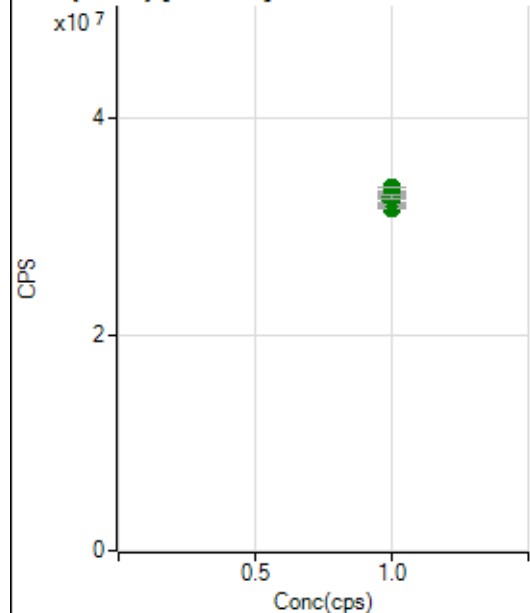
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3017816.39		A	1.2
2	☐	1.000		3077904.93		A	1.1
3	☐	1.000		3147726.37		A	0.8
4	☐	1.000		3102925.96		A	0.6
5	☐	1.000		3049594.05		A	0.6
6	☐	1.000		3008278.45		A	2.1
7	☐	1.000		2989729.15		A	1.7
8	☐	1.000		2891261.38		A	1.4

45 Sc (ISTD) [No Gas]

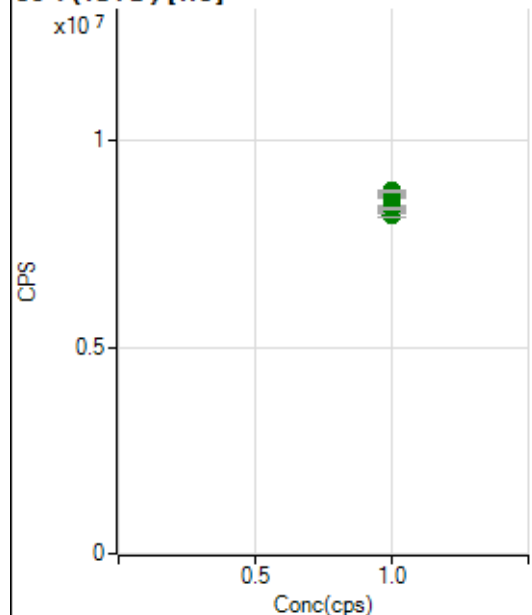
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		13729267.85		A	0.4
2	☐	1.000		13842734.66		A	0.1
3	☐	1.000		13768054.24		A	0.2
4	☐	1.000		13412995.35		A	0.5
5	☐	1.000		13053008.27		A	0.7
6	☐	1.000		13215477.30		A	1.1
7	☐	1.000		13587558.55		A	0.7
8	☐	1.000		13547482.99		A	1.2

45 Sc (ISTD) [He]

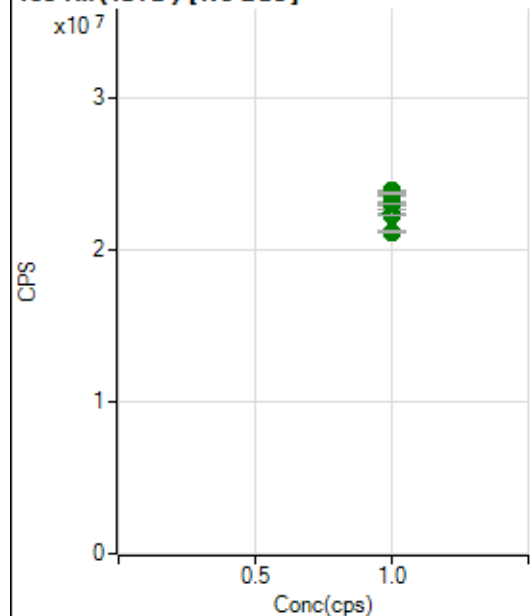
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1227834.54		P	0.3
2	☐	1.000		1232472.23		P	0.4
3	☐	1.000		1193667.82		P	1.5
4	☐	1.000		1168412.58		P	1.1
5	☐	1.000		1151953.69		P	0.8
6	☐	1.000		1158141.66		P	0.6
7	☐	1.000		1218763.75		P	0.5
8	☐	1.000		1252063.68		A	1.2

89 Y (ISTD) [No Gas]

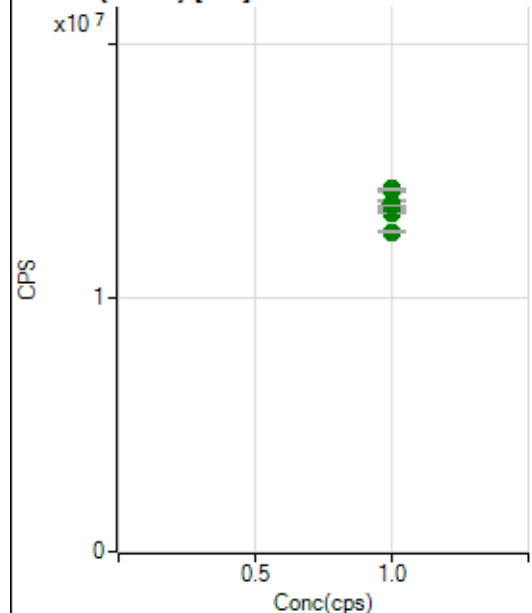
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		33070572.56		A	1.1
2	☐	1.000		33345114.78		A	0.1
3	☐	1.000		32966905.06		A	0.6
4	☐	1.000		32447090.90		A	0.9
5	☐	1.000		31727165.09		A	0.6
6	☐	1.000		32461448.40		A	2.1
7	☐	1.000		33610065.89		A	0.2
8	☐	1.000		32758688.95		A	0.7

89 Y (ISTD) [He]

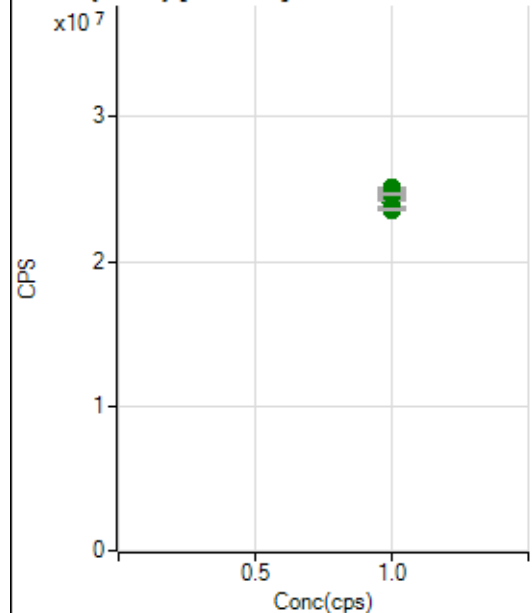
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8634881.33		A	0.4
2	☐	1.000		8720483.07		A	0.3
3	☐	1.000		8384346.82		A	1.2
4	☐	1.000		8352460.09		A	1.5
5	☐	1.000		8199617.93		A	1.0
6	☐	1.000		8359475.22		A	1.0
7	☐	1.000		8747022.65		A	0.7
8	☐	1.000		8783577.23		A	0.7

103 Rh (ISTD) [No Gas]

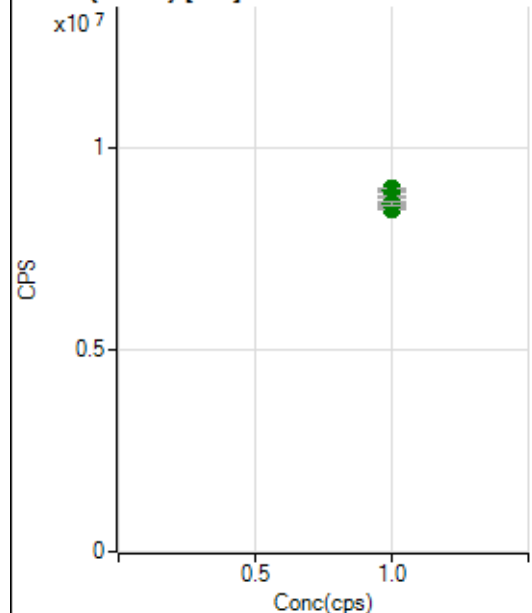
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		23605989.93		A	0.1
2	☐	1.000		23873001.59		A	0.4
3	☐	1.000		23728401.31		A	0.7
4	☐	1.000		22993868.27		A	1.1
5	☐	1.000		22313432.72		A	0.6
6	☐	1.000		22437709.66		A	2.0
7	☐	1.000		23006237.16		A	0.3
8	☐	1.000		21179282.60		A	0.5

103 Rh (ISTD) [He]

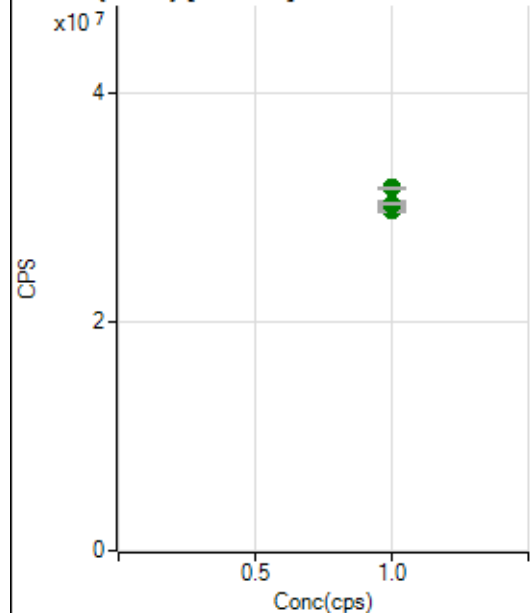
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14214719.10		A	0.6
2	☐	1.000		14275500.76		A	0.5
3	☐	1.000		13730096.88		A	2.2
4	☐	1.000		13670672.02		A	1.2
5	☐	1.000		13439908.55		A	0.5
6	☐	1.000		13312432.30		A	0.3
7	☐	1.000		13610147.44		A	0.2
8	☐	1.000		12594935.51		A	0.7

115 In (ISTD) [No Gas]

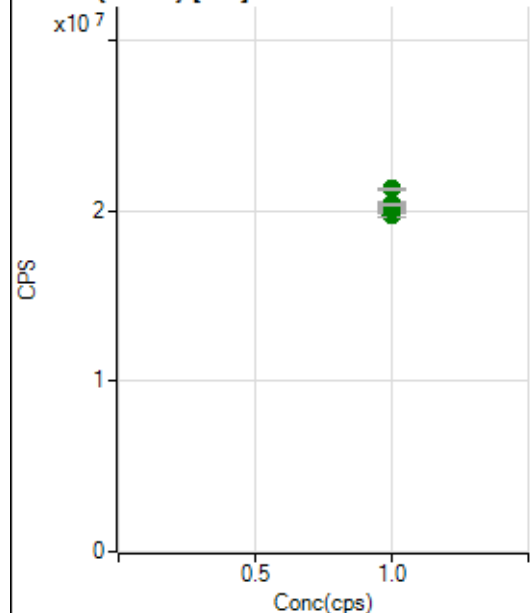
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		24882682.48		A	0.6
2	☐	1.000		25076476.16		A	0.7
3	☐	1.000		24860596.49		A	0.3
4	☐	1.000		24405282.59		A	0.7
5	☐	1.000		23813725.04		A	0.3
6	☐	1.000		24034911.80		A	1.7
7	☐	1.000		24646470.88		A	0.2
8	☐	1.000		23556310.26		A	0.4

115 In (ISTD) [He]

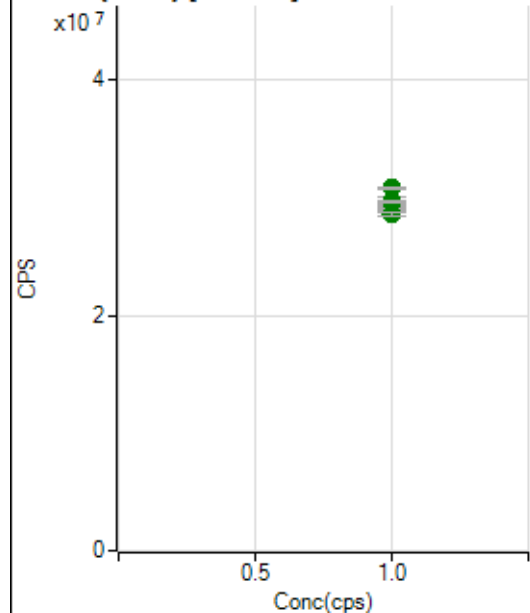
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8967752.07		A	0.2
2	☐	1.000		8935720.24		A	1.0
3	☐	1.000		8659770.04		A	1.9
4	☐	1.000		8555258.97		A	0.8
5	☐	1.000		8547627.47		A	1.2
6	☐	1.000		8469465.73		A	0.3
7	☐	1.000		8782628.64		A	0.3
8	☐	1.000		8606515.38		A	1.2

159 Tb (ISTD) [No Gas]

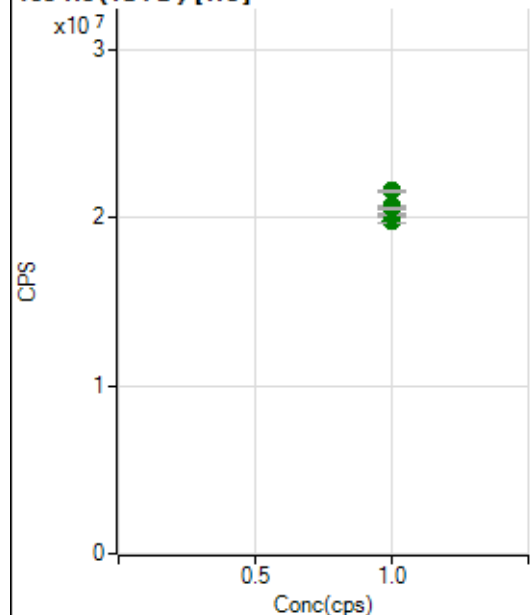
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		29669267.89		A	0.3
2	☐	1.000		29893415.39		A	0.4
3	☐	1.000		30034968.72		A	0.5
4	☐	1.000		29956424.00		A	0.2
5	☐	1.000		29653914.28		A	0.4
6	☐	1.000		30192570.94		A	2.4
7	☐	1.000		31657546.20		A	0.4
8	☐	1.000		30260241.77		A	0.6

159 Tb (ISTD) [He]

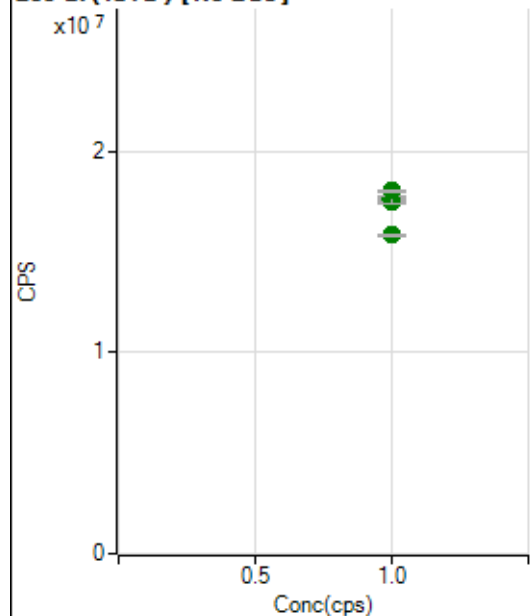
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		20205797.89		A	0.6
2	☐	1.000		20193799.42		A	0.1
3	☐	1.000		19735515.40		A	0.8
4	☐	1.000		20062372.76		A	1.1
5	☐	1.000		20023961.37		A	0.2
6	☐	1.000		20390363.31		A	0.7
7	☐	1.000		21264483.01		A	0.5
8	☐	1.000		20297698.86		A	0.6

165 Ho (ISTD) [No Gas]

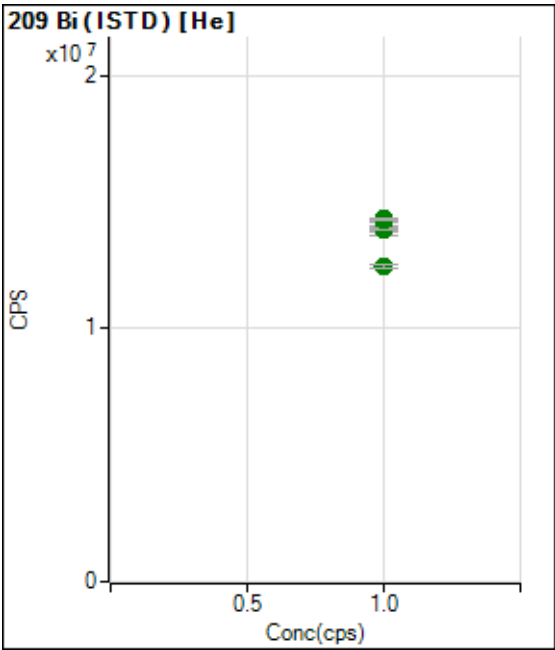
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		28865143.46		A	0.5
2	☐	1.000		29163866.79		A	0.4
3	☐	1.000		29193522.06		A	0.2
4	☐	1.000		28977761.79		A	0.9
5	☐	1.000		28548290.96		A	1.1
6	☐	1.000		29728830.39		A	2.3
7	☐	1.000		30831631.48		A	0.7
8	☐	1.000		29704538.73		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		20539721.36		A	0.2
2	☐	1.000		20674763.58		A	0.4
3	☐	1.000		19826599.84		A	1.9
4	☐	1.000		20210763.86		A	0.7
5	☐	1.000		20195291.09		A	0.6
6	☐	1.000		20547651.50		A	0.1
7	☐	1.000		21595417.73		A	0.5
8	☐	1.000		20556312.61		A	0.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		17451097.52		A	0.3
2	☐	1.000		17673876.12		A	0.5
3	☐	1.000		17673349.04		A	1.2
4	☐	1.000		17582455.99		A	0.2
5	☐	1.000		17478957.80		A	0.1
6	☐	1.000		17580825.71		A	2.0
7	☐	1.000		18035179.17		A	0.6
8	☐	1.000		15833845.60		A	0.6



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14251294.37		A	0.1
2	☐	1.000		14343616.18		A	0.9
3	☐	1.000		13877975.49		A	2.8
4	☐	1.000		13911455.35		A	0.7
5	☐	1.000		13938517.57		A	0.8
6	☐	1.000		13928534.66		A	0.7
7	☐	1.000		14324163.96		A	0.3
8	☐	1.000		12482114.81		A	1.1

US EPA Tune Check Report

Reviewed By: Mohan
On: 11/25/2024 6:19:44 AM
Inst Id : P7
Client Sample Id : TUNE001

Operator Name Jaswal
Acq/Data Batch D:\Agilent\ICPMH\1\DATA\IP7112224 MS2.b
Acq. Date-Time 2024-11-22 12:48:43
Report Comment ---
Instrument Name G8403A JP14410463

[No Gas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		34441	344412.28			0.471	5.000
24		193710	1937095.66			0.345	5.000
25		23575	235747.96			0.451	5.000
26		26627	266271.41			0.258	5.000
59		213110	2131095.60			0.520	5.000
113		27930	279303.80			0.625	5.000
115		340842	3408423.93			1.176	5.000
206		70045	700453.76			0.997	5.000
207		61133	611334.96			0.960	5.000
208		147176	1471763.32			0.979	5.000
220		0	2.20			25.913	

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
113	
115	
206	
207	
208	
220	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	34552	34549	34496	34448	34161
24	192686	193905	193426	194234	194297
25	23581	23574	23650	23669	23400
26	26582	26713	26668	26633	26539
59	214405	212536	213901	213106	211600
113	28066	28033	27913	28004	27635
115	345070	343042	340697	341003	334400
206	70801	70235	69934	70330	68927
207	61578	61595	61135	61206	60152
208	148694	148301	147400	146280	145207

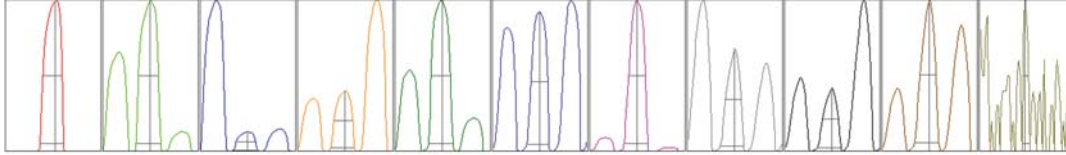
US EPA Tune Check Report

Reviewed By:Mohan
On:11/25/2024 6:19:44
AM
Inst Id :P7
ClientSampleId
:TUNE001

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
220	0	0	0	0	0

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	60106.76	9.10	8.90 - 9.10	
24	325828.66	24.00	23.90 - 24.10	
25	41267.36	25.00	24.90 - 25.10	
26	47091.06	26.00	25.90 - 26.10	
59	370253.83	59.00	58.90 - 59.10	
113	54455.75	113.00	112.90 - 113.10	
115	666092.80	115.00	114.90 - 115.10	
206	148574.90	206.00	205.90 - 206.10	
207	128252.00	207.00	206.90 - 207.10	
208	303923.98	208.00	207.90 - 208.10	
220	0.50	219.95	-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.60	0.736	0.900	
24	0.62	0.784	0.900	
25	0.59	0.759	0.900	
26	0.59	0.745	0.900	
59	0.60	0.779	0.900	
113	0.52	0.707	0.900	
115	0.52	0.758	0.900	
206	0.49	0.748	0.900	
207	0.49	0.746	0.900	
208	0.50	0.768	0.900	
220	0.19	0.244		

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.82 L/min Dilution Gas 0.40 L/min

US EPA Tune Check Report

Reviewed By: Mohan
On: 11/25/2024 6:19:44 AM
Inst Id : P7
ClientSampleId
TUNE001

RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.9 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	7.8 V	Deflect	15.8 V
Extract 2	-135.0 V	Cell Entrance	-30 V	Plate Bias	-35 V
Omega Bias	-65 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	190 V		

QP Parameters

Mass Gain	136	Axis Gain	0.9973	QP Bias	-3.0 V
Mass Offset	130	Axis Offset	0.17		

Hardware Settings

Torch

Torch H	0.0 mm	Torch V	0.5 mm

EM

Discriminator	4.8 mV	Analog HV	2217 V	Pulse HV	988 V

[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		69176	691757.78			3.563	
89		104144	1041441.21			3.427	
205		75248	752480.29			3.030	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	64817	69758	70601	70644	70058
89	97814	105645	105333	106509	105420
205	71212	75708	76472	76552	76296

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.82 L/min	Dilution Gas	0.40 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.3 V	Deflect	3.4 V

US EPA Tune Check Report

Reviewed By:Mohan
On:11/25/2024 6:19:44
AM
Inst Id :P7
ClientSampleId
TUNE001

Extract 2	-170.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-80 V	Cell Exit	-60 V		
Cell Parameters					
Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	3.9 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		
QP Parameters					
Mass Gain	136	Axis Gain	0.9973	QP Bias	-13.0 V
Mass Offset	130	Axis Offset	0.17		
Hardware Settings					
Torch					
Torch H	0.0 mm	Torch V	0.5 mm		
EM					
Discriminator	4.8 mV	Analog HV	2217 V	Pulse HV	988 V

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P7
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:25:55 DataFile Name : 004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.08	-0.15	0.06	0.00	N/A	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	N/A	ppb
Arsenic	75-2	0.00	0.00	0.00	0.00	N/A	ppb
Barium	135-1	0.00	0.00	0.00	0.00	N/A	ppb
Barium	137-1	0.00	0.00	-0.01	0.00	N/A	ppb
Beryllium	9-1	0.01	0.00	-0.01	0.00	N/A	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.00	-0.01	0.00	0.00	N/A	ppb
Cadmium	106-1	-0.05	0.13	-0.07	0.00	N/A	ppb
Cadmium	111-1	0.00	0.01	0.00	0.00	N/A	ppb
Calcium	43-1	-0.58	0.90	-0.32	0.00	N/A	ppb
Calcium	44-1	-1.21	0.73	0.48	0.00	N/A	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.02	-0.01	-0.02	0.00	N/A	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	N/A	ppb
Copper	63-2	0.00	0.02	-0.02	0.00	N/A	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				100		%
Iron	56-2	0.02	0.00	-0.02	0.00	N/A	ppb
Iron	57-2	-0.38	0.41	-0.04	0.00	N/A	ppb
Iron	54-2	-0.39	0.46	-0.06	0.00	N/A	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P7
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:25:55 DataFile Name : 004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.01	-0.01	0.01	0.00	N/A	ppb
Lead	207-1	0.00	0.00	-0.01	0.00	N/A	ppb
Lead	208-1	0.00	0.00	0.00	0.00	N/A	ppb
Lithium	6-1				100		%
Magnesium	24-2	0.10	-0.04	-0.06	0.00	N/A	ppb
Manganese	55-2	0.05	-0.04	-0.02	0.00	N/A	ppb
Molybdenum	94-1	-0.01	0.00	0.01	0.00	N/A	ppb
Molybdenum	95-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	96-1	0.01	0.00	-0.01	0.00	N/A	ppb
Molybdenum	97-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	N/A	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.01	-0.01	0.02	0.00	N/A	ppb
Phosphorus	31-2	-17.21	-16.39	-14.07	-15.89		ppb
Potassium	39-2	-0.30	0.02	0.28	0.00	N/A	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	0.20	0.19	-0.39	0.00	N/A	ppb
Selenium	77-2	-0.06	0.13	-0.06	0.00	N/A	ppb
Selenium	78-2	0.00	-0.27	0.27	0.00	N/A	ppb
Silicon	28-1	-0.07	0.08	-0.01	0.00	N/A	ppb
Silver	107-1	0.00	0.00	0.00	0.00	N/A	ppb
Silver	109-1	0.00	0.00	0.00	0.00	N/A	ppb
Sodium	23-2	-0.13	0.24	-0.12	0.00	N/A	ppb
Strontium	86-1	0.07	0.32	-0.39	0.00	N/A	ppb
Strontium	88-1	-0.06	0.03	0.02	0.00	N/A	ppb
Sulfur	34-1	-47.77	-12.63	-62.74	-41.05		ppb
Terbium	159-1				100		%
Terbium	159-2				100		%
Thallium	203-1	0.00	0.00	0.00	0.00	N/A	ppb
Thallium	205-1	0.00	0.00	0.00	0.00	N/A	ppb
Tin	118-1	-0.01	0.00	0.00	0.00	N/A	ppb
Titanium	47-1	-0.01	0.02	-0.01	0.00	N/A	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S00

Instrumnet Name :

P7

Client Sample ID :

S0

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:25:55

DataFile Name :

004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	N/A	ppb
Vanadium	51-2	0.00	0.00	0.00	0.00	N/A	ppb
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	0.04	-0.07	0.03	0.00	N/A	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	N/A	ppb
Zirconium	91-1	-0.01	0.01	0.00	0.00	N/A	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :S02Instrumnet Name :P7

Client Sample ID :S02Dilution Factor :1

Date & Time Acquired :2024-11-22 13:32:32DataFile Name :006CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	18.96	18.68	18.55	18.73	1.13	ppb
Antimony	121-1	2.09	2.11	2.12	2.10	0.80	ppb
Arsenic	75-2	1.10	1.03	1.02	1.05	4.10	ppb
Barium	135-1	10.08	10.25	10.21	10.18	0.87	ppb
Barium	137-1	10.35	10.46	10.43	10.41	0.58	ppb
Beryllium	9-1	1.04	1.07	0.97	1.03	4.92	ppb
Bismuth	209-1				101		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	1.02	1.07	0.89	0.99	9.13	ppb
Cadmium	106-1	1.55	1.72	0.09	1.12	79.67	ppb
Cadmium	111-1	1.13	1.15	1.03	1.11	5.83	ppb
Calcium	43-1	532.15	519.33	536.66	529.38	1.70	ppb
Calcium	44-1	517.88	530.37	533.34	527.20	1.56	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.11	2.11	2.07	2.10	1.01	ppb
Cobalt	59-2	1.06	1.08	1.10	1.08	2.10	ppb
Copper	63-2	2.00	2.05	2.00	2.02	1.25	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				101		%
Indium	115-1				101		%
Indium	115-2				100		%
Iron	56-2	54.92	54.72	54.58	54.74	0.31	ppb
Iron	57-2	56.18	58.27	58.19	57.54	2.06	ppb
Iron	54-2	57.31	55.85	57.38	56.85	1.52	ppb
Krypton	83-1						cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S02

Instrumnet Name :

P7

Client Sample ID :

S02

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:32:32

DataFile Name :

006CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.95	0.96	1.02	0.98	3.53	ppb
Lead	207-1	0.96	1.00	0.96	0.97	2.40	ppb
Lead	208-1	0.96	0.98	1.00	0.98	1.98	ppb
Lithium	6-1				102		%
Magnesium	24-2	495.90	497.80	497.48	497.06	0.20	ppb
Manganese	55-2	0.99	1.04	1.07	1.03	3.89	ppb
Molybdenum	94-1	5.79	5.73	5.84	5.79	0.90	ppb
Molybdenum	95-1	4.90	4.92	4.96	4.93	0.62	ppb
Molybdenum	96-1	4.86	4.98	4.92	4.92	1.20	ppb
Molybdenum	97-1	4.85	4.94	4.95	4.91	1.10	ppb
Molybdenum	98-1	4.83	4.92	4.97	4.91	1.43	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.11	1.03	1.09	1.08	4.03	ppb
Phosphorus	31-2	21.30	13.12	13.25	15.89	29.48	ppb
Potassium	39-2	515.66	514.60	520.64	516.96	0.62	ppb
Rhodium	103-1				101		%
Rhodium	103-2				100		%
Scandium	45-1				101		%
Scandium	45-2				100		%
Selenium	82-1	5.13	4.99	5.04	5.05	1.45	ppb
Selenium	77-2	5.45	5.35	3.47	4.75	23.49	ppb
Selenium	78-2	4.46	5.58	4.14	4.73	15.93	ppb
Silicon	28-1	0.45	0.57	0.61	0.54	15.70	ppb
Silver	107-1	1.05	1.07	1.09	1.07	1.82	ppb
Silver	109-1	1.07	1.08	1.09	1.08	1.12	ppb
Sodium	23-2	494.96	494.09	495.21	494.75	0.12	ppb
Strontium	86-1	24.65	26.05	25.25	25.32	2.77	ppb
Strontium	88-1	25.32	25.49	25.69	25.50	0.73	ppb
Sulfur	34-1	54.62	41.28	27.24	41.05	33.36	ppb
Terbium	159-1				101		%
Terbium	159-2				100		%
Thallium	203-1	0.99	0.99	0.99	0.99	0.32	ppb
Thallium	205-1	0.96	0.98	0.99	0.98	1.50	ppb
Tin	118-1	5.15	5.37	5.35	5.29	2.29	ppb
Titanium	47-1	4.96	5.09	4.90	4.98	1.87	ppb

LB Number :LB133596

Operator :Jaswal

Lab Sample ID :S02

Instrumnet Name :P7

Client Sample ID :S02

Dilution Factor :1

Date & Time Acquired :2024-11-22 13:32:32

DataFile Name :006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.93	0.92	0.93	0.92	0.62	ppb
Vanadium	51-2	5.01	5.11	5.12	5.08	1.19	ppb
Yttrium	89-1				101		%
Yttrium	89-2				101		%
Zinc	66-2	4.98	5.06	5.14	5.06	1.50	ppb
Zirconium	90-1	0.96	0.99	0.98	0.98	1.39	ppb
Zirconium	91-1	0.99	1.01	0.99	0.99	1.13	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :S03Instrumnet Name :P7

Client Sample ID :S03Dilution Factor :1

Date & Time Acquired :2024-11-22 13:35:48DataFile Name :007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1061.63	1022.61	1025.70	1036.65	2.09	ppb
Antimony	121-1	51.88	51.85	51.89	51.88	0.05	ppb
Arsenic	75-2	53.57	51.75	52.23	52.51	1.79	ppb
Barium	135-1	256.89	258.50	257.32	257.57	0.32	ppb
Barium	137-1	255.89	256.73	258.21	256.94	0.46	ppb
Beryllium	9-1	49.13	49.28	49.35	49.26	0.23	ppb
Bismuth	209-1				101		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	53.30	54.68	53.34	53.77	1.46	ppb
Cadmium	106-1	54.93	54.22	54.05	54.40	0.86	ppb
Cadmium	111-1	54.53	54.23	54.56	54.44	0.33	ppb
Calcium	43-1	5289.24	5412.33	5403.58	5368.38	1.28	ppb
Calcium	44-1	5026.89	5086.74	5030.13	5047.92	0.67	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	53.24	51.89	51.67	52.27	1.63	ppb
Cobalt	59-2	54.23	52.72	52.41	53.12	1.83	ppb
Copper	63-2	562.81	547.74	529.28	546.61	3.07	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				97		%
Indium	115-1				100		%
Indium	115-2				97		%
Iron	56-2	2767.46	2714.49	2717.28	2733.08	1.09	ppb
Iron	57-2	2927.00	2824.08	2778.67	2843.25	2.67	ppb
Iron	54-2	2917.38	2807.95	2817.42	2847.58	2.13	ppb
Krypton	83-1						cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S03

Instrumnet Name :

P7

Client Sample ID :

S03

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:35:48

DataFile Name :

007CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	247.26	245.30	246.60	246.39	0.40	ppb
Lead	207-1	248.38	249.10	249.63	249.04	0.25	ppb
Lead	208-1	247.64	247.44	248.30	247.80	0.18	ppb
Lithium	6-1				104		%
Magnesium	24-2	5417.71	5159.42	5117.33	5231.48	3.11	ppb
Manganese	55-2	533.06	512.71	526.33	524.04	1.98	ppb
Molybdenum	94-1	498.72	496.95	506.45	500.71	1.01	ppb
Molybdenum	95-1	501.69	502.23	507.12	503.68	0.59	ppb
Molybdenum	96-1	503.26	503.73	506.05	504.34	0.30	ppb
Molybdenum	97-1	502.74	500.57	508.38	503.90	0.80	ppb
Molybdenum	98-1	497.37	502.93	501.71	500.67	0.58	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	54.63	53.96	53.75	54.12	0.85	ppb
Phosphorus	31-2	1044.30	1044.88	1013.41	1034.20	1.74	ppb
Potassium	39-2	2621.80	2523.55	2514.56	2553.30	2.33	ppb
Rhodium	103-1				101		%
Rhodium	103-2				97		%
Scandium	45-1				100		%
Scandium	45-2				97		%
Selenium	82-1	50.89	50.85	51.98	51.24	1.25	ppb
Selenium	77-2	53.29	52.75	53.22	53.09	0.55	ppb
Selenium	78-2	54.14	50.93	54.29	53.12	3.58	ppb
Silicon	28-1	48.87	50.09	50.87	49.94	2.01	ppb
Silver	107-1	55.14	55.59	55.36	55.36	0.41	ppb
Silver	109-1	55.27	55.59	55.19	55.35	0.38	ppb
Sodium	23-2	5465.69	5298.22	5205.19	5323.03	2.48	ppb
Strontium	86-1	1262.36	1277.83	1284.72	1274.97	0.90	ppb
Strontium	88-1	1258.84	1260.22	1263.87	1260.98	0.21	ppb
Sulfur	34-1	1026.68	1035.16	1035.56	1032.47	0.49	ppb
Terbium	159-1				101		%
Terbium	159-2				98		%
Thallium	203-1	49.60	50.19	49.93	49.91	0.59	ppb
Thallium	205-1	49.48	50.01	49.47	49.65	0.62	ppb
Tin	118-1	52.69	52.77	52.95	52.80	0.26	ppb
Titanium	47-1	506.09	495.27	507.55	502.97	1.33	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S03

Instrumnet Name :

P7

Client Sample ID :

S03

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:35:48

DataFile Name :

007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	48.10	48.24	48.11	48.15	0.17	ppb
Vanadium	51-2	53.45	51.16	51.00	51.87	2.64	ppb
Yttrium	89-1				100		%
Yttrium	89-2				97		%
Zinc	66-2	547.19	530.26	528.63	535.36	1.92	ppb
Zirconium	90-1	49.99	49.35	50.67	50.00	1.32	ppb
Zirconium	91-1	50.52	50.57	51.40	50.83	0.97	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S04

Instrumnet Name :

P7

Client Sample ID :

S04

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:38:44

DataFile Name :

008CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2510.35	2574.37	2579.70	2554.81	1.51	ppb
Antimony	121-1	129.89	129.25	130.32	129.82	0.41	ppb
Arsenic	75-2	128.90	127.81	131.82	129.51	1.60	ppb
Barium	135-1	644.90	651.75	660.67	652.44	1.21	ppb
Barium	137-1	642.08	649.59	649.38	647.02	0.66	ppb
Beryllium	9-1	123.51	124.61	125.39	124.50	0.76	ppb
Bismuth	209-1				101		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	132.94	135.67	138.59	135.73	2.08	ppb
Cadmium	106-1	133.59	135.31	136.00	134.96	0.92	ppb
Cadmium	111-1	134.90	135.12	135.92	135.31	0.40	ppb
Calcium	43-1	13379.83	13572.35	13684.27	13545.48	1.14	ppb
Calcium	44-1	12610.46	12914.82	12849.96	12791.75	1.25	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	131.54	130.23	130.95	130.91	0.50	ppb
Cobalt	59-2	132.90	131.94	133.08	132.64	0.46	ppb
Copper	63-2	1337.97	1321.77	1349.79	1336.51	1.05	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				98		%
Indium	115-1				98		%
Indium	115-2				95		%
Iron	56-2	6809.47	6705.58	6772.92	6762.66	0.78	ppb
Iron	57-2	7051.15	6974.24	7142.55	7055.98	1.19	ppb
Iron	54-2	6850.64	6868.49	6969.77	6896.30	0.93	ppb
Krypton	83-1						cps

LB Number :	LB133596	Operator :	Jaswal
Lab Sample ID :	S04	Instrumnet Name :	P7
Client Sample ID :	S04	Dilution Factor :	1
Date & Time Acquired :	2024-11-22 13:38:44	DataFile Name :	008CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	621.82	642.50	625.14	629.82	1.76	ppb
Lead	207-1	624.51	635.21	631.39	630.37	0.86	ppb
Lead	208-1	626.33	639.70	631.11	632.38	1.07	ppb
Lithium	6-1				103		%
Magnesium	24-2	13045.81	13129.87	13269.60	13148.43	0.86	ppb
Manganese	55-2	1298.32	1307.79	1305.11	1303.74	0.37	ppb
Molybdenum	94-1	1250.25	1277.41	1282.84	1270.17	1.37	ppb
Molybdenum	95-1	1258.28	1270.12	1278.51	1268.97	0.80	ppb
Molybdenum	96-1	1261.43	1266.76	1286.13	1271.44	1.02	ppb
Molybdenum	97-1	1253.58	1263.90	1286.79	1268.09	1.34	ppb
Molybdenum	98-1	1243.07	1264.81	1298.13	1268.67	2.19	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	133.19	133.06	134.74	133.66	0.70	ppb
Phosphorus	31-2	2620.70	2570.90	2598.57	2596.72	0.96	ppb
Potassium	39-2	6347.91	6394.22	6411.51	6384.55	0.52	ppb
Rhodium	103-1				97		%
Rhodium	103-2				96		%
Scandium	45-1				98		%
Scandium	45-2				95		%
Selenium	82-1	130.10	128.99	130.77	129.95	0.69	ppb
Selenium	77-2	130.70	129.07	134.27	131.35	2.03	ppb
Selenium	78-2	131.44	128.17	131.94	130.51	1.57	ppb
Silicon	28-1	100.25	101.61	102.56	101.47	1.14	ppb
Silver	107-1	135.24	135.30	136.15	135.57	0.38	ppb
Silver	109-1	136.93	135.55	135.87	136.11	0.53	ppb
Sodium	23-2	13253.41	13410.19	13501.85	13388.48	0.94	ppb
Strontium	86-1	3159.81	3218.19	3252.50	3210.17	1.46	ppb
Strontium	88-1	3168.92	3208.36	3228.37	3201.88	0.94	ppb
Sulfur	34-1	2524.53	2531.26	2545.02	2533.60	0.41	ppb
Terbium	159-1				101		%
Terbium	159-2				99		%
Thallium	203-1	126.15	126.57	125.90	126.21	0.27	ppb
Thallium	205-1	125.33	127.23	125.44	126.00	0.85	ppb
Tin	118-1	130.26	132.51	131.57	131.45	0.86	ppb
Titanium	47-1	1256.57	1280.05	1306.78	1281.13	1.96	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S04

Instrumnet Name :

P7

Client Sample ID :

S04

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:38:44

DataFile Name :

008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	123.48	123.25	125.66	124.13	1.07	ppb
Vanadium	51-2	128.53	128.10	129.06	128.56	0.38	ppb
Yttrium	89-1				98		%
Yttrium	89-2				97		%
Zinc	66-2	1343.34	1316.98	1340.55	1333.62	1.09	ppb
Zirconium	90-1	125.81	126.25	126.71	126.26	0.36	ppb
Zirconium	91-1	126.06	128.00	129.79	127.95	1.46	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S05

Instrumnet Name :

P7

Client Sample ID :

S05

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:41:30

DataFile Name :

009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4984.32	5028.20	5015.36	5009.30	0.45	ppb
Antimony	121-1	254.61	256.67	253.02	254.77	0.72	ppb
Arsenic	75-2	253.53	257.39	254.58	255.16	0.78	ppb
Barium	135-1	1263.05	1269.11	1275.22	1269.13	0.48	ppb
Barium	137-1	1269.76	1278.01	1274.87	1274.21	0.33	ppb
Beryllium	9-1	243.42	247.00	243.01	244.48	0.90	ppb
Bismuth	209-1				100		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	258.95	262.62	261.93	261.17	0.75	ppb
Cadmium	106-1	258.75	261.73	259.46	259.98	0.60	ppb
Cadmium	111-1	259.69	262.35	261.64	261.22	0.53	ppb
Calcium	43-1	25102.97	25753.53	25476.94	25444.48	1.28	ppb
Calcium	44-1	25267.46	25520.52	25239.96	25342.65	0.61	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	256.49	253.80	255.29	255.20	0.53	ppb
Cobalt	59-2	259.00	259.86	256.66	258.51	0.64	ppb
Copper	63-2	2622.21	2602.41	2562.12	2595.58	1.18	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				98		%
Indium	115-1				96		%
Indium	115-2				95		%
Iron	56-2	13337.39	13295.91	13048.41	13227.24	1.18	ppb
Iron	57-2	13656.72	13330.99	12922.01	13303.24	2.77	ppb
Iron	54-2	13500.10	13418.99	13372.14	13430.41	0.48	ppb
Krypton	83-1						cps

LB Number :LB133596Operator :Jaswal

Lab Sample ID :S05Instrumnet Name :P7

Client Sample ID :S05Dilution Factor :1

Date & Time Acquired :2024-11-22 13:41:30DataFile Name :009CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1224.89	1258.32	1239.48	1240.90	1.35	ppb
Lead	207-1	1235.74	1257.47	1243.37	1245.53	0.89	ppb
Lead	208-1	1232.74	1250.97	1247.06	1243.59	0.77	ppb
Lithium	6-1				101		%
Magnesium	24-2	25432.77	25576.39	25390.60	25466.59	0.38	ppb
Manganese	55-2	2553.35	2576.80	2533.53	2554.56	0.85	ppb
Molybdenum	94-1	2478.82	2546.53	2505.48	2510.28	1.36	ppb
Molybdenum	95-1	2486.87	2548.95	2510.91	2515.58	1.24	ppb
Molybdenum	96-1	2476.33	2548.24	2524.43	2516.33	1.46	ppb
Molybdenum	97-1	2479.86	2542.86	2532.77	2518.49	1.34	ppb
Molybdenum	98-1	2467.12	2549.02	2509.50	2508.55	1.63	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	259.93	260.62	257.93	259.49	0.54	ppb
Phosphorus	31-2	5079.20	5093.35	4993.40	5055.32	1.07	ppb
Potassium	39-2	12390.70	12460.77	12383.04	12411.50	0.35	ppb
Rhodium	103-1				95		%
Rhodium	103-2				95		%
Scandium	45-1				95		%
Scandium	45-2				94		%
Selenium	82-1	251.17	257.87	254.52	254.52	1.32	ppb
Selenium	77-2	246.31	258.94	240.32	248.52	3.83	ppb
Selenium	78-2	248.43	251.39	250.38	250.07	0.60	ppb
Silicon	28-1	232.37	238.17	234.43	234.99	1.25	ppb
Silver	107-1	261.09	262.93	259.04	261.02	0.74	ppb
Silver	109-1	261.04	262.34	263.02	262.13	0.38	ppb
Sodium	23-2	25816.31	26008.48	25982.89	25935.89	0.40	ppb
Strontium	86-1	6234.18	6453.95	6378.45	6355.53	1.76	ppb
Strontium	88-1	6265.05	6350.96	6305.66	6307.22	0.68	ppb
Sulfur	34-1	4777.32	4886.38	4742.69	4802.13	1.56	ppb
Terbium	159-1				100		%
Terbium	159-2				99		%
Thallium	203-1	245.74	248.87	248.59	247.73	0.70	ppb
Thallium	205-1	247.39	250.16	248.80	248.78	0.56	ppb
Tin	118-1	255.78	257.66	259.21	257.55	0.67	ppb
Titanium	47-1	2491.19	2543.28	2484.04	2506.17	1.29	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S05 Instrumnet Name : P7
Client Sample ID : S05 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:41:30 DataFile Name : 009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	241.51	247.54	246.99	245.35	1.36	ppb
Vanadium	51-2	255.58	255.27	250.31	253.72	1.16	ppb
Yttrium	89-1				96		%
Yttrium	89-2				95		%
Zinc	66-2	2589.22	2596.23	2543.95	2576.47	1.10	ppb
Zirconium	90-1	246.75	254.83	252.02	251.20	1.63	ppb
Zirconium	91-1	248.66	256.32	252.89	252.62	1.52	ppb

LB Number :	LB133596	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P7
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2024-11-22 13:44:16	DataFile Name :	010CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9771.77	9640.48	9618.68	9676.98	0.86	ppb
Antimony	121-1	464.98	503.64	498.30	488.97	4.28	ppb
Arsenic	75-2	495.00	492.89	500.73	496.21	0.82	ppb
Barium	135-1	2333.14	2513.62	2502.38	2449.71	4.13	ppb
Barium	137-1	2358.43	2514.70	2495.50	2456.21	3.47	ppb
Beryllium	9-1	472.84	499.22	505.27	492.44	3.50	ppb
Bismuth	209-1				101		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	476.01	504.16	504.75	494.97	3.32	ppb
Cadmium	106-1	475.73	505.48	508.30	496.50	3.63	ppb
Cadmium	111-1	476.64	506.60	508.58	497.27	3.60	ppb
Calcium	43-1	48059.72	49710.00	49174.10	48981.27	1.72	ppb
Calcium	44-1	47129.33	49146.15	49304.57	48526.69	2.50	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	502.05	497.46	499.36	499.62	0.46	ppb
Cobalt	59-2	503.81	502.16	499.89	501.95	0.39	ppb
Copper	63-2	5057.52	5100.09	5020.72	5059.44	0.79	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				100		%
Indium	115-1				97		%
Indium	115-2				94		%
Iron	56-2	25990.13	25957.33	25724.09	25890.52	0.56	ppb
Iron	57-2	26163.36	26242.52	25831.71	26079.20	0.84	ppb
Iron	54-2	26428.61	26151.83	26007.06	26195.83	0.82	ppb
Krypton	83-1						cps

LB Number :	LB133596	Operator :	Jaswal
Lab Sample ID :	S06	Instrumnet Name :	P7
Client Sample ID :	S06	Dilution Factor :	1
Date & Time Acquired :	2024-11-22 13:44:16	DataFile Name :	010CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2359.51	2472.27	2472.89	2434.89	2.68	ppb
Lead	207-1	2367.94	2484.21	2493.70	2448.62	2.86	ppb
Lead	208-1	2354.41	2482.73	2495.90	2444.35	3.20	ppb
Lithium	6-1				100		%
Magnesium	24-2	49725.35	49259.71	49322.81	49435.96	0.51	ppb
Manganese	55-2	5051.21	4998.86	4975.63	5008.57	0.77	ppb
Molybdenum	94-1	4704.27	5003.57	4913.45	4873.76	3.15	ppb
Molybdenum	95-1	4685.60	4945.83	4909.65	4847.02	2.91	ppb
Molybdenum	96-1	4718.84	4942.44	4907.87	4856.38	2.48	ppb
Molybdenum	97-1	4721.60	4979.23	4950.06	4883.63	2.89	ppb
Molybdenum	98-1	4688.30	4968.64	4918.00	4858.31	3.08	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	513.51	513.61	498.60	508.58	1.70	ppb
Phosphorus	31-2	10036.04	9772.57	9876.84	9895.15	1.34	ppb
Potassium	39-2	24666.09	24457.34	24527.86	24550.43	0.43	ppb
Rhodium	103-1				95		%
Rhodium	103-2				94		%
Scandium	45-1				96		%
Scandium	45-2				94		%
Selenium	82-1	467.90	499.19	493.53	486.87	3.43	ppb
Selenium	77-2	499.05	485.72	497.02	493.93	1.45	ppb
Selenium	78-2	488.68	482.95	494.16	488.60	1.15	ppb
Silicon	28-1	530.25	554.24	550.13	544.88	2.35	ppb
Silver	107-1	480.58	510.84	508.09	499.84	3.35	ppb
Silver	109-1	478.50	510.69	511.48	500.22	3.76	ppb
Sodium	23-2	51360.42	51233.38	50243.13	50945.64	1.20	ppb
Strontium	86-1	11522.21	12593.88	12461.85	12192.65	4.79	ppb
Strontium	88-1	11710.12	12458.54	12411.62	12193.43	3.44	ppb
Sulfur	34-1	8938.22	9273.64	9314.37	9175.41	2.25	ppb
Terbium	159-1				102		%
Terbium	159-2				101		%
Thallium	203-1	472.87	495.28	500.82	489.66	3.02	ppb
Thallium	205-1	474.63	491.83	497.86	488.11	2.47	ppb
Tin	118-1	467.32	506.45	504.66	492.81	4.48	ppb
Titanium	47-1	4760.50	4985.08	4925.94	4890.51	2.38	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S06 Instrumnet Name : P7
Client Sample ID : S06 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:44:16 DataFile Name : 010CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	470.31	502.79	499.66	490.92	3.65	ppb
Vanadium	51-2	508.34	500.58	498.74	502.55	1.01	ppb
Yttrium	89-1				98		%
Yttrium	89-2				97		%
Zinc	66-2	5072.64	5091.90	4958.78	5041.11	1.43	ppb
Zirconium	90-1	467.00	500.83	494.54	487.45	3.69	ppb
Zirconium	91-1	466.54	498.52	498.87	487.98	3.80	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S07

Instrumnet Name :

P7

Client Sample ID :

S07

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:46:59

DataFile Name :

011CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	19566.32	19437.44	19323.85	19442.54	0.62	ppb
Antimony	121-1	1001.39	1011.35	998.14	1003.62	0.69	ppb
Arsenic	75-2	995.90	1004.85	999.01	999.92	0.45	ppb
Barium	135-1	4977.47	5076.77	4995.43	5016.55	1.05	ppb
Barium	137-1	4986.24	5039.61	5012.39	5012.74	0.53	ppb
Beryllium	9-1	1002.70	998.40	1014.68	1005.26	0.84	ppb
Bismuth	209-1				103		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	991.88	996.94	1005.75	998.19	0.70	ppb
Cadmium	106-1	991.79	1001.81	999.77	997.79	0.53	ppb
Cadmium	111-1	993.72	996.80	1000.61	997.05	0.35	ppb
Calcium	43-1	102443.05	100766.81	101581.67	101597.18	0.83	ppb
Calcium	44-1	101687.89	100280.79	100790.34	100919.67	0.71	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	996.83	999.94	997.34	998.04	0.17	ppb
Cobalt	59-2	995.33	997.49	994.54	995.78	0.15	ppb
Copper	63-2	9988.90	9932.04	9878.77	9933.24	0.55	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				107		%
Holmium	165-2				105		%
Indium	115-1				99		%
Indium	115-2				98		%
Iron	56-2	51466.02	51645.89	51435.16	51515.69	0.22	ppb
Iron	57-2	52463.07	51834.07	50931.08	51742.74	1.49	ppb
Iron	54-2	52731.01	52084.99	52074.04	52296.68	0.72	ppb
Krypton	83-1						cps

LB Number :	LB133596	Operator :	Jaswal
Lab Sample ID :	S07	Instrumnet Name :	P7
Client Sample ID :	S07	Dilution Factor :	1
Date & Time Acquired :	2024-11-22 13:46:59	DataFile Name :	011CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	4978.16	5077.44	5047.62	5034.41	1.01	ppb
Lead	207-1	4958.11	5079.51	5040.94	5026.19	1.23	ppb
Lead	208-1	4965.48	5067.90	5052.46	5028.62	1.10	ppb
Lithium	6-1				99		%
Magnesium	24-2	100582.68	100133.74	99784.78	100167.06	0.40	ppb
Manganese	55-2	10002.40	10026.26	9893.81	9974.16	0.71	ppb
Molybdenum	94-1	10071.60	10045.64	10056.73	10057.99	0.13	ppb
Molybdenum	95-1	10059.86	10044.91	10105.34	10070.04	0.31	ppb
Molybdenum	96-1	10028.81	10070.31	10095.37	10064.83	0.33	ppb
Molybdenum	97-1	10083.77	9996.27	10073.28	10051.11	0.48	ppb
Molybdenum	98-1	10037.03	10051.80	10110.19	10066.34	0.38	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	995.97	995.11	985.07	992.05	0.61	ppb
Phosphorus	31-2	20088.78	20041.19	19944.42	20024.80	0.37	ppb
Potassium	39-2	48991.12	49335.74	48908.64	49078.50	0.46	ppb
Rhodium	103-1				97		%
Rhodium	103-2				96		%
Scandium	45-1				99		%
Scandium	45-2				99		%
Selenium	82-1	996.59	1010.90	1006.77	1004.75	0.73	ppb
Selenium	77-2	997.88	1008.96	1000.53	1002.46	0.58	ppb
Selenium	78-2	993.96	1009.58	1010.99	1004.84	0.94	ppb
Silicon	28-1	1004.73	971.42	976.91	984.35	1.81	ppb
Silver	107-1	985.95	1002.28	998.99	995.74	0.87	ppb
Silver	109-1	985.70	998.83	1001.06	995.20	0.83	ppb
Sodium	23-2	101939.55	101982.57	101171.02	101697.71	0.45	ppb
Strontium	86-1	24862.73	25212.34	25271.14	25115.40	0.88	ppb
Strontium	88-1	24954.01	25261.80	25170.64	25128.82	0.63	ppb
Sulfur	34-1	20563.91	20400.91	20403.00	20455.94	0.46	ppb
Terbium	159-1				107		%
Terbium	159-2				105		%
Thallium	203-1	995.40	1018.62	1002.75	1005.59	1.18	ppb
Thallium	205-1	1000.32	1015.60	1002.51	1006.14	0.82	ppb
Tin	118-1	991.44	1003.08	1007.77	1000.76	0.84	ppb
Titanium	47-1	10182.10	9938.18	10027.22	10049.16	1.23	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S07

Instrumnet Name :

P7

Client Sample ID :

S07

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:46:59

DataFile Name :

011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	1001.84	1016.69	999.18	1005.90	0.94	ppb
Vanadium	51-2	1002.43	997.79	991.54	997.25	0.55	ppb
Yttrium	89-1				102		%
Yttrium	89-2				101		%
Zinc	66-2	10006.72	9934.51	9903.09	9948.11	0.53	ppb
Zirconium	90-1	1006.35	1006.14	1004.96	1005.82	0.07	ppb
Zirconium	91-1	1011.40	997.62	1005.81	1004.95	0.69	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S08 Instrumnet Name : P7
Client Sample ID : S08 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:49:45 DataFile Name : 012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	100081.37	99994.54	100348.87	100141.59	0.18	ppb
Antimony	121-1	0.46	0.49	0.54	0.50	7.64	ppb
Arsenic	75-2	0.55	0.53	0.49	0.52	6.01	ppb
Barium	135-1	2.15	2.05	1.95	2.05	4.74	ppb
Barium	137-1	2.18	2.03	2.00	2.07	4.70	ppb
Beryllium	9-1	0.18	0.07	0.12	0.12	42.28	ppb
Bismuth	209-1				91		%
Bismuth	209-2				88		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.40	0.43	0.46	0.43	7.12	ppb
Cadmium	106-1	-0.64	-0.73	-0.36	-0.57		ppb
Cadmium	111-1	0.15	0.10	0.14	0.13	20.00	ppb
Calcium	43-1	495404.96	507571.14	496215.00	499730.36	1.36	ppb
Calcium	44-1	496763.58	505587.30	497464.52	499938.46	0.98	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.20	1.18	1.23	1.20	2.05	ppb
Cobalt	59-2	2.59	2.52	2.58	2.56	1.52	ppb
Copper	63-2	1.65	1.58	1.59	1.60	2.61	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				100		%
Indium	115-1				95		%
Indium	115-2				96		%
Iron	56-2	248204.84	247760.34	252703.72	249556.30	1.10	ppb
Iron	57-2	250241.96	248397.00	249800.40	249479.79	0.39	ppb
Iron	54-2	250421.19	246380.81	251262.78	249354.93	1.05	ppb
Krypton	83-1						cps

LB Number :	LB133596	Operator :	Jaswal
Lab Sample ID :	S08	Instrumnet Name :	P7
Client Sample ID :	S08	Dilution Factor :	1
Date & Time Acquired :	2024-11-22 13:49:45	DataFile Name :	012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.76	0.61	0.55	0.64	16.38	ppb
Lead	207-1	0.71	0.59	0.53	0.61	15.38	ppb
Lead	208-1	0.74	0.60	0.54	0.62	16.39	ppb
Lithium	6-1				96		%
Magnesium	24-2	499629.03	491019.48	509294.92	499981.14	1.83	ppb
Manganese	55-2	3.55	3.38	3.52	3.48	2.60	ppb
Molybdenum	94-1	2.77	2.42	2.26	2.48	10.63	ppb
Molybdenum	95-1	1.98	1.62	1.53	1.71	13.67	ppb
Molybdenum	96-1	3.15	2.88	2.76	2.93	6.71	ppb
Molybdenum	97-1	1.91	1.55	1.44	1.63	15.23	ppb
Molybdenum	98-1	1.85	1.56	1.43	1.61	13.62	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.78	2.65	2.86	2.76	3.89	ppb
Phosphorus	31-2	-10.48	-12.95	-12.01	-11.81		ppb
Potassium	39-2	252681.22	247505.21	250502.83	250229.75	1.04	ppb
Rhodium	103-1				90		%
Rhodium	103-2				89		%
Scandium	45-1				99		%
Scandium	45-2				102		%
Selenium	82-1	0.99	0.54	1.02	0.85	31.36	ppb
Selenium	77-2	0.03	0.50	0.41	0.31	79.61	ppb
Selenium	78-2	-0.28	-0.52	0.02	-0.26		ppb
Silicon	28-1	1.33	1.27	0.88	1.16	20.87	ppb
Silver	107-1	0.15	0.12	0.11	0.13	13.17	ppb
Silver	109-1	0.15	0.13	0.11	0.13	16.90	ppb
Sodium	23-2	495182.73	496634.56	506663.69	499493.66	1.25	ppb
Strontium	86-1	86.64	87.45	83.84	85.98	2.20	ppb
Strontium	88-1	84.75	85.58	84.32	84.88	0.75	ppb
Sulfur	34-1	-728.28	-549.73	-484.77	-587.59		ppb
Terbium	159-1				102		%
Terbium	159-2				100		%
Thallium	203-1	0.10	0.06	0.05	0.07	36.88	ppb
Thallium	205-1	0.09	0.06	0.05	0.07	29.22	ppb
Tin	118-1	0.10	0.07	0.05	0.07	33.72	ppb
Titanium	47-1	1.65	1.34	1.23	1.41	15.71	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S08

Instrumnet Name :

P7

Client Sample ID :

S08

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:49:45

DataFile Name :

012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.11	0.07	0.06	0.08	34.59	ppb
Vanadium	51-2	0.26	0.26	0.26	0.26	0.38	ppb
Yttrium	89-1				99		%
Yttrium	89-2				102		%
Zinc	66-2	-2.25	-2.26	-2.31	-2.27		ppb
Zirconium	90-1	0.58	0.56	0.55	0.56	2.60	ppb
Zirconium	91-1	0.60	0.57	0.56	0.58	3.06	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICV001 Instrumnet Name : P7
Client Sample ID : ICV001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:01:56 DataFile Name : 013ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	470.55	475.73	483.14	476.47	1.33	ppb
Antimony	121-1	198.26	206.91	212.48	205.88	3.48	ppb
Arsenic	75-2	205.38	207.44	206.75	206.52	0.51	ppb
Barium	135-1	97.35	104.37	105.57	102.43	4.33	ppb
Barium	137-1	99.07	105.47	107.09	103.88	4.08	ppb
Beryllium	9-1	94.96	99.01	99.00	97.66	2.39	ppb
Bismuth	209-1				103		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	91.04	96.72	98.55	95.44	4.11	ppb
Cadmium	106-1	86.53	93.49	96.89	92.30	5.72	ppb
Cadmium	111-1	103.43	109.43	111.20	108.02	3.77	ppb
Calcium	43-1	1883.78	2060.23	2055.14	1999.72	5.02	ppb
Calcium	44-1	1795.60	1916.69	1937.29	1883.19	4.07	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	103.14	104.40	105.55	104.37	1.15	ppb
Cobalt	59-2	102.80	107.06	107.24	105.70	2.38	ppb
Copper	63-2	98.97	101.03	102.24	100.75	1.64	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				103		%
Holmium	165-2				103		%
Indium	115-1				103		%
Indium	115-2				103		%
Iron	56-2	2042.38	2082.32	2086.79	2070.50	1.18	ppb
Iron	57-2	2101.37	2155.44	2175.71	2144.17	1.79	ppb
Iron	54-2	2186.39	2230.90	2267.59	2228.30	1.82	ppb
Krypton	83-1						cps

LB Number :	LB133596		Operator :	Jaswal			
Lab Sample ID :	ICV001		Instrumnet Name :	P7			
Client Sample ID :	ICV001		Dilution Factor :	1			
Date & Time Acquired :	2024-11-22 14:01:56		DataFile Name :	013ICV.d			
Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	198.75	210.73	210.51	206.66	3.32	ppb
Lead	207-1	190.95	202.88	200.68	198.17	3.20	ppb
Lead	208-1	194.07	206.15	205.72	201.98	3.39	ppb
Lithium	6-1				104		%
Magnesium	24-2	1098.21	1122.57	1118.39	1113.06	1.17	ppb
Manganese	55-2	100.12	102.18	102.30	101.54	1.21	ppb
Molybdenum	94-1	0.09	0.12	0.14	0.12	19.61	ppb
Molybdenum	95-1	0.03	0.03	0.03	0.03	9.02	ppb
Molybdenum	96-1	0.06	0.06	0.05	0.06	8.02	ppb
Molybdenum	97-1	0.03	0.03	0.03	0.03	8.14	ppb
Molybdenum	98-1	0.04	0.03	0.04	0.04	7.13	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	104.66	106.79	108.03	106.49	1.60	ppb
Phosphorus	31-2	-17.83	-12.44	-16.99	-15.75		ppb
Potassium	39-2	1930.75	1986.42	1994.67	1970.61	1.76	ppb
Rhodium	103-1				104		%
Rhodium	103-2				103		%
Scandium	45-1				106		%
Scandium	45-2				104		%
Selenium	82-1	193.47	204.90	209.37	202.58	4.05	ppb
Selenium	77-2	210.81	212.12	218.11	213.68	1.82	ppb
Selenium	78-2	205.44	206.51	209.13	207.02	0.92	ppb
Silicon	28-1	-0.89	-0.47	-0.33	-0.56		ppb
Silver	107-1	51.43	54.34	55.45	53.74	3.86	ppb
Silver	109-1	51.34	54.37	55.27	53.66	3.83	ppb
Sodium	23-2	1969.82	2039.89	2035.73	2015.14	1.95	ppb
Strontium	86-1	5.57	5.79	6.32	5.89	6.60	ppb
Strontium	88-1	5.70	6.21	6.21	6.04	4.88	ppb
Sulfur	34-1	-228.70	-85.85	-60.97	-125.17		ppb
Terbium	159-1				102		%
Terbium	159-2				103		%
Thallium	203-1	194.65	204.04	209.89	202.86	3.79	ppb
Thallium	205-1	195.32	202.89	206.24	201.48	2.78	ppb
Tin	118-1	-0.01	0.00	0.02	0.00	552.47	ppb
Titanium	47-1	0.03	0.00	0.00	0.01	145.77	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICV001 Instrumnet Name : P7
Client Sample ID : ICV001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:01:56 DataFile Name : 013ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	20.52	ppb
Vanadium	51-2	97.71	99.97	101.25	99.64	1.80	ppb
Yttrium	89-1				104		%
Yttrium	89-2				104		%
Zinc	66-2	197.37	203.12	203.58	201.36	1.72	ppb
Zirconium	90-1	0.03	0.04	0.05	0.04	23.67	ppb
Zirconium	91-1	0.09	0.09	0.10	0.09	7.48	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :ICB001Instrumnet Name :P7

Client Sample ID :ICB001Dilution Factor :1

Date & Time Acquired :2024-11-22 14:05:00DataFile Name :014CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.03	0.12	0.09	0.08	55.73	ppb
Antimony	121-1	0.10	0.09	0.10	0.09	5.53	ppb
Arsenic	75-2	0.00	0.01	0.01	0.01	121.81	ppb
Barium	135-1	0.01	0.00	-0.01	0.00	566.79	ppb
Barium	137-1	0.00	0.00	-0.01	0.00		ppb
Beryllium	9-1	0.03	0.02	0.02	0.02	15.67	ppb
Bismuth	209-1				101		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.01	0.03	-0.02	0.00	647.45	ppb
Cadmium	106-1	-0.02	-0.29	-0.63	-0.31		ppb
Cadmium	111-1	0.02	-0.02	-0.04	-0.01		ppb
Calcium	43-1	-4.03	1.41	6.31	1.23	421.04	ppb
Calcium	44-1	2.51	2.57	2.96	2.68	9.14	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.01	0.04	0.02	0.02	82.65	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00		ppb
Copper	63-2	0.00	0.02	0.00	0.00	284.12	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				102		%
Indium	115-1				101		%
Indium	115-2				102		%
Iron	56-2	0.06	0.80	0.05	0.30	140.01	ppb
Iron	57-2	-0.51	0.34	-0.66	-0.27		ppb
Iron	54-2	-0.08	0.31	-0.03	0.07	325.52	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICB001 Instrumnet Name : P7
Client Sample ID : ICB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:05:00 DataFile Name : 014CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.07	0.04	0.04	0.05	31.73	ppb
Lead	207-1	0.05	0.05	0.02	0.04	43.28	ppb
Lead	208-1	0.06	0.04	0.03	0.04	40.11	ppb
Lithium	6-1				104		%
Magnesium	24-2	0.00	0.09	0.15	0.08	88.64	ppb
Manganese	55-2	0.01	0.04	-0.02	0.01	412.99	ppb
Molybdenum	94-1	0.03	0.02	0.02	0.02	15.88	ppb
Molybdenum	95-1	0.00	0.00	0.00	0.00		ppb
Molybdenum	96-1	0.00	0.00	0.01	0.00	108.96	ppb
Molybdenum	97-1	-0.01	-0.01	0.01	0.00		ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	41.52	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.06	0.07	0.10	0.08	23.30	ppb
Phosphorus	31-2	-16.85	-13.11	-15.77	-15.24		ppb
Potassium	39-2	6.96	8.39	6.38	7.24	14.30	ppb
Rhodium	103-1				103		%
Rhodium	103-2				103		%
Scandium	45-1				103		%
Scandium	45-2				104		%
Selenium	82-1	-0.04	-0.24	-0.26	-0.18		ppb
Selenium	77-2	0.12	-0.06	-0.06	0.00		ppb
Selenium	78-2	-0.26	-0.55	-0.74	-0.52		ppb
Silicon	28-1	-0.34	-0.51	-0.39	-0.41		ppb
Silver	107-1	0.02	0.01	0.01	0.01	40.47	ppb
Silver	109-1	0.02	0.01	0.01	0.01	28.03	ppb
Sodium	23-2	2.64	3.78	2.51	2.98	23.49	ppb
Strontium	86-1	-0.07	-0.40	-0.20	-0.22		ppb
Strontium	88-1	-0.15	-0.19	-0.03	-0.12		ppb
Sulfur	34-1	-7.65	-41.02	-14.43	-21.03		ppb
Terbium	159-1				102		%
Terbium	159-2				102		%
Thallium	203-1	0.04	0.02	0.02	0.03	34.89	ppb
Thallium	205-1	0.04	0.02	0.02	0.02	41.24	ppb
Tin	118-1	0.00	0.02	0.00	0.01	147.53	ppb
Titanium	47-1	-0.04	-0.02	-0.03	-0.03		ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

ICB001

Instrumnet Name :

P7

Client Sample ID :

ICB001

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:05:00

DataFile Name :

014CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.00	0.00	0.00	0.00		ppb
Yttrium	89-1				102		%
Yttrium	89-2				104		%
Zinc	66-2	-0.19	0.21	-0.03	0.00		ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	38.59	ppb
Zirconium	91-1	0.01	0.01	0.01	0.01	2.85	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICSA001 Instrumnet Name : P7
Client Sample ID : ICSA001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:08:17 DataFile Name : 015ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	92038.18	92120.55	91375.15	91844.63	0.44	ppb
Antimony	121-1	1.14	1.17	1.19	1.17	2.56	ppb
Arsenic	75-2	0.34	0.34	0.35	0.34	2.20	ppb
Barium	135-1	1.45	1.44	1.43	1.44	0.91	ppb
Barium	137-1	1.41	1.47	1.45	1.44	2.15	ppb
Beryllium	9-1	0.30	0.27	0.30	0.29	5.01	ppb
Bismuth	209-1				97		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	9.93	10.16	9.70	9.93	2.29	ppb
Cadmium	106-1	-1.61	-1.95	-2.00	-1.85		ppb
Cadmium	111-1	0.26	0.25	0.28	0.27	6.21	ppb
Calcium	43-1	100406.96	102249.06	101160.78	101272.26	0.91	ppb
Calcium	44-1	100710.16	102158.82	100896.01	101254.99	0.78	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	20.73	20.86	20.72	20.77	0.37	ppb
Cobalt	59-2	1.23	1.26	1.26	1.25	1.02	ppb
Copper	63-2	7.43	7.46	7.49	7.46	0.35	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				104		%
Holmium	165-2				103		%
Indium	115-1				98		%
Indium	115-2				99		%
Iron	56-2	104638.98	104502.49	104358.40	104499.96	0.13	ppb
Iron	57-2	104361.40	103567.96	104815.04	104248.13	0.61	ppb
Iron	54-2	103310.61	104643.78	105785.06	104579.81	1.18	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICSA001 Instrumnet Name : P7
Client Sample ID : ICSA001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:08:17 DataFile Name : 015ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	5.16	4.98	5.00	5.05	1.90	ppb
Lead	207-1	4.66	4.53	4.38	4.52	3.13	ppb
Lead	208-1	4.81	4.67	4.61	4.70	2.25	ppb
Lithium	6-1				93		%
Magnesium	24-2	95516.73	96665.15	96071.52	96084.47	0.60	ppb
Manganese	55-2	7.89	7.94	7.97	7.93	0.52	ppb
Molybdenum	94-1	1599.75	1643.74	1604.45	1615.98	1.49	ppb
Molybdenum	95-1	1972.12	2002.15	1953.99	1976.08	1.23	ppb
Molybdenum	96-1	1914.80	1980.14	1934.38	1943.11	1.73	ppb
Molybdenum	97-1	1961.13	1996.29	1969.30	1975.57	0.93	ppb
Molybdenum	98-1	1955.79	1984.12	1973.08	1971.00	0.72	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.69	5.73	5.57	5.67	1.47	ppb
Phosphorus	31-2	99705.85	102386.99	99717.65	100603.50	1.54	ppb
Potassium	39-2	98102.66	99121.28	98903.71	98709.22	0.54	ppb
Rhodium	103-1				95		%
Rhodium	103-2				97		%
Scandium	45-1				99		%
Scandium	45-2				101		%
Selenium	82-1	0.23	-0.20	-0.26	-0.08		ppb
Selenium	77-2	0.03	0.12	0.12	0.09	59.16	ppb
Selenium	78-2	-0.05	0.07	-0.07	-0.01		ppb
Silicon	28-1	4.56	4.74	4.68	4.66	1.93	ppb
Silver	107-1	0.03	0.03	0.03	0.03	6.40	ppb
Silver	109-1	0.03	0.03	0.03	0.03	0.59	ppb
Sodium	23-2	100565.19	101771.42	101354.68	101230.43	0.61	ppb
Strontium	86-1	876.90	900.10	877.58	884.86	1.49	ppb
Strontium	88-1	881.85	888.68	891.04	887.19	0.54	ppb
Sulfur	34-1	101174.04	102336.89	99997.15	101169.36	1.16	ppb
Terbium	159-1				104		%
Terbium	159-2				103		%
Thallium	203-1	0.09	0.11	0.12	0.11	16.50	ppb
Thallium	205-1	0.10	0.11	0.12	0.11	6.43	ppb
Tin	118-1	0.17	0.20	0.18	0.18	7.81	ppb
Titanium	47-1	2016.61	2065.88	2055.99	2046.16	1.27	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

ICSA001

Instrumnet Name :

P7

Client Sample ID :

ICSA001

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:08:17

DataFile Name :

015ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.02	0.02	0.01	0.02	10.94	ppb
Vanadium	51-2	0.17	0.20	0.19	0.19	6.29	ppb
Yttrium	89-1				100		%
Yttrium	89-2				102		%
Zinc	66-2	10.31	10.45	10.25	10.34	1.00	ppb
Zirconium	90-1	0.02	0.02	0.03	0.02	31.30	ppb
Zirconium	91-1	0.02	0.02	0.03	0.02	22.59	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

ICSAB001

Instrumnet Name :

P7

Client Sample ID :

ICSAB001

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:11:18

DataFile Name :

016ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	90734.80	93446.88	91174.70	91785.46	1.59	ppb
Antimony	121-1	21.38	21.60	21.98	21.65	1.40	ppb
Arsenic	75-2	20.51	20.50	20.44	20.48	0.20	ppb
Barium	135-1	21.55	21.52	21.89	21.66	0.95	ppb
Barium	137-1	21.65	22.17	22.14	21.99	1.32	ppb
Beryllium	9-1	19.83	20.58	20.13	20.18	1.87	ppb
Bismuth	209-1				101		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	25.67	26.47	26.23	26.13	1.57	ppb
Cadmium	106-1	15.74	15.36	15.03	15.38	2.30	ppb
Cadmium	111-1	20.18	20.31	20.55	20.34	0.91	ppb
Calcium	43-1	99290.61	102229.48	101934.90	101151.66	1.60	ppb
Calcium	44-1	99189.97	101663.79	101492.13	100781.96	1.37	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	41.10	41.57	40.64	41.10	1.14	ppb
Cobalt	59-2	21.85	21.74	21.36	21.65	1.19	ppb
Copper	63-2	26.55	27.14	26.42	26.70	1.44	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				109		%
Holmium	165-2				104		%
Indium	115-1				103		%
Indium	115-2				101		%
Iron	56-2	103968.02	104894.99	102778.46	103880.49	1.02	ppb
Iron	57-2	103963.45	104584.45	102724.17	103757.36	0.91	ppb
Iron	54-2	103178.34	106122.40	103379.36	104226.70	1.58	ppb
Krypton	83-1						cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

ICSAB001

Instrumnet Name :

P7

Client Sample ID :

ICSAB001

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:11:18

DataFile Name :

016ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	26.47	26.89	27.36	26.91	1.64	ppb
Lead	207-1	25.34	25.43	25.71	25.50	0.76	ppb
Lead	208-1	25.65	26.03	26.27	25.98	1.21	ppb
Lithium	6-1				90		%
Magnesium	24-2	94576.31	98655.58	94559.55	95930.48	2.46	ppb
Manganese	55-2	27.74	28.18	27.37	27.76	1.45	ppb
Molybdenum	94-1	1597.68	1608.91	1608.48	1605.02	0.40	ppb
Molybdenum	95-1	1942.95	1943.25	1942.40	1942.87	0.02	ppb
Molybdenum	96-1	1901.10	1926.88	1908.60	1912.19	0.69	ppb
Molybdenum	97-1	1921.61	1945.40	1943.29	1936.77	0.68	ppb
Molybdenum	98-1	1925.80	1937.26	1933.53	1932.20	0.30	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	25.23	25.81	25.45	25.50	1.16	ppb
Phosphorus	31-2	99585.78	102163.78	99698.12	100482.56	1.45	ppb
Potassium	39-2	99615.78	100180.07	98069.18	99288.34	1.10	ppb
Rhodium	103-1				100		%
Rhodium	103-2				99		%
Scandium	45-1				102		%
Scandium	45-2				102		%
Selenium	82-1	19.69	19.55	19.22	19.48	1.24	ppb
Selenium	77-2	18.84	21.02	20.74	20.20	5.87	ppb
Selenium	78-2	18.36	17.92	19.94	18.74	5.67	ppb
Silicon	28-1	4.61	4.65	4.38	4.54	3.10	ppb
Silver	107-1	19.40	19.67	19.88	19.65	1.23	ppb
Silver	109-1	19.36	19.53	19.91	19.60	1.44	ppb
Sodium	23-2	100515.26	102410.72	100845.75	101257.25	1.00	ppb
Strontium	86-1	861.67	871.85	877.24	870.26	0.91	ppb
Strontium	88-1	859.76	870.05	859.66	863.16	0.69	ppb
Sulfur	34-1	95746.31	96868.62	98928.57	97181.17	1.66	ppb
Terbium	159-1				108		%
Terbium	159-2				105		%
Thallium	203-1	21.81	22.14	22.51	22.15	1.59	ppb
Thallium	205-1	22.06	22.30	22.52	22.29	1.01	ppb
Tin	118-1	0.11	0.10	0.12	0.11	6.54	ppb
Titanium	47-1	2007.37	2060.78	2042.50	2036.88	1.33	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

ICSAB001

Instrumnet Name :

P7

Client Sample ID :

ICSAB001

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:11:18

DataFile Name :

016ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.02	0.02	0.02	0.02	4.99	ppb
Vanadium	51-2	20.11	20.59	19.85	20.18	1.88	ppb
Yttrium	89-1				106		%
Yttrium	89-2				105		%
Zinc	66-2	29.73	30.49	29.42	29.88	1.85	ppb
Zirconium	90-1	0.02	0.01	0.02	0.01	14.14	ppb
Zirconium	91-1	0.01	0.02	0.02	0.02	50.71	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :CCV001Instrumnet Name :P7

Client Sample ID :CCV001Dilution Factor :1

Date & Time Acquired :2024-11-22 14:14:21DataFile Name :017CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	49188.32	48513.93	48713.89	48805.38	0.71	ppb
Antimony	121-1	507.18	523.76	526.13	519.02	1.99	ppb
Arsenic	75-2	522.95	521.03	524.38	522.79	0.32	ppb
Barium	135-1	2528.28	2545.53	2586.11	2553.30	1.16	ppb
Barium	137-1	2509.47	2587.51	2595.86	2564.28	1.86	ppb
Beryllium	9-1	506.68	516.08	507.58	510.11	1.02	ppb
Bismuth	209-1				102		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	509.55	520.01	518.83	516.13	1.11	ppb
Cadmium	106-1	512.60	526.51	523.06	520.72	1.39	ppb
Cadmium	111-1	512.87	530.85	532.65	525.45	2.08	ppb
Calcium	43-1	244557.06	253669.51	250572.19	249599.59	1.86	ppb
Calcium	44-1	244196.96	255737.98	250447.22	250127.38	2.31	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	511.25	515.12	508.85	511.74	0.62	ppb
Cobalt	59-2	528.13	514.05	518.34	520.17	1.39	ppb
Copper	63-2	5211.82	5025.17	5036.11	5091.03	2.06	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				111		%
Holmium	165-2				106		%
Indium	115-1				104		%
Indium	115-2				100		%
Iron	56-2	128242.68	126643.32	127439.29	127441.77	0.63	ppb
Iron	57-2	128769.31	125768.12	127727.11	127421.51	1.20	ppb
Iron	54-2	129420.94	126847.36	128286.60	128184.97	1.01	ppb
Krypton	83-1						cps

LB Number :	LB133596	Operator :	Jaswal
Lab Sample ID :	CCV001	Instrumnet Name :	P7
Client Sample ID :	CCV001	Dilution Factor :	1
Date & Time Acquired :	2024-11-22 14:14:21	DataFile Name :	017CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2568.90	2619.96	2651.35	2613.40	1.59	ppb
Lead	207-1	2575.06	2620.00	2640.80	2611.95	1.29	ppb
Lead	208-1	2557.49	2617.54	2638.36	2604.46	1.61	ppb
Lithium	6-1				94		%
Magnesium	24-2	255217.60	248969.40	252641.66	252276.22	1.24	ppb
Manganese	55-2	5089.38	5018.20	5055.76	5054.44	0.70	ppb
Molybdenum	94-1	5047.08	5151.74	5130.95	5109.93	1.08	ppb
Molybdenum	95-1	5045.70	5131.30	5111.71	5096.24	0.88	ppb
Molybdenum	96-1	5042.31	5129.56	5150.43	5107.43	1.12	ppb
Molybdenum	97-1	5030.81	5141.34	5127.84	5100.00	1.18	ppb
Molybdenum	98-1	5045.77	5126.11	5130.25	5100.71	0.93	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	526.17	501.85	511.17	513.06	2.39	ppb
Phosphorus	31-2	10117.44	9961.47	9948.79	10009.23	0.94	ppb
Potassium	39-2	124981.70	123847.85	123597.80	124142.45	0.59	ppb
Rhodium	103-1				99		%
Rhodium	103-2				97		%
Scandium	45-1				105		%
Scandium	45-2				104		%
Selenium	82-1	503.21	510.48	509.75	507.81	0.79	ppb
Selenium	77-2	497.01	506.78	517.70	507.16	2.04	ppb
Selenium	78-2	502.71	499.05	501.75	501.17	0.38	ppb
Silicon	28-1	353.02	364.54	361.21	359.59	1.65	ppb
Silver	107-1	507.57	512.76	511.98	510.77	0.55	ppb
Silver	109-1	506.78	512.70	510.99	510.16	0.60	ppb
Sodium	23-2	255547.57	253683.82	256104.80	255112.06	0.50	ppb
Strontium	86-1	12773.11	13047.23	13060.70	12960.35	1.25	ppb
Strontium	88-1	12636.06	12835.22	12840.75	12770.68	0.91	ppb
Sulfur	34-1	8642.72	8825.43	8694.68	8720.94	1.08	ppb
Terbium	159-1				110		%
Terbium	159-2				106		%
Thallium	203-1	520.04	519.60	529.82	523.15	1.10	ppb
Thallium	205-1	519.19	530.69	533.01	527.63	1.40	ppb
Tin	118-1	504.46	515.18	519.17	512.94	1.48	ppb
Titanium	47-1	4956.24	5184.06	5087.60	5075.96	2.25	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCV001

Instrumnet Name :

P7

Client Sample ID :

CCV001

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:14:21

DataFile Name :

017CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	518.21	535.02	527.36	526.86	1.60	ppb
Vanadium	51-2	513.50	511.53	513.84	512.96	0.24	ppb
Yttrium	89-1				108		%
Yttrium	89-2				105		%
Zinc	66-2	5189.54	5018.80	5048.47	5085.60	1.79	ppb
Zirconium	90-1	500.98	514.99	514.33	510.10	1.55	ppb
Zirconium	91-1	503.91	515.27	515.86	511.68	1.32	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :CCB001Instrumnet Name :P7

Client Sample ID :CCB001Dilution Factor :1

Date & Time Acquired :2024-11-22 14:17:01DataFile Name :018CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.21	0.88	1.02	1.04	15.94	ppb
Antimony	121-1	0.24	0.23	0.28	0.25	10.33	ppb
Arsenic	75-2	0.01	0.03	0.03	0.02	36.35	ppb
Barium	135-1	0.52	0.17	0.11	0.26	83.15	ppb
Barium	137-1	0.54	0.21	0.11	0.29	78.23	ppb
Beryllium	9-1	0.14	0.07	0.01	0.08	86.54	ppb
Bismuth	209-1				108		%
Bismuth	209-2				105		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.13	0.05	0.02	0.07	83.05	ppb
Cadmium	106-1	-0.88	-1.24	-1.43	-1.18		ppb
Cadmium	111-1	0.06	-0.03	-0.07	-0.02		ppb
Calcium	43-1	57.96	17.51	12.61	29.36	84.77	ppb
Calcium	44-1	59.32	24.69	14.36	32.79	71.83	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.03	0.04	0.06	0.04	44.72	ppb
Cobalt	59-2	0.01	0.00	0.00	0.00	213.04	ppb
Copper	63-2	0.14	0.15	0.14	0.14	3.39	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				108		%
Holmium	165-2				104		%
Indium	115-1				107		%
Indium	115-2				103		%
Iron	56-2	3.22	2.88	2.85	2.98	6.92	ppb
Iron	57-2	2.68	1.21	2.71	2.20	39.10	ppb
Iron	54-2	2.78	2.62	3.40	2.93	14.09	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB001 Instrumnet Name : P7
Client Sample ID : CCB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:17:01 DataFile Name : 018CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.55	0.23	0.14	0.31	70.31	ppb
Lead	207-1	0.52	0.23	0.14	0.30	67.53	ppb
Lead	208-1	0.54	0.23	0.14	0.31	69.58	ppb
Lithium	6-1				98		%
Magnesium	24-2	4.72	4.28	3.45	4.15	15.52	ppb
Manganese	55-2	0.11	0.12	0.15	0.13	17.83	ppb
Molybdenum	94-1	1.23	0.60	0.46	0.76	54.02	ppb
Molybdenum	95-1	1.13	0.51	0.35	0.66	62.53	ppb
Molybdenum	96-1	1.16	0.51	0.37	0.68	61.64	ppb
Molybdenum	97-1	1.17	0.51	0.38	0.68	61.74	ppb
Molybdenum	98-1	1.15	0.54	0.35	0.68	60.89	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.10	0.09	0.10	0.10	6.78	ppb
Phosphorus	31-2	-16.48	-14.66	-13.62	-14.92		ppb
Potassium	39-2	17.21	17.94	22.54	19.23	15.02	ppb
Rhodium	103-1				105		%
Rhodium	103-2				105		%
Scandium	45-1				101		%
Scandium	45-2				102		%
Selenium	82-1	0.13	-0.04	-0.05	0.01	725.29	ppb
Selenium	77-2	-0.06	-0.06	0.13	0.00		ppb
Selenium	78-2	-0.12	-0.18	-0.33	-0.21		ppb
Silicon	28-1	-0.13	-0.21	-0.33	-0.22		ppb
Silver	107-1	0.11	0.05	0.04	0.07	59.72	ppb
Silver	109-1	0.12	0.05	0.04	0.07	63.58	ppb
Sodium	23-2	12.84	13.10	15.73	13.89	11.49	ppb
Strontium	86-1	2.39	0.87	0.47	1.25	81.26	ppb
Strontium	88-1	2.45	0.87	0.41	1.24	85.78	ppb
Sulfur	34-1	-517.70	-517.69	-544.92	-526.77		ppb
Terbium	159-1				107		%
Terbium	159-2				106		%
Thallium	203-1	0.15	0.11	0.08	0.11	30.26	ppb
Thallium	205-1	0.15	0.10	0.08	0.11	35.15	ppb
Tin	118-1	0.13	0.07	0.05	0.08	51.60	ppb
Titanium	47-1	1.06	0.43	0.24	0.58	74.23	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCB001

Instrumnet Name :

P7

Client Sample ID :

CCB001

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:17:01

DataFile Name :

018CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.10	0.04	0.02	0.06	75.32	ppb
Vanadium	51-2	0.01	0.00	0.01	0.01	55.27	ppb
Yttrium	89-1				105		%
Yttrium	89-2				104		%
Zinc	66-2	-0.18	0.01	0.53	0.12	300.78	ppb
Zirconium	90-1	0.17	0.10	0.10	0.12	29.84	ppb
Zirconium	91-1	0.16	0.10	0.11	0.12	26.24	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :PB165157BLInstrumnet Name :P7

Client Sample ID :PBW157Dilution Factor :1

Date & Time Acquired :2024-11-22 14:20:18DataFile Name :019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.36	0.41	0.41	0.39	7.24	ppb
Antimony	121-1	0.04	0.05	0.07	0.05	25.89	ppb
Arsenic	75-2	-0.01	0.00	-0.01	-0.01		ppb
Barium	135-1	-0.01	-0.01	0.00	-0.01		ppb
Barium	137-1	-0.01	-0.01	-0.02	-0.01		ppb
Beryllium	9-1	0.00	0.00	0.00	0.00		ppb
Bismuth	209-1				108		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.05	-0.01	0.00	-0.02		ppb
Cadmium	106-1	-0.81	-1.05	-1.04	-0.96		ppb
Cadmium	111-1	-0.04	-0.07	-0.07	-0.06		ppb
Calcium	43-1	1.01	1.48	2.14	1.54	36.72	ppb
Calcium	44-1	5.21	7.08	5.12	5.80	19.09	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.06	0.03	-0.01	0.03	128.24	ppb
Cobalt	59-2	-0.01	-0.01	-0.01	-0.01		ppb
Copper	63-2	0.03	0.03	0.02	0.03	20.54	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				108		%
Holmium	165-2				107		%
Indium	115-1				107		%
Indium	115-2				106		%
Iron	56-2	0.47	0.30	0.80	0.52	49.13	ppb
Iron	57-2	0.68	0.14	0.48	0.44	62.35	ppb
Iron	54-2	1.54	-0.07	-0.03	0.48	191.59	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165157BL Instrumnet Name : P7
Client Sample ID : PBW157 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:20:18 DataFile Name : 019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.05	0.03	0.02	0.03	48.15	ppb
Lead	207-1	0.04	0.02	0.03	0.03	48.05	ppb
Lead	208-1	0.04	0.02	0.02	0.03	31.90	ppb
Lithium	6-1				98		%
Magnesium	24-2	0.32	0.26	0.05	0.21	68.62	ppb
Manganese	55-2	0.17	0.08	0.06	0.10	59.03	ppb
Molybdenum	94-1	0.06	0.05	0.08	0.07	17.16	ppb
Molybdenum	95-1	0.03	0.02	0.03	0.03	31.22	ppb
Molybdenum	96-1	0.04	0.02	0.04	0.03	27.62	ppb
Molybdenum	97-1	0.03	0.02	0.04	0.03	19.57	ppb
Molybdenum	98-1	0.04	0.03	0.03	0.03	11.16	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.09	0.11	0.10	0.10	11.96	ppb
Phosphorus	31-2	-19.79	-16.42	-17.60	-17.94		ppb
Potassium	39-2	12.57	11.31	9.70	11.19	12.89	ppb
Rhodium	103-1				107		%
Rhodium	103-2				108		%
Scandium	45-1				104		%
Scandium	45-2				106		%
Selenium	82-1	0.02	0.17	0.00	0.06	141.26	ppb
Selenium	77-2	0.02	-0.06	-0.06	-0.03		ppb
Selenium	78-2	0.06	-0.62	-0.51	-0.36		ppb
Silicon	28-1	-0.72	-0.70	-0.75	-0.72		ppb
Silver	107-1	0.01	0.01	0.01	0.01	18.88	ppb
Silver	109-1	0.01	0.01	0.01	0.01	20.94	ppb
Sodium	23-2	6.42	5.53	3.82	5.26	25.12	ppb
Strontium	86-1	-0.16	0.31	0.06	0.07	326.63	ppb
Strontium	88-1	0.00	0.04	-0.10	-0.02		ppb
Sulfur	34-1	-405.69	-435.93	-452.88	-431.50		ppb
Terbium	159-1				108		%
Terbium	159-2				108		%
Thallium	203-1	0.05	0.04	0.04	0.05	9.57	ppb
Thallium	205-1	0.05	0.05	0.04	0.05	4.96	ppb
Tin	118-1	0.29	0.28	0.25	0.27	7.30	ppb
Titanium	47-1	0.01	-0.01	-0.03	-0.01		ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

PB165157BL

Instrumnet Name :

P7

Client Sample ID :

PBW157

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:20:18

DataFile Name :

019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	182.01	ppb
Vanadium	51-2	0.00	0.00	0.00	0.00		ppb
Yttrium	89-1				106		%
Yttrium	89-2				107		%
Zinc	66-2	0.42	0.16	0.23	0.27	48.94	ppb
Zirconium	90-1	0.02	0.02	0.02	0.02	21.18	ppb
Zirconium	91-1	0.01	0.02	0.02	0.02	55.96	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165157BS Instrumnet Name : P7
Client Sample ID : LCS157 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:23:31 DataFile Name : 020LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	42.75	42.64	42.34	42.58	0.49	ppb
Antimony	121-1	4.46	4.52	4.59	4.52	1.47	ppb
Arsenic	75-2	2.05	2.31	2.19	2.18	5.98	ppb
Barium	135-1	21.50	21.73	22.27	21.83	1.83	ppb
Barium	137-1	21.96	22.06	22.54	22.19	1.40	ppb
Beryllium	9-1	2.02	2.12	2.06	2.07	2.33	ppb
Bismuth	209-1				108		%
Bismuth	209-2				106		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	2.17	2.42	2.13	2.24	7.20	ppb
Cadmium	106-1	1.88	1.93	0.63	1.48	49.48	ppb
Cadmium	111-1	2.19	2.28	2.27	2.24	2.20	ppb
Calcium	43-1	1085.90	1095.13	1112.20	1097.74	1.22	ppb
Calcium	44-1	1089.24	1110.61	1114.58	1104.81	1.23	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4.60	4.58	4.61	4.60	0.34	ppb
Cobalt	59-2	2.34	2.30	2.27	2.30	1.51	ppb
Copper	63-2	4.80	4.82	4.77	4.80	0.57	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				108		%
Holmium	165-2				107		%
Indium	115-1				107		%
Indium	115-2				107		%
Iron	56-2	473.59	468.96	456.49	466.35	1.90	ppb
Iron	57-2	486.25	483.45	477.32	482.34	0.95	ppb
Iron	54-2	492.40	483.31	478.55	484.75	1.45	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165157BS Instrumnet Name : P7
Client Sample ID : LCS157 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:23:31 DataFile Name : 020LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2.24	2.25	2.20	2.23	1.03	ppb
Lead	207-1	2.20	2.24	2.24	2.23	1.11	ppb
Lead	208-1	2.22	2.25	2.25	2.24	0.97	ppb
Lithium	6-1				100		%
Magnesium	24-2	1076.32	1063.57	1056.94	1065.61	0.92	ppb
Manganese	55-2	2.53	2.42	2.33	2.43	4.09	ppb
Molybdenum	94-1	12.59	13.03	12.99	12.87	1.90	ppb
Molybdenum	95-1	10.47	10.71	10.74	10.64	1.39	ppb
Molybdenum	96-1	10.64	10.87	10.97	10.82	1.57	ppb
Molybdenum	97-1	10.59	11.00	10.92	10.84	2.02	ppb
Molybdenum	98-1	10.47	10.80	11.00	10.76	2.50	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.43	2.40	2.46	2.43	1.18	ppb
Phosphorus	31-2	-18.69	-18.21	-18.03	-18.31		ppb
Potassium	39-2	1103.34	1081.01	1070.00	1084.78	1.57	ppb
Rhodium	103-1				108		%
Rhodium	103-2				108		%
Scandium	45-1				106		%
Scandium	45-2				107		%
Selenium	82-1	10.55	11.23	10.55	10.78	3.66	ppb
Selenium	77-2	11.04	10.64	10.64	10.77	2.15	ppb
Selenium	78-2	10.75	9.73	11.12	10.54	6.82	ppb
Silicon	28-1	5.10	5.34	5.32	5.25	2.51	ppb
Silver	107-1	2.25	2.30	2.36	2.30	2.48	ppb
Silver	109-1	2.24	2.32	2.36	2.31	2.81	ppb
Sodium	23-2	1130.29	1107.03	1090.35	1109.22	1.81	ppb
Strontium	86-1	55.29	56.26	55.89	55.81	0.88	ppb
Strontium	88-1	53.56	55.20	55.17	54.64	1.72	ppb
Sulfur	34-1	-305.16	-342.88	-359.26	-335.77		ppb
Terbium	159-1				109		%
Terbium	159-2				107		%
Thallium	203-1	2.19	2.16	2.19	2.18	0.78	ppb
Thallium	205-1	2.17	2.17	2.20	2.18	0.76	ppb
Tin	118-1	0.01	0.01	0.02	0.01	50.10	ppb
Titanium	47-1	10.56	10.90	10.82	10.76	1.63	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

PB165157BS

Instrumnet Name :

P7

Client Sample ID :

LCS157

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:23:31

DataFile Name :

020LCSE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	2.02	2.03	2.02	2.02	0.15	ppb
Vanadium	51-2	11.17	10.99	10.78	10.98	1.78	ppb
Yttrium	89-1				108		%
Yttrium	89-2				107		%
Zinc	66-2	12.27	11.84	11.34	11.82	3.93	ppb
Zirconium	90-1	2.17	2.25	2.23	2.22	1.69	ppb
Zirconium	91-1	2.20	2.25	2.26	2.24	1.47	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

PB165158BL

Instrumnet Name :

P7

Client Sample ID :

PBW158

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:26:45

DataFile Name :

021CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.34	0.22	0.16	0.24	37.78	ppb
Antimony	121-1	0.01	0.01	0.02	0.02	30.21	ppb
Arsenic	75-2	-0.01	0.00	0.00	0.00		ppb
Barium	135-1	0.00	-0.01	-0.01	-0.01		ppb
Barium	137-1	-0.01	-0.01	0.00	-0.01		ppb
Beryllium	9-1	-0.02	-0.01	0.00	-0.01		ppb
Bismuth	209-1				107		%
Bismuth	209-2				105		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.01	-0.06	-0.03	-0.03		ppb
Cadmium	106-1	-0.78	-0.78	-1.23	-0.93		ppb
Cadmium	111-1	-0.06	-0.05	-0.09	-0.06		ppb
Calcium	43-1	6.86	1.69	6.26	4.94	57.30	ppb
Calcium	44-1	4.48	4.61	3.75	4.28	10.75	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.04	0.06	0.04	0.05	27.60	ppb
Cobalt	59-2	0.00	-0.01	-0.01	-0.01		ppb
Copper	63-2	0.01	0.01	0.02	0.02	37.87	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				108		%
Holmium	165-2				105		%
Indium	115-1				108		%
Indium	115-2				106		%
Iron	56-2	0.20	0.11	0.15	0.15	31.19	ppb
Iron	57-2	0.11	-0.59	-0.02	-0.16		ppb
Iron	54-2	0.41	0.48	0.22	0.37	36.04	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165158BL Instrumnet Name : P7
Client Sample ID : PBW158 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:26:45 DataFile Name : 021CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.02	0.02	0.01	0.02	45.41	ppb
Lead	207-1	0.01	0.01	0.02	0.01	53.08	ppb
Lead	208-1	0.02	0.02	0.02	0.02	7.72	ppb
Lithium	6-1				101		%
Magnesium	24-2	-0.04	0.13	-0.28	-0.06		ppb
Manganese	55-2	0.05	0.10	0.05	0.07	45.49	ppb
Molybdenum	94-1	0.02	0.01	0.03	0.02	51.38	ppb
Molybdenum	95-1	0.00	0.00	0.00	0.00	329.21	ppb
Molybdenum	96-1	0.00	0.00	0.01	0.00	38.59	ppb
Molybdenum	97-1	0.01	0.00	0.00	0.00	514.31	ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	47.06	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.11	0.07	0.09	0.09	22.80	ppb
Phosphorus	31-2	-17.71	-16.93	-19.04	-17.89		ppb
Potassium	39-2	6.56	7.09	8.38	7.34	12.75	ppb
Rhodium	103-1				109		%
Rhodium	103-2				107		%
Scandium	45-1				106		%
Scandium	45-2				107		%
Selenium	82-1	0.04	0.06	-0.29	-0.06		ppb
Selenium	77-2	-0.06	0.03	-0.06	-0.03		ppb
Selenium	78-2	-0.53	-0.22	-0.15	-0.30		ppb
Silicon	28-1	-0.51	-0.69	-0.75	-0.65		ppb
Silver	107-1	0.01	0.01	0.01	0.01	19.42	ppb
Silver	109-1	0.01	0.01	0.01	0.01	8.59	ppb
Sodium	23-2	-1.05	-0.68	-0.01	-0.58		ppb
Strontium	86-1	0.27	-0.33	0.10	0.01	2179.96	ppb
Strontium	88-1	-0.11	-0.04	-0.07	-0.07		ppb
Sulfur	34-1	-222.73	-314.30	-348.63	-295.22		ppb
Terbium	159-1				109		%
Terbium	159-2				106		%
Thallium	203-1	0.02	0.02	0.02	0.02	8.80	ppb
Thallium	205-1	0.03	0.02	0.02	0.02	11.42	ppb
Tin	118-1	-0.01	-0.01	0.00	-0.01		ppb
Titanium	47-1	-0.01	-0.03	-0.02	-0.02		ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

PB165158BL

Instrumnet Name :

P7

Client Sample ID :

PBW158

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:26:45

DataFile Name :

021CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.00	0.00	0.00	0.00	168.94	ppb
Yttrium	89-1				109		%
Yttrium	89-2				106		%
Zinc	66-2	0.31	-0.17	0.24	0.13	205.86	ppb
Zirconium	90-1	0.00	0.01	0.01	0.01	105.21	ppb
Zirconium	91-1	0.00	0.01	0.00	0.00	184.64	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :PB165158BSInstrumnet Name :P7

Client Sample ID :LCS158Dilution Factor :1

Date & Time Acquired :2024-11-22 14:29:59DataFile Name :022CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	44.26	44.95	44.86	44.69	0.83	ppb
Antimony	121-1	4.48	4.57	4.63	4.56	1.68	ppb
Arsenic	75-2	2.30	2.22	2.25	2.26	1.99	ppb
Barium	135-1	22.25	22.06	22.50	22.27	0.99	ppb
Barium	137-1	22.33	22.37	22.84	22.52	1.26	ppb
Beryllium	9-1	2.18	2.17	2.26	2.21	2.22	ppb
Bismuth	209-1				106		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	1.90	2.06	2.21	2.06	7.46	ppb
Cadmium	106-1	1.44	1.05	1.48	1.32	18.08	ppb
Cadmium	111-1	2.24	2.22	2.35	2.27	3.12	ppb
Calcium	43-1	1090.88	1112.44	1111.98	1105.10	1.11	ppb
Calcium	44-1	1100.72	1112.38	1115.64	1109.58	0.71	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4.59	4.61	4.75	4.65	1.92	ppb
Cobalt	59-2	2.26	2.30	2.34	2.30	1.63	ppb
Copper	63-2	4.64	4.91	4.87	4.81	2.97	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				107		%
Holmium	165-2				104		%
Indium	115-1				108		%
Indium	115-2				105		%
Iron	56-2	463.14	465.77	472.80	467.24	1.07	ppb
Iron	57-2	474.60	483.97	489.60	482.72	1.57	ppb
Iron	54-2	482.36	491.55	492.82	488.91	1.17	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165158BS Instrumnet Name : P7
Client Sample ID : LCS158 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:29:59 DataFile Name : 022CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2.21	2.28	2.30	2.26	2.09	ppb
Lead	207-1	2.20	2.24	2.27	2.24	1.45	ppb
Lead	208-1	2.19	2.24	2.26	2.23	1.65	ppb
Lithium	6-1				101		%
Magnesium	24-2	1066.74	1081.08	1085.75	1077.86	0.92	ppb
Manganese	55-2	2.28	2.35	2.47	2.37	4.02	ppb
Molybdenum	94-1	12.74	12.85	13.04	12.88	1.17	ppb
Molybdenum	95-1	10.49	10.85	10.83	10.72	1.87	ppb
Molybdenum	96-1	10.63	10.85	11.01	10.83	1.78	ppb
Molybdenum	97-1	10.55	10.99	10.97	10.83	2.28	ppb
Molybdenum	98-1	10.62	10.93	10.89	10.82	1.55	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.42	2.46	2.46	2.45	1.01	ppb
Phosphorus	31-2	-14.97	-20.11	-15.29	-16.79		ppb
Potassium	39-2	1099.01	1115.52	1112.02	1108.85	0.78	ppb
Rhodium	103-1				108		%
Rhodium	103-2				106		%
Scandium	45-1				106		%
Scandium	45-2				107		%
Selenium	82-1	11.16	10.92	11.16	11.08	1.26	ppb
Selenium	77-2	11.82	10.23	10.27	10.77	8.43	ppb
Selenium	78-2	11.70	10.27	10.04	10.67	8.44	ppb
Silicon	28-1	5.11	5.17	5.49	5.26	3.80	ppb
Silver	107-1	2.30	2.36	2.40	2.35	2.17	ppb
Silver	109-1	2.32	2.39	2.39	2.36	1.72	ppb
Sodium	23-2	1103.86	1115.16	1129.53	1116.18	1.15	ppb
Strontium	86-1	52.97	57.20	57.60	55.93	4.59	ppb
Strontium	88-1	54.52	55.96	56.69	55.72	1.98	ppb
Sulfur	34-1	-116.14	-218.98	-217.02	-184.05		ppb
Terbium	159-1				107		%
Terbium	159-2				105		%
Thallium	203-1	2.13	2.16	2.22	2.17	2.21	ppb
Thallium	205-1	2.13	2.18	2.20	2.17	1.60	ppb
Tin	118-1	0.02	0.05	0.02	0.03	54.84	ppb
Titanium	47-1	10.75	11.00	11.36	11.04	2.80	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

PB165158BS

Instrumnet Name :

P7

Client Sample ID :

LCS158

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:29:59

DataFile Name :

022CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	1.98	2.06	2.06	2.03	2.17	ppb
Vanadium	51-2	11.01	11.08	11.15	11.08	0.63	ppb
Yttrium	89-1				108		%
Yttrium	89-2				107		%
Zinc	66-2	11.84	11.87	12.21	11.97	1.71	ppb
Zirconium	90-1	2.18	2.24	2.23	2.22	1.46	ppb
Zirconium	91-1	2.15	2.20	2.30	2.22	3.52	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4879-22 Instrumnet Name : P7
Client Sample ID : E2A11 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:33:13 DataFile Name : 023SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1922.80	1925.55	1999.24	1949.20	2.22	ppb
Antimony	121-1	0.12	0.12	0.13	0.12	4.70	ppb
Arsenic	75-2	4.06	3.88	3.89	3.94	2.58	ppb
Barium	135-1	54.71	53.64	53.26	53.87	1.40	ppb
Barium	137-1	54.69	54.20	54.45	54.45	0.45	ppb
Beryllium	9-1	0.21	0.20	0.16	0.19	15.06	ppb
Bismuth	209-1				105		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.11	0.25	0.23	0.20	38.46	ppb
Cadmium	106-1	0.78	-0.56	-0.35	-0.04		ppb
Cadmium	111-1	0.22	0.13	0.16	0.17	28.85	ppb
Calcium	43-1	213702.84	215254.91	214982.68	214646.81	0.39	ppb
Calcium	44-1	214805.71	215743.55	212897.36	214482.21	0.68	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5.05	5.23	5.35	5.21	2.89	ppb
Cobalt	59-2	4.35	4.36	4.52	4.41	2.19	ppb
Copper	63-2	8.05	7.98	8.43	8.15	2.98	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				112		%
Holmium	165-2				107		%
Indium	115-1				109		%
Indium	115-2				106		%
Iron	56-2	8736.68	8359.00	8765.46	8620.38	2.63	ppb
Iron	57-2	9770.66	9523.54	10119.64	9804.61	3.05	ppb
Iron	54-2	8653.58	8576.74	8928.27	8719.53	2.12	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4879-22 Instrumnet Name : P7
Client Sample ID : E2A11 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:33:13 DataFile Name : 023SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	8.72	8.71	8.76	8.73	0.27	ppb
Lead	207-1	7.91	7.86	7.85	7.87	0.40	ppb
Lead	208-1	8.20	8.15	8.17	8.18	0.32	ppb
Lithium	6-1				100		%
Magnesium	24-2	72656.01	70136.43	73436.30	72076.24	2.39	ppb
Manganese	55-2	353.16	335.75	349.83	346.25	2.67	ppb
Molybdenum	94-1	1.72	1.71	1.71	1.71	0.35	ppb
Molybdenum	95-1	1.05	1.04	1.01	1.03	1.83	ppb
Molybdenum	96-1	1.15	1.16	1.14	1.15	0.71	ppb
Molybdenum	97-1	1.04	1.02	1.03	1.03	0.72	ppb
Molybdenum	98-1	1.04	1.02	1.04	1.04	1.08	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	8.28	8.38	8.67	8.45	2.41	ppb
Phosphorus	31-2	401.16	403.56	423.34	409.35	2.97	ppb
Potassium	39-2	407.81	401.92	426.68	412.14	3.14	ppb
Rhodium	103-1				108		%
Rhodium	103-2				105		%
Scandium	45-1				110		%
Scandium	45-2				109		%
Selenium	82-1	0.37	0.42	0.17	0.32	42.31	ppb
Selenium	77-2	2.58	3.89	3.62	3.36	20.63	ppb
Selenium	78-2	-0.05	0.05	-0.07	-0.02		ppb
Silicon	28-1	268.95	263.84	266.86	266.55	0.96	ppb
Silver	107-1	0.07	0.06	0.06	0.06	13.56	ppb
Silver	109-1	0.07	0.06	0.05	0.06	16.29	ppb
Sodium	23-2	245.01	246.33	253.20	248.18	1.77	ppb
Strontium	86-1	6510.16	6408.46	6392.30	6436.97	0.99	ppb
Strontium	88-1	6323.35	6358.89	6335.00	6339.08	0.29	ppb
Sulfur	34-1	1073.63	1164.90	1179.70	1139.41	5.04	ppb
Terbium	159-1				112		%
Terbium	159-2				108		%
Thallium	203-1	0.21	0.21	0.26	0.23	13.97	ppb
Thallium	205-1	0.20	0.22	0.25	0.22	10.95	ppb
Tin	118-1	0.32	0.30	0.31	0.31	2.58	ppb
Titanium	47-1	40.18	40.55	39.97	40.23	0.73	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4879-22

Instrumnet Name :

P7

Client Sample ID :

E2A11

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:33:13

DataFile Name :

023SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	1.52	1.35	1.36	1.41	6.75	ppb
Vanadium	51-2	8.30	8.25	8.85	8.46	3.92	ppb
Yttrium	89-1				112		%
Yttrium	89-2				109		%
Zinc	66-2	27.27	26.74	28.41	27.47	3.10	ppb
Zirconium	90-1	0.47	0.47	0.48	0.47	1.09	ppb
Zirconium	91-1	0.48	0.48	0.50	0.49	2.83	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4877-01Instrumnet Name :P7

Client Sample ID :E29Z1Dilution Factor :1

Date & Time Acquired :2024-11-22 14:36:21DataFile Name :024SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	17.97	16.72	17.11	17.27	3.71	ppb
Antimony	121-1	0.08	0.09	0.08	0.08	6.97	ppb
Arsenic	75-2	1.49	1.54	1.51	1.51	1.63	ppb
Barium	135-1	89.41	91.50	89.75	90.22	1.24	ppb
Barium	137-1	90.04	92.19	91.27	91.16	1.18	ppb
Beryllium	9-1	0.01	0.00	-0.01	0.00		ppb
Bismuth	209-1				113		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.01	0.00	0.04	0.01	186.83	ppb
Cadmium	106-1	-0.48	-0.60	-0.54	-0.54		ppb
Cadmium	111-1	-0.02	-0.03	-0.03	-0.03		ppb
Calcium	43-1	78509.48	77698.77	76560.32	77589.52	1.26	ppb
Calcium	44-1	76746.24	76222.54	75738.67	76235.81	0.66	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.10	2.06	2.06	2.07	1.00	ppb
Cobalt	59-2	0.14	0.15	0.15	0.15	3.72	ppb
Copper	63-2	0.82	0.82	0.83	0.82	0.65	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				116		%
Holmium	165-2				109		%
Indium	115-1				115		%
Indium	115-2				111		%
Iron	56-2	55.48	55.03	55.12	55.21	0.43	ppb
Iron	57-2	450.74	460.52	457.33	456.20	1.09	ppb
Iron	54-2	56.02	54.41	55.52	55.32	1.49	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-01 Instrumnet Name : P7
Client Sample ID : E29Z1 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:36:21 DataFile Name : 024SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.21	0.16	0.18	0.18	12.57	ppb
Lead	207-1	0.18	0.16	0.15	0.17	10.60	ppb
Lead	208-1	0.19	0.16	0.17	0.17	9.56	ppb
Lithium	6-1				104		%
Magnesium	24-2	29691.37	29101.66	29820.87	29537.97	1.30	ppb
Manganese	55-2	18.82	18.50	18.50	18.61	0.99	ppb
Molybdenum	94-1	4.54	4.57	4.64	4.58	1.12	ppb
Molybdenum	95-1	5.44	5.38	5.38	5.40	0.66	ppb
Molybdenum	96-1	5.38	5.40	5.40	5.39	0.18	ppb
Molybdenum	97-1	5.48	5.52	5.50	5.50	0.37	ppb
Molybdenum	98-1	5.52	5.52	5.56	5.53	0.35	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.33	2.28	2.34	2.32	1.45	ppb
Phosphorus	31-2	26.29	26.62	32.35	28.42	11.98	ppb
Potassium	39-2	3941.31	3976.07	3968.85	3962.08	0.46	ppb
Rhodium	103-1				113		%
Rhodium	103-2				109		%
Scandium	45-1				114		%
Scandium	45-2				112		%
Selenium	82-1	0.04	-0.11	0.06	0.00		ppb
Selenium	77-2	0.02	0.19	0.19	0.14	73.45	ppb
Selenium	78-2	-0.27	0.20	0.17	0.03	821.31	ppb
Silicon	28-1	578.65	569.48	564.81	570.98	1.23	ppb
Silver	107-1	0.01	0.01	0.01	0.01	6.15	ppb
Silver	109-1	0.01	0.01	0.01	0.01	22.98	ppb
Sodium	23-2	14900.82	14675.29	14877.04	14817.72	0.84	ppb
Strontium	86-1	61944.00	62992.82	62351.34	62429.38	0.85	ppb
Strontium	88-1	61467.25	62518.68	62031.59	62005.84	0.85	ppb
Sulfur	34-1	16397.23	16610.18	16047.41	16351.61	1.74	ppb
Terbium	159-1				118		%
Terbium	159-2				111		%
Thallium	203-1	0.06	0.05	0.05	0.05	6.22	ppb
Thallium	205-1	0.06	0.06	0.05	0.06	12.79	ppb
Tin	118-1	0.18	0.17	0.18	0.17	4.13	ppb
Titanium	47-1	8.84	0.53	0.53	3.30	145.35	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-01

Instrumnet Name :

P7

Client Sample ID :

E29Z1

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:36:21

DataFile Name :

024SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.86	0.86	0.88	0.86	1.41	ppb
Vanadium	51-2	0.20	0.23	0.22	0.22	7.94	ppb
Yttrium	89-1				118		%
Yttrium	89-2				112		%
Zinc	66-2	10.28	10.10	9.79	10.05	2.43	ppb
Zirconium	90-1	0.04	0.04	0.04	0.04	6.09	ppb
Zirconium	91-1	0.03	0.05	0.04	0.04	25.50	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-02

Instrumnet Name :

P7

Client Sample ID :

E29Z3

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:39:34

DataFile Name :

025SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	16.93	17.70	16.60	17.08	3.32	ppb
Antimony	121-1	0.07	0.06	0.07	0.07	4.41	ppb
Arsenic	75-2	1.49	1.52	1.43	1.48	3.14	ppb
Barium	135-1	94.03	91.80	93.18	93.00	1.21	ppb
Barium	137-1	95.16	92.96	94.83	94.32	1.26	ppb
Beryllium	9-1	-0.01	0.00	0.02	0.00	324.35	ppb
Bismuth	209-1				111		%
Bismuth	209-2				106		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.04	0.05	0.00	0.03	91.65	ppb
Cadmium	106-1	-0.16	-1.13	-1.08	-0.79		ppb
Cadmium	111-1	0.01	-0.08	-0.07	-0.05		ppb
Calcium	43-1	79434.50	79387.24	77962.49	78928.08	1.06	ppb
Calcium	44-1	77566.10	77346.00	77061.27	77324.46	0.33	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.18	-0.12	-0.18	-0.16		ppb
Cobalt	59-2	0.11	0.11	0.12	0.11	4.74	ppb
Copper	63-2	0.66	0.71	0.68	0.68	3.75	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				114		%
Holmium	165-2				110		%
Indium	115-1				113		%
Indium	115-2				110		%
Iron	56-2	53.75	56.16	55.49	55.13	2.25	ppb
Iron	57-2	440.55	465.79	460.44	455.59	2.92	ppb
Iron	54-2	52.88	54.52	50.92	52.77	3.42	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-02 Instrumnet Name : P7
Client Sample ID : E29Z3 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:39:34 DataFile Name : 025SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.12	0.11	0.10	0.11	8.18	ppb
Lead	207-1	0.09	0.09	0.10	0.09	7.90	ppb
Lead	208-1	0.11	0.10	0.10	0.10	3.43	ppb
Lithium	6-1				102		%
Magnesium	24-2	29254.78	30169.86	29929.89	29784.84	1.59	ppb
Manganese	55-2	7.63	7.98	7.90	7.84	2.36	ppb
Molybdenum	94-1	4.32	4.38	4.42	4.37	1.12	ppb
Molybdenum	95-1	5.24	5.18	5.12	5.18	1.13	ppb
Molybdenum	96-1	5.04	5.01	5.03	5.03	0.28	ppb
Molybdenum	97-1	5.28	5.16	5.21	5.22	1.20	ppb
Molybdenum	98-1	5.19	5.21	5.19	5.20	0.16	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.90	0.95	0.93	0.93	3.06	ppb
Phosphorus	31-2	20.95	29.48	20.36	23.60	21.62	ppb
Potassium	39-2	3912.25	4096.45	3996.96	4001.89	2.30	ppb
Rhodium	103-1				112		%
Rhodium	103-2				108		%
Scandium	45-1				112		%
Scandium	45-2				111		%
Selenium	82-1	-0.05	0.14	-0.33	-0.08		ppb
Selenium	77-2	0.19	0.02	0.11	0.11	78.43	ppb
Selenium	78-2	-0.07	-0.30	-0.88	-0.42		ppb
Silicon	28-1	586.96	571.25	569.56	575.92	1.67	ppb
Silver	107-1	0.00	0.00	0.00	0.00	27.91	ppb
Silver	109-1	0.00	0.00	0.00	0.00	13.34	ppb
Sodium	23-2	14355.70	15055.14	14998.40	14803.08	2.62	ppb
Strontium	86-1	64154.03	64298.75	64017.41	64156.73	0.22	ppb
Strontium	88-1	64832.29	63565.25	64202.28	64199.94	0.99	ppb
Sulfur	34-1	16408.55	16006.17	15868.52	16094.41	1.74	ppb
Terbium	159-1				114		%
Terbium	159-2				110		%
Thallium	203-1	0.03	0.03	0.02	0.03	14.19	ppb
Thallium	205-1	0.04	0.03	0.03	0.03	10.40	ppb
Tin	118-1	-0.20	-0.20	-0.20	-0.20		ppb
Titanium	47-1	0.94	0.54	0.93	0.80	28.36	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-02

Instrumnet Name :

P7

Client Sample ID :

E29Z3

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:39:34

DataFile Name :

025SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.89	0.87	0.88	0.88	1.14	ppb
Vanadium	51-2	0.22	0.22	0.20	0.21	6.34	ppb
Yttrium	89-1				115		%
Yttrium	89-2				111		%
Zinc	66-2	-3.53	-3.33	-3.58	-3.48		ppb
Zirconium	90-1	0.05	0.04	0.04	0.04	6.33	ppb
Zirconium	91-1	0.04	0.05	0.05	0.05	18.61	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-03 Instrumnet Name : P7
Client Sample ID : E29Z5 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:42:42 DataFile Name : 026SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	25.60	25.21	24.48	25.10	2.28	ppb
Antimony	121-1	0.08	0.07	0.07	0.07	7.02	ppb
Arsenic	75-2	1.53	1.52	1.39	1.48	5.30	ppb
Barium	135-1	91.18	92.53	91.13	91.61	0.87	ppb
Barium	137-1	93.35	92.88	92.66	92.96	0.38	ppb
Beryllium	9-1	-0.01	0.00	0.02	0.00		ppb
Bismuth	209-1				111		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.00	0.09	0.06	0.05	97.96	ppb
Cadmium	106-1	-0.40	-0.49	-1.06	-0.65		ppb
Cadmium	111-1	-0.02	-0.03	-0.08	-0.04		ppb
Calcium	43-1	77327.05	77742.46	77036.17	77368.56	0.46	ppb
Calcium	44-1	76081.97	76378.24	76949.38	76469.86	0.58	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.79	1.76	1.68	1.74	3.18	ppb
Cobalt	59-2	0.15	0.15	0.14	0.14	3.30	ppb
Copper	63-2	0.78	0.77	0.73	0.76	3.04	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				116		%
Holmium	165-2				110		%
Indium	115-1				114		%
Indium	115-2				110		%
Iron	56-2	78.47	77.34	75.66	77.16	1.83	ppb
Iron	57-2	480.07	473.23	467.62	473.64	1.32	ppb
Iron	54-2	78.34	78.63	73.81	76.93	3.51	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-03 Instrumnet Name : P7
Client Sample ID : E29Z5 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:42:42 DataFile Name : 026SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.26	0.24	0.25	0.25	2.99	ppb
Lead	207-1	0.23	0.22	0.24	0.23	3.96	ppb
Lead	208-1	0.24	0.23	0.24	0.24	2.01	ppb
Lithium	6-1				106		%
Magnesium	24-2	29773.69	29060.60	28808.54	29214.28	1.71	ppb
Manganese	55-2	10.47	10.31	9.99	10.26	2.42	ppb
Molybdenum	94-1	4.57	4.64	4.63	4.61	0.76	ppb
Molybdenum	95-1	5.31	5.33	5.37	5.34	0.61	ppb
Molybdenum	96-1	5.23	5.24	5.26	5.24	0.28	ppb
Molybdenum	97-1	5.37	5.58	5.37	5.44	2.26	ppb
Molybdenum	98-1	5.34	5.42	5.46	5.41	1.18	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.37	2.41	2.32	2.37	1.89	ppb
Phosphorus	31-2	38.53	35.71	42.91	39.05	9.29	ppb
Potassium	39-2	4018.66	4051.43	3920.67	3996.92	1.70	ppb
Rhodium	103-1				112		%
Rhodium	103-2				109		%
Scandium	45-1				112		%
Scandium	45-2				111		%
Selenium	82-1	0.24	0.09	0.04	0.12	85.03	ppb
Selenium	77-2	0.11	-0.06	0.02	0.02	402.73	ppb
Selenium	78-2	-0.24	-0.57	-0.66	-0.49		ppb
Silicon	28-1	574.45	576.19	583.03	577.89	0.78	ppb
Silver	107-1	0.00	0.00	0.00	0.00	20.54	ppb
Silver	109-1	0.00	0.00	0.00	0.00	22.06	ppb
Sodium	23-2	14569.86	14212.11	14240.59	14340.85	1.39	ppb
Strontium	86-1	63069.30	63485.96	63987.82	63514.36	0.72	ppb
Strontium	88-1	63275.80	63384.11	63775.09	63478.33	0.41	ppb
Sulfur	34-1	15938.80	15951.84	16032.70	15974.45	0.32	ppb
Terbium	159-1				115		%
Terbium	159-2				111		%
Thallium	203-1	0.02	0.02	0.02	0.02	11.33	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	8.47	ppb
Tin	118-1	-0.15	-0.15	-0.15	-0.15		ppb
Titanium	47-1	0.68	0.78	0.81	0.76	8.59	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-03

Instrumnet Name :

P7

Client Sample ID :

E29Z5

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:42:42

DataFile Name :

026SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.88	0.90	0.88	0.88	1.07	ppb
Vanadium	51-2	0.24	0.22	0.22	0.23	4.92	ppb
Yttrium	89-1				116		%
Yttrium	89-2				112		%
Zinc	66-2	-1.63	-1.99	-2.21	-1.94		ppb
Zirconium	90-1	0.07	0.08	0.07	0.07	10.69	ppb
Zirconium	91-1	0.09	0.07	0.08	0.08	14.80	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-04 Instrumnet Name : P7
Client Sample ID : E29Z7 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:45:52 DataFile Name : 027SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10.26	9.61	9.34	9.74	4.85	ppb
Antimony	121-1	0.06	0.07	0.06	0.06	9.05	ppb
Arsenic	75-2	1.54	1.51	1.56	1.54	1.45	ppb
Barium	135-1	91.46	93.21	92.93	92.54	1.02	ppb
Barium	137-1	92.59	94.31	94.15	93.68	1.02	ppb
Beryllium	9-1	-0.01	-0.02	-0.02	-0.02		ppb
Bismuth	209-1				113		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.03	0.04	0.02	0.03	39.18	ppb
Cadmium	106-1	-0.03	-1.04	-0.63	-0.57		ppb
Cadmium	111-1	0.00	-0.07	-0.04	-0.03		ppb
Calcium	43-1	79124.10	78584.57	79542.46	79083.71	0.61	ppb
Calcium	44-1	77914.69	77539.71	78485.76	77980.05	0.61	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.08	-0.03	-0.08	-0.06		ppb
Cobalt	59-2	0.10	0.10	0.11	0.11	2.95	ppb
Copper	63-2	0.88	0.87	0.89	0.88	1.18	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				116		%
Holmium	165-2				111		%
Indium	115-1				113		%
Indium	115-2				109		%
Iron	56-2	43.21	42.20	41.06	42.16	2.55	ppb
Iron	57-2	430.60	444.28	437.00	437.29	1.56	ppb
Iron	54-2	38.20	40.22	38.98	39.13	2.59	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-04 Instrumnet Name : P7
Client Sample ID : E29Z7 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:45:52 DataFile Name : 027SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.08	0.09	0.09	0.08	3.66	ppb
Lead	207-1	0.09	0.07	0.09	0.09	11.77	ppb
Lead	208-1	0.08	0.08	0.08	0.08	0.16	ppb
Lithium	6-1				109		%
Magnesium	24-2	29526.84	30323.44	29608.92	29819.73	1.47	ppb
Manganese	55-2	5.73	5.81	5.62	5.72	1.67	ppb
Molybdenum	94-1	4.21	4.20	4.21	4.21	0.16	ppb
Molybdenum	95-1	5.00	5.02	5.07	5.03	0.68	ppb
Molybdenum	96-1	4.94	4.98	4.98	4.97	0.50	ppb
Molybdenum	97-1	5.04	5.12	5.05	5.07	0.76	ppb
Molybdenum	98-1	5.08	5.19	5.17	5.15	1.10	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.81	0.85	0.86	0.84	2.81	ppb
Phosphorus	31-2	21.73	18.93	18.99	19.88	8.04	ppb
Potassium	39-2	3854.98	3837.87	3802.68	3831.84	0.70	ppb
Rhodium	103-1				113		%
Rhodium	103-2				108		%
Scandium	45-1				111		%
Scandium	45-2				112		%
Selenium	82-1	0.34	0.17	0.20	0.24	38.01	ppb
Selenium	77-2	0.11	0.02	0.11	0.08	62.06	ppb
Selenium	78-2	-0.08	-1.10	-0.52	-0.57		ppb
Silicon	28-1	578.67	582.50	592.67	584.61	1.24	ppb
Silver	107-1	0.00	0.00	0.00	0.00	41.82	ppb
Silver	109-1	0.00	0.00	0.00	0.00	7.40	ppb
Sodium	23-2	14554.62	14781.49	14703.31	14679.80	0.79	ppb
Strontium	86-1	64704.91	65565.07	64848.46	65039.48	0.71	ppb
Strontium	88-1	65224.92	65414.61	65614.58	65418.04	0.30	ppb
Sulfur	34-1	15846.89	16194.06	17034.15	16358.37	3.73	ppb
Terbium	159-1				115		%
Terbium	159-2				112		%
Thallium	203-1	0.02	0.02	0.02	0.02	13.82	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	4.08	ppb
Tin	118-1	-0.12	-0.14	-0.14	-0.13		ppb
Titanium	47-1	0.34	0.31	0.96	0.54	68.14	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-04

Instrumnet Name :

P7

Client Sample ID :

E29Z7

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:45:52

DataFile Name :

027SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.88	0.90	0.92	0.90	2.19	ppb
Vanadium	51-2	0.18	0.22	0.19	0.19	9.51	ppb
Yttrium	89-1				116		%
Yttrium	89-2				110		%
Zinc	66-2	-2.67	-2.67	-2.54	-2.63		ppb
Zirconium	90-1	0.02	0.02	0.03	0.02	27.76	ppb
Zirconium	91-1	0.02	0.02	0.02	0.02	4.21	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4877-05Instrumnet Name :P7

Client Sample ID :E2A13Dilution Factor :1

Date & Time Acquired :2024-11-22 14:49:00DataFile Name :028SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	14.69	15.12	18.85	16.22	14.10	ppb
Antimony	121-1	0.06	0.06	0.07	0.07	9.72	ppb
Arsenic	75-2	1.38	1.48	1.30	1.39	6.60	ppb
Barium	135-1	89.02	89.91	91.24	90.06	1.24	ppb
Barium	137-1	90.24	90.80	91.92	90.98	0.94	ppb
Beryllium	9-1	-0.01	-0.02	-0.01	-0.02		ppb
Bismuth	209-1				114		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.00	0.05	-0.03	0.01	586.92	ppb
Cadmium	106-1	-0.19	-0.50	-1.23	-0.64		ppb
Cadmium	111-1	-0.01	-0.04	-0.09	-0.04		ppb
Calcium	43-1	77273.68	77026.83	77211.85	77170.78	0.17	ppb
Calcium	44-1	75764.46	75782.60	75683.26	75743.44	0.07	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.95	0.91	0.92	0.92	2.43	ppb
Cobalt	59-2	0.13	0.13	0.14	0.13	3.59	ppb
Copper	63-2	0.76	0.77	0.73	0.75	2.49	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				117		%
Holmium	165-2				112		%
Indium	115-1				113		%
Indium	115-2				109		%
Iron	56-2	51.73	50.78	50.51	51.01	1.26	ppb
Iron	57-2	442.51	447.10	450.59	446.73	0.91	ppb
Iron	54-2	48.21	47.86	49.02	48.36	1.23	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-05 Instrumnet Name : P7
Client Sample ID : E2A13 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:49:00 DataFile Name : 028SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.19	0.17	0.19	0.18	6.01	ppb
Lead	207-1	0.18	0.16	0.17	0.17	3.26	ppb
Lead	208-1	0.18	0.18	0.18	0.18	1.48	ppb
Lithium	6-1				107		%
Magnesium	24-2	29777.26	29569.92	29863.46	29736.88	0.51	ppb
Manganese	55-2	9.02	8.85	9.04	8.97	1.16	ppb
Molybdenum	94-1	4.04	3.97	4.01	4.00	0.93	ppb
Molybdenum	95-1	4.85	4.89	4.90	4.88	0.56	ppb
Molybdenum	96-1	4.77	4.71	4.71	4.73	0.76	ppb
Molybdenum	97-1	4.83	4.90	4.91	4.88	0.92	ppb
Molybdenum	98-1	4.84	4.80	4.88	4.84	0.84	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.97	1.84	1.86	1.89	3.74	ppb
Phosphorus	31-2	24.16	28.13	28.07	26.79	8.50	ppb
Potassium	39-2	3921.89	3941.18	3975.76	3946.28	0.69	ppb
Rhodium	103-1				111		%
Rhodium	103-2				108		%
Scandium	45-1				111		%
Scandium	45-2				109		%
Selenium	82-1	0.24	-0.04	0.15	0.12	119.31	ppb
Selenium	77-2	0.11	0.02	0.02	0.05	96.35	ppb
Selenium	78-2	-0.93	-0.11	-0.30	-0.45		ppb
Silicon	28-1	581.64	575.24	579.00	578.63	0.56	ppb
Silver	107-1	0.00	0.00	0.00	0.00	38.87	ppb
Silver	109-1	0.00	0.00	0.00	0.00	49.88	ppb
Sodium	23-2	14477.37	14470.36	14442.73	14463.49	0.13	ppb
Strontium	86-1	63440.04	64051.47	62988.73	63493.41	0.84	ppb
Strontium	88-1	62981.81	63467.16	62853.30	63100.76	0.51	ppb
Sulfur	34-1	16596.63	16015.45	16521.68	16377.92	1.93	ppb
Terbium	159-1				116		%
Terbium	159-2				112		%
Thallium	203-1	0.02	0.01	0.01	0.01	19.30	ppb
Thallium	205-1	0.02	0.01	0.01	0.01	12.36	ppb
Tin	118-1	-0.18	-0.20	-0.19	-0.19		ppb
Titanium	47-1	0.40	0.48	0.42	0.43	9.56	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-05

Instrumnet Name :

P7

Client Sample ID :

E2A13

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:49:00

DataFile Name :

028SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.85	0.86	0.87	0.86	1.16	ppb
Vanadium	51-2	0.21	0.20	0.21	0.21	3.02	ppb
Yttrium	89-1				115		%
Yttrium	89-2				110		%
Zinc	66-2	-2.83	-2.89	-2.96	-2.89		ppb
Zirconium	90-1	0.03	0.03	0.04	0.03	13.94	ppb
Zirconium	91-1	0.04	0.02	0.03	0.03	30.83	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4877-06Instrumnet Name :P7

Client Sample ID :E2A19Dilution Factor :1

Date & Time Acquired :2024-11-22 14:52:10DataFile Name :029SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	17.85	17.20	17.02	17.36	2.52	ppb
Antimony	121-1	0.04	0.04	0.04	0.04	7.64	ppb
Arsenic	75-2	-0.02	-0.01	-0.01	-0.01		ppb
Barium	135-1	0.12	0.11	0.18	0.14	30.89	ppb
Barium	137-1	0.13	0.13	0.18	0.15	18.82	ppb
Beryllium	9-1	-0.03	-0.03	-0.01	-0.03		ppb
Bismuth	209-1				116		%
Bismuth	209-2				113		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.04	-0.01	0.01	-0.01		ppb
Cadmium	106-1	-0.16	-0.44	-0.47	-0.36		ppb
Cadmium	111-1	-0.02	-0.04	-0.03	-0.03		ppb
Calcium	43-1	29.05	24.96	26.69	26.90	7.63	ppb
Calcium	44-1	23.66	30.08	24.90	26.21	12.99	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.23	-0.24	-0.25	-0.24		ppb
Cobalt	59-2	-0.01	-0.01	-0.02	-0.02		ppb
Copper	63-2	0.39	0.38	0.39	0.39	1.98	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				115		%
Holmium	165-2				112		%
Indium	115-1				114		%
Indium	115-2				111		%
Iron	56-2	-0.07	-0.21	-0.13	-0.14		ppb
Iron	57-2	-0.36	-1.36	-0.33	-0.68		ppb
Iron	54-2	-2.38	-2.62	-2.46	-2.49		ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-06 Instrumnet Name : P7
Client Sample ID : E2A19 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:52:10 DataFile Name : 029SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.02	-0.02	-0.02	-0.02		ppb
Lead	207-1	-0.02	-0.01	-0.02	-0.02		ppb
Lead	208-1	-0.02	-0.02	-0.02	-0.02		ppb
Lithium	6-1				109		%
Magnesium	24-2	3.98	3.65	3.79	3.81	4.32	ppb
Manganese	55-2	-1.01	-1.08	-1.02	-1.03		ppb
Molybdenum	94-1	-0.02	-0.01	-0.02	-0.02		ppb
Molybdenum	95-1	-0.01	-0.01	-0.01	-0.01		ppb
Molybdenum	96-1	-0.01	-0.01	-0.02	-0.01		ppb
Molybdenum	97-1	-0.02	-0.02	-0.01	-0.02		ppb
Molybdenum	98-1	-0.01	-0.01	-0.01	-0.01		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.00	0.01	0.02	0.01	113.06	ppb
Phosphorus	31-2	-19.01	-21.86	-18.34	-19.74		ppb
Potassium	39-2	5.33	3.64	6.97	5.31	31.32	ppb
Rhodium	103-1				112		%
Rhodium	103-2				112		%
Scandium	45-1				109		%
Scandium	45-2				109		%
Selenium	82-1	-0.03	-0.06	-0.29	-0.13		ppb
Selenium	77-2	0.11	0.02	0.02	0.05	95.91	ppb
Selenium	78-2	-0.69	-1.37	-0.48	-0.85		ppb
Silicon	28-1	-1.41	-0.81	-1.09	-1.10		ppb
Silver	107-1	0.00	0.00	0.00	0.00	70.95	ppb
Silver	109-1	0.00	0.00	0.01	0.00	50.38	ppb
Sodium	23-2	33.76	31.48	33.57	32.94	3.83	ppb
Strontium	86-1	9.57	6.90	6.40	7.62	22.32	ppb
Strontium	88-1	9.71	7.55	6.61	7.96	20.00	ppb
Sulfur	34-1	33.42	255.08	148.55	145.69	76.09	ppb
Terbium	159-1				114		%
Terbium	159-2				111		%
Thallium	203-1	0.01	0.00	0.01	0.01	56.55	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	4.66	ppb
Tin	118-1	-0.23	-0.19	-0.22	-0.21		ppb
Titanium	47-1	-0.03	-0.02	-0.02	-0.02		ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-06

Instrumnet Name :

P7

Client Sample ID :

E2A19

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:52:10

DataFile Name :

029SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.01	0.01	0.00	0.00	93.88	ppb
Yttrium	89-1				112		%
Yttrium	89-2				111		%
Zinc	66-2	-1.50	-1.51	-1.28	-1.43		ppb
Zirconium	90-1	-0.01	-0.01	-0.01	-0.01		ppb
Zirconium	91-1	-0.01	-0.01	-0.01	-0.01		ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-07

Instrumnet Name :

P7

Client Sample ID :

E2A22

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:55:24

DataFile Name :

030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.81	0.92	0.79	0.84	8.40	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	27.92	ppb
Arsenic	75-2	-0.01	-0.01	0.00	-0.01		ppb
Barium	135-1	-0.03	-0.03	-0.02	-0.03		ppb
Barium	137-1	-0.03	-0.03	-0.03	-0.03		ppb
Beryllium	9-1	0.00	-0.01	-0.01	-0.01		ppb
Bismuth	209-1				115		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.03	-0.04	0.02	-0.02		ppb
Cadmium	106-1	-0.76	-0.61	-0.89	-0.75		ppb
Cadmium	111-1	-0.06	-0.05	-0.07	-0.06		ppb
Calcium	43-1	-39.32	-38.93	-38.19	-38.81		ppb
Calcium	44-1	-39.40	-38.95	-38.19	-38.85		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.17	-0.19	-0.17	-0.18		ppb
Cobalt	59-2	-0.02	-0.02	-0.02	-0.02		ppb
Copper	63-2	0.01	0.00	0.00	0.00	176.41	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				114		%
Holmium	165-2				110		%
Indium	115-1				112		%
Indium	115-2				108		%
Iron	56-2	-0.67	-0.63	-0.61	-0.64		ppb
Iron	57-2	-1.44	-1.85	-1.40	-1.57		ppb
Iron	54-2	-2.64	-3.10	-2.58	-2.78		ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-07 Instrumnet Name : P7
Client Sample ID : E2A22 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:55:24 DataFile Name : 030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.01	-0.02	-0.01	-0.01		ppb
Lead	207-1	-0.01	-0.01	-0.01	-0.01		ppb
Lead	208-1	-0.01	-0.01	-0.01	-0.01		ppb
Lithium	6-1				110		%
Magnesium	24-2	-0.69	-0.63	-0.55	-0.62		ppb
Manganese	55-2	-0.19	-0.16	-0.15	-0.17		ppb
Molybdenum	94-1	-0.03	-0.02	-0.03	-0.03		ppb
Molybdenum	95-1	-0.02	-0.02	-0.01	-0.02		ppb
Molybdenum	96-1	-0.02	-0.02	-0.01	-0.02		ppb
Molybdenum	97-1	-0.01	-0.02	-0.02	-0.02		ppb
Molybdenum	98-1	-0.01	-0.01	-0.01	-0.01		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.01	0.00	-0.01	-0.01		ppb
Phosphorus	31-2	-17.19	-17.03	-16.19	-16.80		ppb
Potassium	39-2	5.03	4.68	4.72	4.81	4.03	ppb
Rhodium	103-1				112		%
Rhodium	103-2				109		%
Scandium	45-1				108		%
Scandium	45-2				107		%
Selenium	82-1	0.09	-0.09	-0.31	-0.11		ppb
Selenium	77-2	-0.06	0.11	-0.06	-0.01		ppb
Selenium	78-2	-0.61	-1.04	-0.94	-0.86		ppb
Silicon	28-1	-1.93	-1.74	-1.62	-1.76		ppb
Silver	107-1	0.00	0.00	0.00	0.00	92.25	ppb
Silver	109-1	0.00	0.00	0.00	0.00	76.34	ppb
Sodium	23-2	2.67	2.09	2.36	2.37	12.18	ppb
Strontium	86-1	-0.08	-0.33	-0.30	-0.24		ppb
Strontium	88-1	-0.34	-0.40	-0.41	-0.38		ppb
Sulfur	34-1	72.01	143.48	163.14	126.21	38.00	ppb
Terbium	159-1				114		%
Terbium	159-2				110		%
Thallium	203-1	0.01	0.00	0.00	0.00	109.83	ppb
Thallium	205-1	0.00	0.01	0.00	0.00	52.40	ppb
Tin	118-1	-0.18	-0.18	-0.19	-0.18		ppb
Titanium	47-1	-0.03	-0.01	-0.02	-0.02		ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-07

Instrumnet Name :

P7

Client Sample ID :

E2A22

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:55:24

DataFile Name :

030SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.00	0.00	0.00	0.00	84.28	ppb
Yttrium	89-1				111		%
Yttrium	89-2				107		%
Zinc	66-2	-3.29	-3.24	-3.19	-3.24		ppb
Zirconium	90-1	-0.01	-0.01	-0.01	-0.01		ppb
Zirconium	91-1	-0.01	-0.02	-0.02	-0.02		ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4877-08Instrumnet Name :P7

Client Sample ID :E2A23Dilution Factor :1

Date & Time Acquired :2024-11-22 14:58:40DataFile Name :031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2.37	1.64	1.86	1.95	19.11	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	107.06	ppb
Arsenic	75-2	-0.01	-0.01	-0.02	-0.01		ppb
Barium	135-1	0.00	0.00	-0.02	-0.01		ppb
Barium	137-1	0.00	-0.01	-0.01	0.00		ppb
Beryllium	9-1	-0.01	-0.01	-0.02	-0.01		ppb
Bismuth	209-1				116		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.05	-0.04	-0.01	-0.03		ppb
Cadmium	106-1	-0.47	-0.88	-0.78	-0.71		ppb
Cadmium	111-1	-0.04	-0.06	-0.06	-0.05		ppb
Calcium	43-1	-39.84	-40.72	-42.19	-40.92		ppb
Calcium	44-1	-43.16	-43.84	-42.40	-43.13		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.19	-0.20	-0.21	-0.20		ppb
Cobalt	59-2	-0.01	-0.02	-0.02	-0.02		ppb
Copper	63-2	0.05	0.03	0.05	0.04	23.73	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				113		%
Holmium	165-2				109		%
Indium	115-1				112		%
Indium	115-2				108		%
Iron	56-2	-0.47	-0.12	-0.38	-0.32		ppb
Iron	57-2	-0.92	-1.34	-1.25	-1.17		ppb
Iron	54-2	-2.95	-2.97	-3.00	-2.97		ppb
Krypton	83-1						cps

LB Number : LB133596

Operator : Jaswal

Lab Sample ID : P4877-08

Instrumnet Name : P7

Client Sample ID : E2A23

Dilution Factor : 1

Date & Time Acquired : 2024-11-22 14:58:40

DataFile Name : 031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.01	-0.01	-0.01	-0.01		ppb
Lead	207-1	-0.01	-0.02	-0.03	-0.02		ppb
Lead	208-1	-0.01	-0.01	-0.02	-0.01		ppb
Lithium	6-1				109		%
Magnesium	24-2	-0.88	-0.76	-0.62	-0.75		ppb
Manganese	55-2	-0.94	-0.98	-0.92	-0.95		ppb
Molybdenum	94-1	-0.03	-0.02	-0.02	-0.02		ppb
Molybdenum	95-1	-0.02	-0.02	-0.02	-0.02		ppb
Molybdenum	96-1	-0.01	-0.02	-0.01	-0.02		ppb
Molybdenum	97-1	-0.01	-0.02	-0.02	-0.02		ppb
Molybdenum	98-1	-0.01	-0.01	-0.01	-0.01		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.03	-0.03	-0.05	-0.04		ppb
Phosphorus	31-2	-22.82	-19.86	-17.15	-19.94		ppb
Potassium	39-2	3.25	4.31	5.29	4.28	23.77	ppb
Rhodium	103-1				111		%
Rhodium	103-2				109		%
Scandium	45-1				108		%
Scandium	45-2				106		%
Selenium	82-1	0.01	-0.20	-0.15	-0.11		ppb
Selenium	77-2	0.11	-0.06	-0.06	-0.01		ppb
Selenium	78-2	-0.69	-1.05	-1.04	-0.93		ppb
Silicon	28-1	-2.05	-1.96	-1.79	-1.93		ppb
Silver	107-1	0.00	0.00	0.00	0.00	63.37	ppb
Silver	109-1	0.00	0.00	0.00	0.00	105.40	ppb
Sodium	23-2	12.17	12.25	12.95	12.46	3.44	ppb
Strontium	86-1	1.70	1.55	1.28	1.51	14.02	ppb
Strontium	88-1	1.73	1.36	1.54	1.54	12.09	ppb
Sulfur	34-1	84.99	123.14	161.71	123.28	31.12	ppb
Terbium	159-1				114		%
Terbium	159-2				110		%
Thallium	203-1	0.01	0.00	0.00	0.00	102.02	ppb
Thallium	205-1	0.00	0.00	0.00	0.00	59.16	ppb
Tin	118-1	-0.14	-0.13	-0.13	-0.13		ppb
Titanium	47-1	-0.03	-0.02	-0.03	-0.03		ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-08

Instrumnet Name :

P7

Client Sample ID :

E2A23

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:58:40

DataFile Name :

031SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.01	0.01	0.01	0.01	36.80	ppb
Yttrium	89-1				111		%
Yttrium	89-2				108		%
Zinc	66-2	-4.26	-4.32	-4.21	-4.26		ppb
Zirconium	90-1	-0.01	-0.01	-0.01	-0.01		ppb
Zirconium	91-1	-0.01	-0.02	-0.01	-0.01		ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-09 Instrumnet Name : P7
Client Sample ID : E29Z9 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:01:54 DataFile Name : 032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	14.33	13.95	15.48	14.59	5.47	ppb
Antimony	121-1	0.08	0.08	0.08	0.08	1.28	ppb
Arsenic	75-2	1.42	1.44	1.50	1.45	2.92	ppb
Barium	135-1	95.75	95.02	95.28	95.35	0.39	ppb
Barium	137-1	97.53	97.17	95.74	96.81	0.98	ppb
Beryllium	9-1	-0.04	-0.02	-0.04	-0.03		ppb
Bismuth	209-1				111		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.00	0.01	-0.05	-0.01		ppb
Cadmium	106-1	-0.26	-0.04	-0.72	-0.34		ppb
Cadmium	111-1	-0.02	0.00	-0.04	-0.02		ppb
Calcium	43-1	80112.62	79795.95	80662.00	80190.19	0.55	ppb
Calcium	44-1	79499.29	80102.73	79845.06	79815.69	0.38	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.08	-0.05	-0.09	-0.07		ppb
Cobalt	59-2	0.11	0.12	0.11	0.11	4.72	ppb
Copper	63-2	0.69	0.67	0.68	0.68	1.46	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				113		%
Holmium	165-2				108		%
Indium	115-1				109		%
Indium	115-2				106		%
Iron	56-2	55.63	56.17	55.98	55.92	0.49	ppb
Iron	57-2	455.24	461.89	466.26	461.13	1.20	ppb
Iron	54-2	53.93	54.74	53.47	54.04	1.19	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-09 Instrumnet Name : P7
Client Sample ID : E29Z9 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:01:54 DataFile Name : 032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2.52	2.51	2.48	2.50	0.82	ppb
Lead	207-1	2.30	2.32	2.25	2.29	1.70	ppb
Lead	208-1	2.39	2.38	2.35	2.38	0.76	ppb
Lithium	6-1				109		%
Magnesium	24-2	30479.86	30572.43	30267.32	30439.87	0.51	ppb
Manganese	55-2	5.36	5.32	5.26	5.32	0.95	ppb
Molybdenum	94-1	4.48	4.28	4.39	4.38	2.27	ppb
Molybdenum	95-1	5.26	5.16	5.18	5.20	1.03	ppb
Molybdenum	96-1	5.20	5.04	5.05	5.10	1.79	ppb
Molybdenum	97-1	5.35	5.26	5.23	5.28	1.15	ppb
Molybdenum	98-1	5.32	5.29	5.24	5.28	0.76	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.90	0.91	0.88	0.89	1.89	ppb
Phosphorus	31-2	15.73	16.69	15.25	15.89	4.61	ppb
Potassium	39-2	3860.47	3874.78	3873.35	3869.53	0.20	ppb
Rhodium	103-1				107		%
Rhodium	103-2				106		%
Scandium	45-1				107		%
Scandium	45-2				108		%
Selenium	82-1	-0.22	0.00	-0.06	-0.09		ppb
Selenium	77-2	0.02	0.02	0.02	0.02	1.20	ppb
Selenium	78-2	-1.00	-1.03	-1.14	-1.06		ppb
Silicon	28-1	599.30	612.08	610.66	607.35	1.15	ppb
Silver	107-1	0.00	0.00	0.00	0.00	112.66	ppb
Silver	109-1	0.00	0.00	0.00	0.00	77.47	ppb
Sodium	23-2	15093.64	15175.79	14873.70	15047.71	1.04	ppb
Strontium	86-1	67625.31	66347.06	67285.53	67085.97	0.99	ppb
Strontium	88-1	67738.50	66565.05	67007.31	67103.62	0.88	ppb
Sulfur	34-1	17232.99	17491.08	17200.62	17308.23	0.92	ppb
Terbium	159-1				112		%
Terbium	159-2				110		%
Thallium	203-1	0.02	0.01	0.01	0.01	21.44	ppb
Thallium	205-1	0.02	0.01	0.01	0.01	17.65	ppb
Tin	118-1	0.17	0.17	0.19	0.17	6.36	ppb
Titanium	47-1	1.76	6.56	0.56	2.96	107.25	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-09

Instrumnet Name :

P7

Client Sample ID :

E29Z9

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:01:54

DataFile Name :

032SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.94	0.94	0.91	0.93	1.70	ppb
Vanadium	51-2	0.21	0.21	0.23	0.22	5.26	ppb
Yttrium	89-1				111		%
Yttrium	89-2				108		%
Zinc	66-2	-2.95	-3.21	-3.11	-3.09		ppb
Zirconium	90-1	0.03	0.03	0.02	0.03	18.56	ppb
Zirconium	91-1	0.02	0.03	0.03	0.03	9.06	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10 Instrumnet Name : P7
Client Sample ID : E2A01 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:05:04 DataFile Name : 033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	11.40	10.94	10.33	10.89	4.94	ppb
Antimony	121-1	0.07	0.07	0.07	0.07	4.31	ppb
Arsenic	75-2	1.48	1.38	1.47	1.44	3.68	ppb
Barium	135-1	90.51	94.07	94.86	93.15	2.49	ppb
Barium	137-1	91.18	94.50	96.21	93.96	2.72	ppb
Beryllium	9-1	-0.02	-0.03	-0.03	-0.03		ppb
Bismuth	209-1				115		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.02	0.03	-0.04	-0.01		ppb
Cadmium	106-1	-0.20	-0.17	-0.62	-0.33		ppb
Cadmium	111-1	-0.01	-0.01	-0.04	-0.02		ppb
Calcium	43-1	74783.78	76892.47	77298.73	76324.99	1.77	ppb
Calcium	44-1	72758.50	75600.75	76831.44	75063.56	2.78	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.11	-0.07	-0.10	-0.10		ppb
Cobalt	59-2	0.10	0.11	0.11	0.11	3.68	ppb
Copper	63-2	0.72	0.76	0.72	0.73	3.35	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				117		%
Holmium	165-2				110		%
Indium	115-1				114		%
Indium	115-2				109		%
Iron	56-2	49.90	49.85	48.59	49.44	1.50	ppb
Iron	57-2	435.46	452.56	442.43	443.48	1.94	ppb
Iron	54-2	47.11	48.05	47.00	47.38	1.22	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10 Instrumnet Name : P7
Client Sample ID : E2A01 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:05:04 DataFile Name : 033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.06	0.09	0.07	0.07	16.15	ppb
Lead	207-1	0.06	0.07	0.06	0.06	10.56	ppb
Lead	208-1	0.06	0.07	0.07	0.07	11.01	ppb
Lithium	6-1				110		%
Magnesium	24-2	28874.93	29667.18	28900.23	29147.45	1.54	ppb
Manganese	55-2	5.84	6.17	5.95	5.98	2.80	ppb
Molybdenum	94-1	4.16	4.39	4.42	4.32	3.37	ppb
Molybdenum	95-1	4.88	5.11	5.26	5.08	3.81	ppb
Molybdenum	96-1	4.80	5.07	5.10	4.99	3.25	ppb
Molybdenum	97-1	4.95	5.25	5.24	5.15	3.29	ppb
Molybdenum	98-1	4.98	5.28	5.30	5.18	3.46	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.82	0.86	0.85	0.84	2.23	ppb
Phosphorus	31-2	14.56	17.45	12.58	14.86	16.49	ppb
Potassium	39-2	3853.90	3932.79	3867.12	3884.61	1.09	ppb
Rhodium	103-1				111		%
Rhodium	103-2				107		%
Scandium	45-1				112		%
Scandium	45-2				110		%
Selenium	82-1	0.06	0.16	-0.17	0.02	1036.03	ppb
Selenium	77-2	0.11	-0.06	0.02	0.02	370.91	ppb
Selenium	78-2	-0.69	-0.18	-0.11	-0.33		ppb
Silicon	28-1	562.71	588.47	595.23	582.14	2.95	ppb
Silver	107-1	0.00	0.00	0.00	0.00	49.08	ppb
Silver	109-1	0.00	0.00	0.00	0.00	136.80	ppb
Sodium	23-2	14649.22	15298.73	14724.58	14890.84	2.39	ppb
Strontium	86-1	64495.10	67673.55	68139.81	66769.49	2.97	ppb
Strontium	88-1	64484.24	67628.87	68042.31	66718.47	2.92	ppb
Sulfur	34-1	17518.24	18664.34	18685.29	18289.29	3.65	ppb
Terbium	159-1				117		%
Terbium	159-2				110		%
Thallium	203-1	0.01	0.01	0.01	0.01	7.48	ppb
Thallium	205-1	0.02	0.01	0.01	0.01	11.58	ppb
Tin	118-1	-0.17	-0.16	-0.14	-0.16		ppb
Titanium	47-1	0.49	0.42	0.40	0.44	10.47	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-10

Instrumnet Name :

P7

Client Sample ID :

E2A01

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:05:04

DataFile Name :

033SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.85	0.89	0.90	0.88	3.16	ppb
Vanadium	51-2	0.20	0.23	0.19	0.21	8.50	ppb
Yttrium	89-1				115		%
Yttrium	89-2				109		%
Zinc	66-2	-3.00	-2.90	-2.97	-2.96		ppb
Zirconium	90-1	0.04	0.04	0.04	0.04	8.07	ppb
Zirconium	91-1	0.10	0.05	0.05	0.07	46.67	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-11RE

Instrumnet Name :

P7

Client Sample ID :

E2A01D

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:08:12

DataFile Name :

034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	12.56	19.90	13.19	15.22	26.75	ppb
Antimony	121-1	0.07	0.06	0.07	0.07	6.72	ppb
Arsenic	75-2	1.46	1.47	1.30	1.41	6.85	ppb
Barium	135-1	94.15	94.17	95.45	94.59	0.79	ppb
Barium	137-1	95.27	95.51	96.53	95.77	0.70	ppb
Beryllium	9-1	0.00	-0.03	-0.01	-0.01		ppb
Bismuth	209-1				111		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.01	-0.03	0.01	-0.01		ppb
Cadmium	106-1	-1.03	-1.27	-0.75	-1.02		ppb
Cadmium	111-1	-0.07	-0.09	-0.06	-0.07		ppb
Calcium	43-1	77220.26	78069.42	77688.78	77659.49	0.55	ppb
Calcium	44-1	77549.40	76610.89	76428.57	76862.95	0.78	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.20	0.34	0.31	0.28	25.66	ppb
Cobalt	59-2	0.12	0.11	0.12	0.12	1.77	ppb
Copper	63-2	0.63	0.65	0.64	0.64	1.47	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				113		%
Holmium	165-2				109		%
Indium	115-1				110		%
Indium	115-2				107		%
Iron	56-2	59.88	57.81	58.80	58.83	1.76	ppb
Iron	57-2	452.92	446.52	462.15	453.86	1.73	ppb
Iron	54-2	56.01	59.87	58.17	58.02	3.34	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-11RE Instrumnet Name : P7
Client Sample ID : E2A01D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:08:12 DataFile Name : 034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.07	0.05	0.06	0.06	18.92	ppb
Lead	207-1	0.05	0.05	0.05	0.05	2.04	ppb
Lead	208-1	0.05	0.05	0.05	0.05	2.85	ppb
Lithium	6-1				106		%
Magnesium	24-2	29327.73	29234.89	29347.36	29303.32	0.21	ppb
Manganese	55-2	74.13	73.30	74.84	74.09	1.04	ppb
Molybdenum	94-1	4.39	4.39	4.29	4.36	1.34	ppb
Molybdenum	95-1	5.27	5.36	5.23	5.29	1.23	ppb
Molybdenum	96-1	5.23	5.20	5.14	5.19	0.86	ppb
Molybdenum	97-1	5.27	5.43	5.23	5.31	1.94	ppb
Molybdenum	98-1	5.38	5.37	5.24	5.33	1.43	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.27	1.23	1.23	1.25	1.87	ppb
Phosphorus	31-2	21.82	16.50	16.10	18.14	17.60	ppb
Potassium	39-2	3965.07	3957.45	4014.68	3979.07	0.78	ppb
Rhodium	103-1				108		%
Rhodium	103-2				106		%
Scandium	45-1				108		%
Scandium	45-2				107		%
Selenium	82-1	0.00	0.05	-0.13	-0.03		ppb
Selenium	77-2	0.12	-0.06	0.02	0.02	362.46	ppb
Selenium	78-2	-0.54	-0.53	-0.52	-0.53		ppb
Silicon	28-1	591.22	591.25	591.32	591.26	0.01	ppb
Silver	107-1	0.00	0.00	0.00	0.00	22.42	ppb
Silver	109-1	0.00	0.00	0.00	0.00	25.24	ppb
Sodium	23-2	16468.32	16263.08	16727.25	16486.22	1.41	ppb
Strontium	86-1	67073.69	68102.44	67263.91	67480.01	0.81	ppb
Strontium	88-1	67334.01	68715.55	67269.45	67773.00	1.21	ppb
Sulfur	34-1	17592.93	17200.38	17239.20	17344.17	1.25	ppb
Terbium	159-1				112		%
Terbium	159-2				109		%
Thallium	203-1	0.01	0.01	0.01	0.01	4.84	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	16.45	ppb
Tin	118-1	-0.12	-0.11	-0.11	-0.12		ppb
Titanium	47-1	0.49	0.39	0.50	0.46	13.31	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-11RE

Instrumnet Name :

P7

Client Sample ID :

E2A01D

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:08:12

DataFile Name :

034SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.90	0.90	0.90	0.90	0.25	ppb
Vanadium	51-2	0.20	0.20	0.22	0.21	3.85	ppb
Yttrium	89-1				111		%
Yttrium	89-2				108		%
Zinc	66-2	-3.06	-2.93	-3.00	-3.00		ppb
Zirconium	90-1	0.04	0.04	0.03	0.04	7.70	ppb
Zirconium	91-1	0.04	0.04	0.04	0.04	7.75	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10LX5 Instrumnet Name : P7
Client Sample ID : E2A01L Dilution Factor : 5
Date & Time Acquired : 2024-11-22 15:11:22 DataFile Name : 035SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2.77	2.18	2.86	2.60	14.21	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	4.06	ppb
Arsenic	75-2	0.32	0.24	0.21	0.26	22.69	ppb
Barium	135-1	17.89	18.45	18.27	18.20	1.59	ppb
Barium	137-1	17.79	18.68	18.59	18.35	2.69	ppb
Beryllium	9-1	-0.02	-0.02	-0.02	-0.02		ppb
Bismuth	209-1				110		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.01	-0.04	0.02	0.00		ppb
Cadmium	106-1	-0.79	-1.02	-1.33	-1.05		ppb
Cadmium	111-1	-0.06	-0.08	-0.10	-0.08		ppb
Calcium	43-1	14697.52	15522.25	16029.35	15416.37	4.36	ppb
Calcium	44-1	14027.96	14841.53	14896.79	14588.76	3.33	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.02	0.04	0.01	0.01	312.02	ppb
Cobalt	59-2	0.01	0.01	0.01	0.01	22.57	ppb
Copper	63-2	0.12	0.12	0.13	0.13	4.86	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				109		%
Holmium	165-2				106		%
Indium	115-1				107		%
Indium	115-2				105		%
Iron	56-2	9.42	9.63	9.69	9.58	1.48	ppb
Iron	57-2	81.97	87.30	87.60	85.63	3.70	ppb
Iron	54-2	8.32	9.17	9.49	9.00	6.76	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10LX5 Instrumnet Name : P7
Client Sample ID : E2A01L Dilution Factor : 5
Date & Time Acquired : 2024-11-22 15:11:22 DataFile Name : 035SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.00	0.01	0.01	0.01	74.93	ppb
Lead	207-1	0.01	0.01	0.01	0.01	33.25	ppb
Lead	208-1	0.01	0.01	0.01	0.01	23.05	ppb
Lithium	6-1				103		%
Magnesium	24-2	5715.29	5728.52	5804.31	5749.37	0.84	ppb
Manganese	55-2	1.21	1.33	1.31	1.28	4.90	ppb
Molybdenum	94-1	0.79	0.86	0.84	0.83	4.50	ppb
Molybdenum	95-1	0.95	0.99	1.01	0.98	2.64	ppb
Molybdenum	96-1	0.94	1.00	0.97	0.97	3.24	ppb
Molybdenum	97-1	0.95	1.00	0.98	0.98	2.48	ppb
Molybdenum	98-1	0.96	1.01	1.03	1.00	3.84	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.19	0.17	0.16	0.17	9.32	ppb
Phosphorus	31-2	-9.92	-15.96	-14.84	-13.57		ppb
Potassium	39-2	783.02	794.39	799.25	792.22	1.05	ppb
Rhodium	103-1				106		%
Rhodium	103-2				106		%
Scandium	45-1				104		%
Scandium	45-2				104		%
Selenium	82-1	-0.02	0.05	-0.10	-0.03		ppb
Selenium	77-2	0.03	0.03	-0.06	0.00		ppb
Selenium	78-2	-0.95	-0.85	-0.56	-0.79		ppb
Silicon	28-1	108.52	113.37	118.35	113.41	4.33	ppb
Silver	107-1	0.00	0.00	0.00	0.00	106.53	ppb
Silver	109-1	0.00	0.00	0.00	0.00	59.23	ppb
Sodium	23-2	2893.92	2964.64	2979.59	2946.05	1.55	ppb
Strontium	86-1	12497.50	13267.99	13301.83	13022.44	3.49	ppb
Strontium	88-1	12559.96	13282.94	13154.66	12999.19	2.97	ppb
Sulfur	34-1	3075.06	3300.08	3422.73	3265.96	5.40	ppb
Terbium	159-1				109		%
Terbium	159-2				108		%
Thallium	203-1	0.00	0.00	0.00	0.00		ppb
Thallium	205-1	0.00	0.00	0.00	0.00	76.80	ppb
Tin	118-1	-0.04	-0.03	0.03	-0.02		ppb
Titanium	47-1	0.05	0.07	0.08	0.07	23.42	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10LX5 Instrumnet Name : P7
Client Sample ID : E2A01L Dilution Factor : 5
Date & Time Acquired : 2024-11-22 15:11:22 DataFile Name : 035SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.16	0.17	0.17	0.17	3.62	ppb
Vanadium	51-2	0.04	0.03	0.04	0.04	9.41	ppb
Yttrium	89-1				106		%
Yttrium	89-2				106		%
Zinc	66-2	-0.62	-0.51	-0.54	-0.56		ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	29.14	ppb
Zirconium	91-1	0.01	0.00	0.02	0.01	77.75	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10RE Instrumnet Name : P7
Client Sample ID : E2A01 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:14:32 DataFile Name : 036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	15.44	13.84	14.09	14.46	5.93	ppb
Antimony	121-1	0.07	0.07	0.07	0.07	5.25	ppb
Arsenic	75-2	1.53	1.46	1.41	1.47	4.23	ppb
Barium	135-1	95.65	96.27	95.26	95.73	0.53	ppb
Barium	137-1	97.02	97.81	96.62	97.15	0.62	ppb
Beryllium	9-1	-0.02	-0.01	-0.02	-0.02		ppb
Bismuth	209-1				115		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.02	-0.02	-0.02	-0.01		ppb
Cadmium	106-1	-0.50	-1.49	-1.64	-1.21		ppb
Cadmium	111-1	-0.04	-0.10	-0.12	-0.09		ppb
Calcium	43-1	79369.62	78727.12	79686.80	79261.18	0.62	ppb
Calcium	44-1	78809.33	77714.88	78366.77	78297.00	0.70	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.16	-0.16	-0.13	-0.15		ppb
Cobalt	59-2	0.11	0.11	0.11	0.11	1.95	ppb
Copper	63-2	0.67	0.65	0.65	0.66	1.54	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				118		%
Holmium	165-2				112		%
Indium	115-1				113		%
Indium	115-2				109		%
Iron	56-2	53.12	53.32	54.27	53.57	1.15	ppb
Iron	57-2	449.76	461.42	467.74	459.64	1.98	ppb
Iron	54-2	52.85	52.65	53.75	53.08	1.11	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10RE Instrumnet Name : P7
Client Sample ID : E2A01 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:14:32 DataFile Name : 036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.09	0.09	0.09	0.09	5.19	ppb
Lead	207-1	0.09	0.09	0.08	0.08	8.14	ppb
Lead	208-1	0.09	0.09	0.08	0.08	5.33	ppb
Lithium	6-1				110		%
Magnesium	24-2	30300.09	29977.45	30571.18	30282.91	0.98	ppb
Manganese	55-2	6.25	6.38	6.29	6.31	1.09	ppb
Molybdenum	94-1	4.52	4.52	4.53	4.53	0.12	ppb
Molybdenum	95-1	5.33	5.31	5.24	5.29	0.81	ppb
Molybdenum	96-1	5.27	5.22	5.22	5.24	0.54	ppb
Molybdenum	97-1	5.39	5.42	5.35	5.38	0.67	ppb
Molybdenum	98-1	5.36	5.43	5.36	5.38	0.68	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.81	0.89	0.91	0.87	6.03	ppb
Phosphorus	31-2	17.81	16.56	15.54	16.64	6.83	ppb
Potassium	39-2	4021.37	4059.35	4089.11	4056.61	0.84	ppb
Rhodium	103-1				111		%
Rhodium	103-2				109		%
Scandium	45-1				110		%
Scandium	45-2				108		%
Selenium	82-1	0.33	0.00	0.10	0.14	120.79	ppb
Selenium	77-2	0.20	0.11	0.11	0.14	36.06	ppb
Selenium	78-2	-0.08	-0.78	-0.83	-0.57		ppb
Silicon	28-1	613.94	596.89	602.92	604.59	1.43	ppb
Silver	107-1	0.00	0.00	0.00	0.00	39.12	ppb
Silver	109-1	0.00	0.00	0.00	0.00	76.66	ppb
Sodium	23-2	15366.65	15469.02	15528.24	15454.64	0.53	ppb
Strontium	86-1	68882.82	69274.76	68694.11	68950.57	0.43	ppb
Strontium	88-1	68895.15	68762.77	68633.81	68763.91	0.19	ppb
Sulfur	34-1	17899.29	17159.90	17741.63	17600.27	2.21	ppb
Terbium	159-1				117		%
Terbium	159-2				113		%
Thallium	203-1	0.01	0.01	0.01	0.01	26.28	ppb
Thallium	205-1	0.02	0.01	0.01	0.01	18.28	ppb
Tin	118-1	-0.19	-0.18	-0.19	-0.19		ppb
Titanium	47-1	0.43	0.37	0.42	0.40	7.12	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-10RE

Instrumnet Name :

P7

Client Sample ID :

E2A01

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:14:32

DataFile Name :

036SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.91	0.92	0.92	0.92	0.66	ppb
Vanadium	51-2	0.22	0.23	0.21	0.22	5.18	ppb
Yttrium	89-1				114		%
Yttrium	89-2				111		%
Zinc	66-2	-1.14	-1.01	-0.98	-1.04		ppb
Zirconium	90-1	0.31	0.03	0.04	0.13	123.79	ppb
Zirconium	91-1	0.03	0.04	0.04	0.04	12.38	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4877-12Instrumnet Name :P7

Client Sample ID :E2A01SDilution Factor :1

Date & Time Acquired :2024-11-22 15:21:00DataFile Name :037SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1874.28	1846.74	1858.47	1859.83	0.74	ppb
Antimony	121-1	101.23	104.10	105.32	103.55	2.03	ppb
Arsenic	75-2	41.98	41.68	42.48	42.05	0.96	ppb
Barium	135-1	2045.12	2093.18	2096.27	2078.19	1.38	ppb
Barium	137-1	2038.58	2082.91	2116.71	2079.40	1.88	ppb
Beryllium	9-1	48.69	49.08	48.94	48.90	0.40	ppb
Bismuth	209-1				117		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	44.90	45.28	46.15	45.44	1.40	ppb
Cadmium	106-1	41.90	43.05	43.15	42.70	1.64	ppb
Cadmium	111-1	50.67	51.98	52.74	51.79	2.02	ppb
Calcium	43-1	76321.24	78708.55	77474.28	77501.36	1.54	ppb
Calcium	44-1	75698.83	78128.94	77565.62	77131.13	1.65	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	209.75	203.98	207.24	206.99	1.40	ppb
Cobalt	59-2	518.72	518.41	512.50	516.54	0.68	ppb
Copper	63-2	247.90	242.41	248.03	246.11	1.30	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				118		%
Holmium	165-2				112		%
Indium	115-1				114		%
Indium	115-2				107		%
Iron	56-2	1106.99	1096.97	1103.75	1102.57	0.46	ppb
Iron	57-2	1534.14	1507.70	1523.60	1521.81	0.87	ppb
Iron	54-2	1291.85	1267.57	1280.98	1280.13	0.95	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-12 Instrumnet Name : P7
Client Sample ID : E2A01S Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:21:00 DataFile Name : 037SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	19.76	20.17	20.62	20.18	2.13	ppb
Lead	207-1	19.57	19.80	20.22	19.87	1.67	ppb
Lead	208-1	19.68	20.00	20.33	20.00	1.63	ppb
Lithium	6-1				110		%
Magnesium	24-2	30139.42	29200.38	29826.60	29722.13	1.61	ppb
Manganese	55-2	506.90	504.86	505.62	505.79	0.20	ppb
Molybdenum	94-1	4.39	4.59	4.43	4.47	2.30	ppb
Molybdenum	95-1	5.29	5.40	5.30	5.33	1.11	ppb
Molybdenum	96-1	5.09	5.25	5.28	5.21	1.95	ppb
Molybdenum	97-1	5.21	5.37	5.33	5.30	1.49	ppb
Molybdenum	98-1	5.27	5.41	5.39	5.36	1.42	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	526.88	510.58	520.13	519.20	1.58	ppb
Phosphorus	31-2	14.96	16.97	15.60	15.84	6.46	ppb
Potassium	39-2	3904.02	3898.42	3920.26	3907.57	0.29	ppb
Rhodium	103-1				111		%
Rhodium	103-2				107		%
Scandium	45-1				110		%
Scandium	45-2				108		%
Selenium	82-1	103.85	106.66	106.63	105.71	1.53	ppb
Selenium	77-2	108.77	104.43	99.45	104.21	4.48	ppb
Selenium	78-2	104.89	101.35	105.50	103.91	2.16	ppb
Silicon	28-1	585.63	607.91	602.58	598.71	1.94	ppb
Silver	107-1	50.25	51.04	51.88	51.06	1.60	ppb
Silver	109-1	50.04	51.31	51.77	51.04	1.76	ppb
Sodium	23-2	15535.31	14818.32	15136.66	15163.43	2.37	ppb
Strontium	86-1	67243.59	68309.29	68187.34	67913.41	0.86	ppb
Strontium	88-1	67242.39	68244.85	68361.25	67949.50	0.91	ppb
Sulfur	34-1	17214.29	17377.91	17660.86	17417.69	1.30	ppb
Terbium	159-1				117		%
Terbium	159-2				112		%
Thallium	203-1	48.54	49.58	50.49	49.54	1.97	ppb
Thallium	205-1	48.02	49.59	50.75	49.45	2.77	ppb
Tin	118-1	-0.08	-0.07	-0.07	-0.07		ppb
Titanium	47-1	0.45	0.45	0.62	0.50	19.61	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-12

Instrumnet Name :

P7

Client Sample ID :

E2A01S

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:21:00

DataFile Name :

037SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.89	0.91	0.93	0.91	2.32	ppb
Vanadium	51-2	505.28	505.35	502.34	504.32	0.34	ppb
Yttrium	89-1				114		%
Yttrium	89-2				109		%
Zinc	66-2	529.29	520.78	524.79	524.95	0.81	ppb
Zirconium	90-1	0.04	0.04	0.04	0.04	10.59	ppb
Zirconium	91-1	0.05	0.06	0.05	0.05	2.77	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-11 Instrumnet Name : P7
Client Sample ID : E2A01D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:24:50 DataFile Name : 038SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	11.45	11.71	14.35	12.50	12.83	ppb
Antimony	121-1	0.07	0.07	0.08	0.07	4.69	ppb
Arsenic	75-2	1.54	1.63	1.42	1.53	6.96	ppb
Barium	135-1	94.62	94.64	95.22	94.83	0.36	ppb
Barium	137-1	95.79	95.92	96.32	96.01	0.29	ppb
Beryllium	9-1	-0.01	-0.02	-0.02	-0.02		ppb
Bismuth	209-1				115		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.00	0.00	0.04	0.01	157.57	ppb
Cadmium	106-1	-1.17	-1.91	-1.54	-1.54		ppb
Cadmium	111-1	-0.08	-0.14	-0.11	-0.11		ppb
Calcium	43-1	77391.61	77069.42	77220.28	77227.10	0.21	ppb
Calcium	44-1	76989.79	77148.32	76995.93	77044.68	0.12	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.08	-0.11	-0.07	-0.09		ppb
Cobalt	59-2	0.11	0.10	0.11	0.11	2.81	ppb
Copper	63-2	0.76	0.78	0.77	0.77	1.25	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				116		%
Holmium	165-2				112		%
Indium	115-1				111		%
Indium	115-2				108		%
Iron	56-2	50.11	50.60	49.45	50.05	1.16	ppb
Iron	57-2	430.71	448.74	452.72	444.06	2.64	ppb
Iron	54-2	46.78	47.94	50.18	48.30	3.58	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-11 Instrumnet Name : P7
Client Sample ID : E2A01D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:24:50 DataFile Name : 038SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.07	0.08	0.07	0.07	5.93	ppb
Lead	207-1	0.07	0.06	0.07	0.07	5.11	ppb
Lead	208-1	0.07	0.07	0.07	0.07	1.08	ppb
Lithium	6-1				109		%
Magnesium	24-2	29342.00	29805.86	29609.12	29585.66	0.79	ppb
Manganese	55-2	6.07	6.08	6.05	6.07	0.26	ppb
Molybdenum	94-1	4.39	4.52	4.46	4.46	1.51	ppb
Molybdenum	95-1	5.28	5.23	5.26	5.26	0.52	ppb
Molybdenum	96-1	5.19	5.16	5.11	5.15	0.80	ppb
Molybdenum	97-1	5.22	5.27	5.38	5.29	1.52	ppb
Molybdenum	98-1	5.23	5.28	5.31	5.27	0.75	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.87	0.98	0.86	0.90	7.46	ppb
Phosphorus	31-2	16.01	11.91	14.28	14.07	14.64	ppb
Potassium	39-2	3888.84	3952.57	3892.27	3911.23	0.92	ppb
Rhodium	103-1				109		%
Rhodium	103-2				108		%
Scandium	45-1				109		%
Scandium	45-2				108		%
Selenium	82-1	0.51	0.14	0.14	0.26	80.38	ppb
Selenium	77-2	0.02	0.38	0.11	0.17	107.71	ppb
Selenium	78-2	-0.93	-0.97	-0.85	-0.91		ppb
Silicon	28-1	594.77	601.36	598.96	598.36	0.56	ppb
Silver	107-1	0.01	0.01	0.01	0.01	7.36	ppb
Silver	109-1	0.01	0.01	0.01	0.01	20.94	ppb
Sodium	23-2	15266.47	15174.27	15313.90	15251.55	0.47	ppb
Strontium	86-1	68055.89	68127.25	68601.79	68261.64	0.43	ppb
Strontium	88-1	68655.78	68229.45	68356.61	68413.95	0.32	ppb
Sulfur	34-1	19102.15	18515.09	19057.06	18891.43	1.73	ppb
Terbium	159-1				115		%
Terbium	159-2				111		%
Thallium	203-1	0.02	0.02	0.02	0.02	22.01	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	13.76	ppb
Tin	118-1	-0.17	-0.17	-0.15	-0.16		ppb
Titanium	47-1	0.38	0.44	0.43	0.42	7.55	ppb

LB Number :
Lab Sample ID :
Client Sample ID :
Date & Time Acquired :

LB133596
P4877-11
E2A01D
2024-11-22 15:24:50

Operator :
Instrumnet Name :
Dilution Factor :
DataFile Name :

Jaswal
P7
1
038SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.89	0.90	0.89	0.89	0.54	ppb
Vanadium	51-2	0.23	0.20	0.20	0.21	6.68	ppb
Yttrium	89-1				112		%
Yttrium	89-2				109		%
Zinc	66-2	-2.78	-2.78	-2.83	-2.79		ppb
Zirconium	90-1	0.04	0.04	0.05	0.04	21.54	ppb
Zirconium	91-1	0.03	0.03	0.04	0.03	27.31	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-13 Instrumnet Name : P7
Client Sample ID : E2A03 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:27:59 DataFile Name : 039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	15.63	12.31	13.49	13.81	12.17	ppb
Antimony	121-1	0.07	0.08	0.08	0.08	3.96	ppb
Arsenic	75-2	1.78	1.40	1.45	1.54	13.28	ppb
Barium	135-1	89.85	91.04	91.60	90.83	0.98	ppb
Barium	137-1	91.47	93.24	92.33	92.35	0.96	ppb
Beryllium	9-1	-0.02	-0.01	-0.02	-0.02		ppb
Bismuth	209-1				115		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.03	0.03	-0.02	-0.01		ppb
Cadmium	106-1	-0.63	-0.29	-1.13	-0.68		ppb
Cadmium	111-1	-0.04	-0.02	-0.08	-0.04		ppb
Calcium	43-1	74083.30	76378.03	76987.72	75816.35	2.02	ppb
Calcium	44-1	73985.21	75250.69	75213.32	74816.40	0.96	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.25	1.09	1.05	1.13	9.74	ppb
Cobalt	59-2	0.12	0.11	0.12	0.12	5.55	ppb
Copper	63-2	0.76	0.65	0.65	0.68	9.76	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				117		%
Holmium	165-2				105		%
Indium	115-1				112		%
Indium	115-2				102		%
Iron	56-2	67.95	58.73	57.50	61.39	9.30	ppb
Iron	57-2	514.62	460.45	451.91	475.66	7.15	ppb
Iron	54-2	66.63	57.68	56.80	60.37	9.01	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-13 Instrumnet Name : P7
Client Sample ID : E2A03 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:27:59 DataFile Name : 039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.09	0.08	0.09	0.09	7.85	ppb
Lead	207-1	0.08	0.07	0.07	0.08	5.29	ppb
Lead	208-1	0.08	0.08	0.08	0.08	3.78	ppb
Lithium	6-1				111		%
Magnesium	24-2	34187.63	29657.51	29059.25	30968.13	9.06	ppb
Manganese	55-2	6.14	5.07	4.93	5.38	12.25	ppb
Molybdenum	94-1	4.46	4.28	4.32	4.35	2.13	ppb
Molybdenum	95-1	5.07	5.16	5.13	5.12	0.93	ppb
Molybdenum	96-1	4.92	5.17	5.09	5.06	2.54	ppb
Molybdenum	97-1	5.12	5.28	5.15	5.18	1.69	ppb
Molybdenum	98-1	5.16	5.25	5.17	5.19	0.93	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.14	1.03	1.02	1.06	6.06	ppb
Phosphorus	31-2	30.37	22.04	22.00	24.80	19.43	ppb
Potassium	39-2	4580.07	3925.90	3911.96	4139.31	9.22	ppb
Rhodium	103-1				110		%
Rhodium	103-2				102		%
Scandium	45-1				110		%
Scandium	45-2				101		%
Selenium	82-1	0.29	0.14	0.04	0.16	79.67	ppb
Selenium	77-2	-0.06	-0.06	0.11	-0.01		ppb
Selenium	78-2	-0.56	-0.91	-0.54	-0.67		ppb
Silicon	28-1	589.73	586.35	594.77	590.28	0.72	ppb
Silver	107-1	0.00	0.00	0.00	0.00	15.04	ppb
Silver	109-1	0.00	0.00	0.00	0.00	24.93	ppb
Sodium	23-2	17612.73	15216.33	15055.28	15961.45	8.97	ppb
Strontium	86-1	66722.88	68477.45	67346.63	67515.66	1.32	ppb
Strontium	88-1	66167.86	68243.25	67762.63	67391.25	1.61	ppb
Sulfur	34-1	16737.38	16797.68	17359.75	16964.93	2.02	ppb
Terbium	159-1				116		%
Terbium	159-2				106		%
Thallium	203-1	0.02	0.01	0.01	0.01	25.55	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	11.71	ppb
Tin	118-1	-0.22	-0.23	-0.21	-0.22		ppb
Titanium	47-1	0.44	0.42	0.59	0.48	19.02	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-13

Instrumnet Name :

P7

Client Sample ID :

E2A03

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:27:59

DataFile Name :

039SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.84	0.87	0.87	0.86	2.12	ppb
Vanadium	51-2	0.24	0.22	0.22	0.23	6.66	ppb
Yttrium	89-1				113		%
Yttrium	89-2				103		%
Zinc	66-2	-3.01	-3.37	-3.71	-3.36		ppb
Zirconium	90-1	0.03	0.03	0.03	0.03	4.12	ppb
Zirconium	91-1	0.03	0.02	0.02	0.02	25.38	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4877-14Instrumnet Name :P7

Client Sample ID :E2A05Dilution Factor :1

Date & Time Acquired :2024-11-22 15:31:09DataFile Name :040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	13.27	12.74	12.43	12.81	3.32	ppb
Antimony	121-1	0.08	0.08	0.08	0.08	3.00	ppb
Arsenic	75-2	1.46	1.40	1.49	1.45	3.21	ppb
Barium	135-1	97.46	96.43	96.60	96.83	0.57	ppb
Barium	137-1	98.80	98.25	97.65	98.24	0.59	ppb
Beryllium	9-1	-0.03	-0.04	-0.01	-0.03		ppb
Bismuth	209-1				113		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.01	0.03	0.02	0.02	47.68	ppb
Cadmium	106-1	0.14	-0.81	-0.88	-0.52		ppb
Cadmium	111-1	0.01	-0.06	-0.07	-0.04		ppb
Calcium	43-1	80928.73	80508.81	79290.16	80242.57	1.06	ppb
Calcium	44-1	80342.50	78460.28	78414.91	79072.56	1.39	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.03	-0.04	-0.04	-0.04		ppb
Cobalt	59-2	0.11	0.11	0.11	0.11	3.40	ppb
Copper	63-2	0.65	0.68	0.69	0.68	2.87	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				115		%
Holmium	165-2				111		%
Indium	115-1				110		%
Indium	115-2				107		%
Iron	56-2	52.80	54.00	54.22	53.67	1.43	ppb
Iron	57-2	454.76	462.23	469.24	462.08	1.57	ppb
Iron	54-2	50.19	54.16	53.06	52.47	3.90	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-14 Instrumnet Name : P7
Client Sample ID : E2A05 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:31:09 DataFile Name : 040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.05	0.05	0.06	0.05	10.32	ppb
Lead	207-1	0.06	0.04	0.05	0.05	16.72	ppb
Lead	208-1	0.05	0.05	0.05	0.05	2.83	ppb
Lithium	6-1				110		%
Magnesium	24-2	30058.52	30221.00	30427.59	30235.70	0.61	ppb
Manganese	55-2	4.09	4.22	4.30	4.20	2.54	ppb
Molybdenum	94-1	4.63	4.71	4.61	4.65	1.17	ppb
Molybdenum	95-1	5.47	5.57	5.55	5.53	0.89	ppb
Molybdenum	96-1	5.47	5.49	5.31	5.42	1.76	ppb
Molybdenum	97-1	5.56	5.43	5.58	5.52	1.54	ppb
Molybdenum	98-1	5.60	5.60	5.54	5.58	0.61	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.93	0.88	0.89	0.90	3.36	ppb
Phosphorus	31-2	14.13	15.15	15.96	15.08	6.11	ppb
Potassium	39-2	4071.16	4137.33	4164.57	4124.35	1.16	ppb
Rhodium	103-1				108		%
Rhodium	103-2				107		%
Scandium	45-1				109		%
Scandium	45-2				108		%
Selenium	82-1	0.25	-0.10	-0.21	-0.02		ppb
Selenium	77-2	0.02	0.20	0.11	0.11	78.47	ppb
Selenium	78-2	-0.88	-0.60	-0.37	-0.62		ppb
Silicon	28-1	637.29	617.91	623.21	626.14	1.60	ppb
Silver	107-1	0.00	0.00	0.00	0.00	27.67	ppb
Silver	109-1	0.00	0.00	0.00	0.00	31.92	ppb
Sodium	23-2	15702.30	15937.41	15992.11	15877.27	0.97	ppb
Strontium	86-1	72289.49	72236.95	71939.75	72155.40	0.26	ppb
Strontium	88-1	72840.01	72154.74	71783.50	72259.42	0.74	ppb
Sulfur	34-1	18388.14	17608.84	17557.31	17851.43	2.61	ppb
Terbium	159-1				114		%
Terbium	159-2				111		%
Thallium	203-1	0.01	0.01	0.01	0.01	20.17	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	10.55	ppb
Tin	118-1	0.13	-0.01	0.03	0.05	148.30	ppb
Titanium	47-1	0.42	0.53	0.39	0.45	16.06	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-14

Instrumnet Name :

P7

Client Sample ID :

E2A05

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:31:09

DataFile Name :

040SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.91	0.91	0.92	0.91	0.31	ppb
Vanadium	51-2	0.20	0.28	0.21	0.23	17.52	ppb
Yttrium	89-1				111		%
Yttrium	89-2				108		%
Zinc	66-2	-3.43	-3.53	-3.28	-3.41		ppb
Zirconium	90-1	0.03	0.03	0.03	0.03	3.23	ppb
Zirconium	91-1	0.02	0.18	0.05	0.08	100.43	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-15 Instrumnet Name : P7
Client Sample ID : E2A07 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:34:18 DataFile Name : 041SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	15.29	13.28	13.73	14.10	7.48	ppb
Antimony	121-1	0.07	0.07	0.08	0.07	11.21	ppb
Arsenic	75-2	1.50	1.51	1.56	1.52	2.03	ppb
Barium	135-1	95.38	96.27	100.67	97.44	2.90	ppb
Barium	137-1	96.91	98.02	102.48	99.14	2.97	ppb
Beryllium	9-1	-0.03	-0.03	-0.01	-0.02		ppb
Bismuth	209-1				111		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.03	0.05	-0.04	-0.01		ppb
Cadmium	106-1	0.09	-0.74	-0.76	-0.47		ppb
Cadmium	111-1	0.01	-0.06	-0.05	-0.03		ppb
Calcium	43-1	77638.25	79961.52	82908.06	80169.27	3.29	ppb
Calcium	44-1	77673.57	77973.23	81945.03	79197.28	3.01	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.75	0.73	0.75	0.74	1.59	ppb
Cobalt	59-2	0.11	0.13	0.11	0.12	7.56	ppb
Copper	63-2	0.67	0.68	0.69	0.68	2.01	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				114		%
Holmium	165-2				109		%
Indium	115-1				109		%
Indium	115-2				106		%
Iron	56-2	52.93	52.67	52.70	52.77	0.27	ppb
Iron	57-2	454.33	453.17	458.69	455.39	0.64	ppb
Iron	54-2	51.33	51.26	50.93	51.17	0.41	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-15 Instrumnet Name : P7
Client Sample ID : E2A07 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:34:18 DataFile Name : 041SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.38	0.38	0.37	0.38	1.06	ppb
Lead	207-1	0.34	0.33	0.36	0.35	4.39	ppb
Lead	208-1	0.35	0.36	0.38	0.36	3.16	ppb
Lithium	6-1				108		%
Magnesium	24-2	29866.03	29896.20	29738.36	29833.53	0.28	ppb
Manganese	55-2	8.57	8.60	8.53	8.57	0.39	ppb
Molybdenum	94-1	4.54	4.60	4.77	4.64	2.58	ppb
Molybdenum	95-1	5.25	5.26	5.46	5.32	2.30	ppb
Molybdenum	96-1	5.12	5.24	5.46	5.27	3.21	ppb
Molybdenum	97-1	5.33	5.33	5.53	5.40	2.13	ppb
Molybdenum	98-1	5.21	5.28	5.54	5.34	3.20	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.02	1.04	1.03	1.03	1.23	ppb
Phosphorus	31-2	15.35	21.28	20.94	19.19	17.35	ppb
Potassium	39-2	4097.47	4022.21	4045.58	4055.09	0.95	ppb
Rhodium	103-1				108		%
Rhodium	103-2				106		%
Scandium	45-1				108		%
Scandium	45-2				108		%
Selenium	82-1	0.06	-0.30	-0.11	-0.11		ppb
Selenium	77-2	-0.06	0.20	0.39	0.17	129.69	ppb
Selenium	78-2	-0.95	-0.86	-0.84	-0.88		ppb
Silicon	28-1	604.68	618.09	639.03	620.60	2.79	ppb
Silver	107-1	0.00	0.00	0.00	0.00	29.79	ppb
Silver	109-1	0.00	0.00	0.00	0.00	34.63	ppb
Sodium	23-2	16103.31	16094.51	16049.79	16082.54	0.18	ppb
Strontium	86-1	65793.33	67160.75	69688.87	67547.65	2.93	ppb
Strontium	88-1	66438.15	66727.58	69386.36	67517.37	2.41	ppb
Sulfur	34-1	17452.64	17695.86	18766.12	17971.54	3.89	ppb
Terbium	159-1				113		%
Terbium	159-2				109		%
Thallium	203-1	0.01	0.01	0.01	0.01	15.43	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	9.07	ppb
Tin	118-1	-0.14	-0.13	-0.13	-0.14		ppb
Titanium	47-1	3.30	0.43	0.45	1.39	118.54	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-15

Instrumnet Name :

P7

Client Sample ID :

E2A07

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:34:18

DataFile Name :

041SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.87	0.90	0.91	0.89	2.26	ppb
Vanadium	51-2	0.20	0.24	0.23	0.22	8.64	ppb
Yttrium	89-1				111		%
Yttrium	89-2				107		%
Zinc	66-2	-3.32	-3.18	-3.11	-3.20		ppb
Zirconium	90-1	0.08	0.08	0.08	0.08	3.73	ppb
Zirconium	91-1	0.07	0.07	0.07	0.07	2.81	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-16 Instrumnet Name : P7
Client Sample ID : E2A09 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:37:28 DataFile Name : 042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	16.01	16.74	16.17	16.30	2.34	ppb
Antimony	121-1	0.06	0.07	0.07	0.07	6.47	ppb
Arsenic	75-2	1.55	1.56	1.54	1.55	0.50	ppb
Barium	135-1	90.35	95.18	93.75	93.09	2.67	ppb
Barium	137-1	90.84	96.18	95.53	94.18	3.09	ppb
Beryllium	9-1	-0.02	-0.03	-0.02	-0.02		ppb
Bismuth	209-1				115		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.00	0.03	0.00	0.01	131.04	ppb
Cadmium	106-1	-0.69	-0.95	-1.73	-1.12		ppb
Cadmium	111-1	-0.05	-0.07	-0.12	-0.08		ppb
Calcium	43-1	73990.67	77939.81	77337.95	76422.81	2.78	ppb
Calcium	44-1	73435.00	76546.94	76542.51	75508.15	2.38	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.18	-0.18	-0.18	-0.18		ppb
Cobalt	59-2	0.12	0.12	0.12	0.12	1.84	ppb
Copper	63-2	0.67	0.63	0.68	0.66	3.73	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				117		%
Holmium	165-2				109		%
Indium	115-1				113		%
Indium	115-2				107		%
Iron	56-2	55.03	54.33	56.03	55.13	1.55	ppb
Iron	57-2	447.94	455.39	456.87	453.40	1.06	ppb
Iron	54-2	52.57	53.71	54.34	53.54	1.67	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-16 Instrumnet Name : P7
Client Sample ID : E2A09 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:37:28 DataFile Name : 042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.13	0.14	0.12	0.13	6.10	ppb
Lead	207-1	0.12	0.13	0.12	0.12	4.28	ppb
Lead	208-1	0.12	0.13	0.12	0.12	6.18	ppb
Lithium	6-1				110		%
Magnesium	24-2	29797.32	29264.28	29621.00	29560.87	0.92	ppb
Manganese	55-2	5.97	5.86	6.01	5.95	1.35	ppb
Molybdenum	94-1	4.21	4.38	4.35	4.31	2.11	ppb
Molybdenum	95-1	5.00	5.25	5.28	5.18	2.93	ppb
Molybdenum	96-1	4.95	5.16	5.10	5.07	2.14	ppb
Molybdenum	97-1	5.05	5.29	5.26	5.20	2.45	ppb
Molybdenum	98-1	5.15	5.28	5.24	5.22	1.34	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.91	0.89	0.86	0.89	2.81	ppb
Phosphorus	31-2	16.45	13.32	20.25	16.67	20.79	ppb
Potassium	39-2	4007.28	3983.59	4014.81	4001.89	0.41	ppb
Rhodium	103-1				110		%
Rhodium	103-2				106		%
Scandium	45-1				111		%
Scandium	45-2				108		%
Selenium	82-1	-0.08	-0.18	0.07	-0.06		ppb
Selenium	77-2	0.20	0.11	0.03	0.11	77.63	ppb
Selenium	78-2	-0.37	-0.64	-0.35	-0.45		ppb
Silicon	28-1	582.06	601.07	589.29	590.81	1.62	ppb
Silver	107-1	0.00	0.00	0.00	0.00	30.66	ppb
Silver	109-1	0.00	0.00	0.00	0.00	81.59	ppb
Sodium	23-2	15559.05	15230.72	15615.84	15468.54	1.34	ppb
Strontium	86-1	64382.76	67310.71	66853.33	66182.27	2.38	ppb
Strontium	88-1	64691.99	67013.48	66822.16	66175.88	1.95	ppb
Sulfur	34-1	16406.62	17423.90	17178.01	17002.84	3.12	ppb
Terbium	159-1				117		%
Terbium	159-2				110		%
Thallium	203-1	0.01	0.01	0.01	0.01	20.38	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	32.72	ppb
Tin	118-1	-0.21	-0.20	-0.21	-0.21		ppb
Titanium	47-1	0.45	0.78	0.52	0.59	29.76	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-16

Instrumnet Name :

P7

Client Sample ID :

E2A09

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:37:28

DataFile Name :

042SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.83	0.87	0.87	0.86	3.18	ppb
Vanadium	51-2	0.22	0.22	0.23	0.22	2.14	ppb
Yttrium	89-1				114		%
Yttrium	89-2				108		%
Zinc	66-2	-2.66	-2.85	-2.59	-2.70		ppb
Zirconium	90-1	0.04	0.04	0.03	0.04	15.90	ppb
Zirconium	91-1	0.04	0.03	0.03	0.03	5.08	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4877-17Instrumnet Name :P7

Client Sample ID :E2A20Dilution Factor :1

Date & Time Acquired :2024-11-22 15:40:37DataFile Name :043SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.68	0.74	0.75	0.72	5.56	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	225.46	ppb
Arsenic	75-2	-0.02	-0.02	-0.02	-0.02		ppb
Barium	135-1	-0.02	-0.03	-0.02	-0.02		ppb
Barium	137-1	-0.02	-0.03	-0.03	-0.03		ppb
Beryllium	9-1	-0.03	-0.04	-0.04	-0.03		ppb
Bismuth	209-1				114		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.04	-0.03	-0.01	-0.03		ppb
Cadmium	106-1	-0.83	-1.76	-0.95	-1.18		ppb
Cadmium	111-1	-0.07	-0.14	-0.08	-0.09		ppb
Calcium	43-1	-37.77	-45.33	-46.85	-43.32		ppb
Calcium	44-1	-38.23	-40.79	-41.70	-40.24		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.19	-0.19	-0.19	-0.19		ppb
Cobalt	59-2	-0.02	-0.02	-0.02	-0.02		ppb
Copper	63-2	-0.03	-0.03	-0.02	-0.03		ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				114		%
Holmium	165-2				109		%
Indium	115-1				111		%
Indium	115-2				107		%
Iron	56-2	-0.32	-0.30	-0.39	-0.34		ppb
Iron	57-2	-0.93	-1.24	-1.06	-1.08		ppb
Iron	54-2	-2.00	-2.65	-2.20	-2.28		ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-17 Instrumnet Name : P7
Client Sample ID : E2A20 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:40:37 DataFile Name : 043SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.02	-0.02	-0.02	-0.02		ppb
Lead	207-1	-0.02	-0.02	-0.02	-0.02		ppb
Lead	208-1	-0.02	-0.02	-0.02	-0.02		ppb
Lithium	6-1				106		%
Magnesium	24-2	-0.91	-1.12	-0.98	-1.01		ppb
Manganese	55-2	-1.00	-1.00	-1.04	-1.02		ppb
Molybdenum	94-1	-0.02	-0.01	-0.01	-0.02		ppb
Molybdenum	95-1	-0.01	-0.02	-0.02	-0.02		ppb
Molybdenum	96-1	-0.01	-0.02	-0.02	-0.02		ppb
Molybdenum	97-1	-0.01	-0.01	-0.02	-0.01		ppb
Molybdenum	98-1	-0.01	-0.01	-0.01	-0.01		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.04	-0.06	-0.08	-0.06		ppb
Phosphorus	31-2	-17.49	-18.78	-19.89	-18.72		ppb
Potassium	39-2	1.05	0.48	1.34	0.96	45.46	ppb
Rhodium	103-1				110		%
Rhodium	103-2				108		%
Scandium	45-1				106		%
Scandium	45-2				105		%
Selenium	82-1	-0.07	-0.20	-0.27	-0.18		ppb
Selenium	77-2	-0.06	0.02	0.03	0.00		ppb
Selenium	78-2	-0.67	-0.74	-1.30	-0.90		ppb
Silicon	28-1	-1.75	-1.72	-1.57	-1.68		ppb
Silver	107-1	0.00	0.00	0.00	0.00	275.83	ppb
Silver	109-1	0.00	0.00	0.00	0.00	160.93	ppb
Sodium	23-2	-11.60	-11.74	-11.46	-11.60		ppb
Strontium	86-1	6.03	4.00	2.72	4.25	39.19	ppb
Strontium	88-1	6.08	3.98	2.61	4.22	41.38	ppb
Sulfur	34-1	65.13	70.86	179.99	105.32	61.45	ppb
Terbium	159-1				113		%
Terbium	159-2				110		%
Thallium	203-1	0.00	0.00	0.00	0.00		ppb
Thallium	205-1	0.00	0.00	0.00	0.00		ppb
Tin	118-1	-0.16	-0.17	-0.14	-0.15		ppb
Titanium	47-1	-0.04	-0.02	-0.03	-0.03		ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-17

Instrumnet Name :

P7

Client Sample ID :

E2A20

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:40:37

DataFile Name :

043SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.01	0.01	0.01	0.01	7.88	ppb
Yttrium	89-1				109		%
Yttrium	89-2				107		%
Zinc	66-2	-4.29	-4.27	-4.26	-4.27		ppb
Zirconium	90-1	-0.01	-0.01	-0.01	-0.01		ppb
Zirconium	91-1	0.00	-0.01	0.00	-0.01		ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-18 Instrumnet Name : P7
Client Sample ID : E2A24 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:43:55 DataFile Name : 044SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.82	0.72	1.08	0.87	21.46	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	310.74	ppb
Arsenic	75-2	-0.02	-0.01	-0.01	-0.01		ppb
Barium	135-1	-0.01	-0.03	-0.01	-0.02		ppb
Barium	137-1	-0.02	-0.02	-0.02	-0.02		ppb
Beryllium	9-1	-0.03	-0.02	-0.02	-0.02		ppb
Bismuth	209-1				117		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.03	-0.02	0.00	-0.02		ppb
Cadmium	106-1	-0.05	-1.13	-1.05	-0.74		ppb
Cadmium	111-1	-0.01	-0.09	-0.08	-0.06		ppb
Calcium	43-1	-42.93	-39.13	-40.45	-40.84		ppb
Calcium	44-1	-43.28	-43.91	-44.23	-43.81		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.10	-0.11	-0.04	-0.08		ppb
Cobalt	59-2	-0.01	-0.02	-0.01	-0.01		ppb
Copper	63-2	0.00	0.01	0.00	0.00	279.23	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				114		%
Holmium	165-2				108		%
Indium	115-1				111		%
Indium	115-2				106		%
Iron	56-2	0.00	0.12	0.38	0.17	115.15	ppb
Iron	57-2	-1.36	-0.58	-0.02	-0.65		ppb
Iron	54-2	-1.89	-1.70	-1.09	-1.56		ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-18 Instrumnet Name : P7
Client Sample ID : E2A24 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:43:55 DataFile Name : 044SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.02	-0.01	-0.02	-0.02		ppb
Lead	207-1	-0.02	-0.02	-0.01	-0.02		ppb
Lead	208-1	-0.01	-0.02	-0.02	-0.01		ppb
Lithium	6-1				109		%
Magnesium	24-2	-1.67	-1.57	-1.47	-1.57		ppb
Manganese	55-2	-0.75	-0.74	-0.64	-0.71		ppb
Molybdenum	94-1	-0.01	-0.03	-0.03	-0.02		ppb
Molybdenum	95-1	-0.02	-0.01	-0.01	-0.01		ppb
Molybdenum	96-1	-0.02	-0.02	-0.01	-0.02		ppb
Molybdenum	97-1	-0.02	-0.02	-0.01	-0.02		ppb
Molybdenum	98-1	-0.01	-0.01	-0.01	-0.01		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.08	0.10	0.12	0.10	17.40	ppb
Phosphorus	31-2	-21.10	-21.13	-19.39	-20.54		ppb
Potassium	39-2	1.12	1.16	6.70	2.99	107.18	ppb
Rhodium	103-1				111		%
Rhodium	103-2				107		%
Scandium	45-1				107		%
Scandium	45-2				104		%
Selenium	82-1	0.01	0.14	0.07	0.07	90.10	ppb
Selenium	77-2	-0.06	0.02	-0.06	-0.03		ppb
Selenium	78-2	-0.70	-0.54	-0.55	-0.60		ppb
Silicon	28-1	-2.08	-1.95	-1.90	-1.98		ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	141.97	ppb
Sodium	23-2	-10.73	-10.25	-6.24	-9.07		ppb
Strontium	86-1	-0.48	-0.52	-0.75	-0.58		ppb
Strontium	88-1	-0.45	-0.49	-0.44	-0.46		ppb
Sulfur	34-1	47.52	80.13	74.24	67.30	25.82	ppb
Terbium	159-1				113		%
Terbium	159-2				108		%
Thallium	203-1	0.00	-0.01	-0.01	0.00		ppb
Thallium	205-1	0.00	0.00	-0.01	0.00		ppb
Tin	118-1	-0.12	-0.12	-0.13	-0.12		ppb
Titanium	47-1	-0.02	-0.03	-0.02	-0.03		ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-18

Instrumnet Name :

P7

Client Sample ID :

E2A24

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:43:55

DataFile Name :

044SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.00	0.01	0.00	0.00	33.99	ppb
Yttrium	89-1				109		%
Yttrium	89-2				106		%
Zinc	66-2	-4.29	-4.06	-3.89	-4.08		ppb
Zirconium	90-1	-0.01	-0.01	-0.01	-0.01		ppb
Zirconium	91-1	-0.01	-0.01	-0.01	-0.01		ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCV002 Instrumnet Name : P7
Client Sample ID : CCV002 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:50:25 DataFile Name : 046CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	49945.67	50582.23	49447.34	49991.75	1.14	ppb
Antimony	121-1	517.39	516.28	518.78	517.48	0.24	ppb
Arsenic	75-2	523.79	532.37	530.17	528.77	0.84	ppb
Barium	135-1	2533.77	2566.39	2567.19	2555.78	0.75	ppb
Barium	137-1	2531.33	2559.37	2588.78	2559.83	1.12	ppb
Beryllium	9-1	495.61	516.14	518.17	509.97	2.45	ppb
Bismuth	209-1				100		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	520.68	532.10	530.36	527.71	1.17	ppb
Cadmium	106-1	525.21	533.44	529.95	529.53	0.78	ppb
Cadmium	111-1	521.65	524.94	526.30	524.30	0.46	ppb
Calcium	43-1	252635.67	256635.72	252660.40	253977.26	0.91	ppb
Calcium	44-1	250629.11	256213.20	251748.50	252863.60	1.17	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	506.64	518.84	516.66	514.05	1.26	ppb
Cobalt	59-2	528.29	535.39	520.22	527.97	1.44	ppb
Copper	63-2	5180.03	5205.70	5037.35	5141.03	1.76	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				108		%
Holmium	165-2				105		%
Indium	115-1				100		%
Indium	115-2				99		%
Iron	56-2	129976.65	129904.56	127124.23	129001.81	1.26	ppb
Iron	57-2	127976.50	131091.93	127943.61	129004.02	1.40	ppb
Iron	54-2	128134.40	130007.92	129327.95	129156.76	0.73	ppb
Krypton	83-1						cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCV002

Instrumnet Name :

P7

Client Sample ID :

CCV002

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:50:25

DataFile Name :

046CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2620.64	2655.38	2630.45	2635.49	0.68	ppb
Lead	207-1	2596.84	2621.43	2628.49	2615.59	0.64	ppb
Lead	208-1	2598.02	2629.01	2622.58	2616.54	0.63	ppb
Lithium	6-1				99		%
Magnesium	24-2	259070.24	259865.95	254312.15	257749.45	1.17	ppb
Manganese	55-2	5088.24	5108.10	5088.46	5094.94	0.22	ppb
Molybdenum	94-1	5166.87	5180.27	5086.01	5144.38	0.99	ppb
Molybdenum	95-1	5148.23	5160.30	5048.78	5119.10	1.20	ppb
Molybdenum	96-1	5133.63	5125.72	5052.61	5103.99	0.88	ppb
Molybdenum	97-1	5130.59	5180.60	5094.94	5135.37	0.84	ppb
Molybdenum	98-1	5121.90	5210.88	5143.54	5158.78	0.90	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	522.18	525.88	516.52	521.53	0.90	ppb
Phosphorus	31-2	10251.47	10486.56	10228.12	10322.05	1.38	ppb
Potassium	39-2	124541.01	126340.22	124605.52	125162.25	0.82	ppb
Rhodium	103-1				96		%
Rhodium	103-2				97		%
Scandium	45-1				101		%
Scandium	45-2				103		%
Selenium	82-1	516.64	524.76	512.85	518.08	1.17	ppb
Selenium	77-2	528.50	521.20	514.50	521.40	1.34	ppb
Selenium	78-2	512.12	506.94	510.76	509.94	0.53	ppb
Silicon	28-1	371.74	373.32	371.26	372.11	0.29	ppb
Silver	107-1	507.90	511.62	513.76	511.10	0.58	ppb
Silver	109-1	512.29	506.26	510.03	509.53	0.60	ppb
Sodium	23-2	262709.23	259760.14	254503.51	258990.96	1.60	ppb
Strontium	86-1	13016.02	12989.12	12717.35	12907.50	1.28	ppb
Strontium	88-1	12847.88	12991.55	12725.74	12855.05	1.04	ppb
Sulfur	34-1	9938.68	11459.45	11375.61	10924.58	7.82	ppb
Terbium	159-1				108		%
Terbium	159-2				105		%
Thallium	203-1	518.21	525.76	529.07	524.35	1.06	ppb
Thallium	205-1	527.46	532.64	529.48	529.86	0.49	ppb
Tin	118-1	506.91	509.22	511.36	509.16	0.44	ppb
Titanium	47-1	5065.70	5126.65	5083.44	5091.93	0.62	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCV002

Instrumnet Name :

P7

Client Sample ID :

CCV002

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:50:25

DataFile Name :

046CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	523.88	532.64	526.88	527.80	0.84	ppb
Vanadium	51-2	514.33	521.82	513.17	516.44	0.91	ppb
Yttrium	89-1				103		%
Yttrium	89-2				104		%
Zinc	66-2	5156.89	5185.08	5065.82	5135.93	1.21	ppb
Zirconium	90-1	513.05	518.82	513.92	515.26	0.60	ppb
Zirconium	91-1	514.25	520.62	510.70	515.19	0.98	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCB002

Instrumnet Name :

P7

Client Sample ID :

CCB002

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:53:06

DataFile Name :

047CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.74	1.47	1.25	1.49	16.49	ppb
Antimony	121-1	0.24	0.23	0.31	0.26	17.02	ppb
Arsenic	75-2	0.01	0.02	0.01	0.01	64.45	ppb
Barium	135-1	0.42	0.20	0.15	0.25	56.55	ppb
Barium	137-1	0.44	0.19	0.13	0.25	65.29	ppb
Beryllium	9-1	0.11	0.04	0.04	0.06	69.48	ppb
Bismuth	209-1				108		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.13	0.04	0.06	0.08	62.63	ppb
Cadmium	106-1	-0.45	-1.03	-1.44	-0.97		ppb
Cadmium	111-1	0.06	-0.02	-0.06	-0.01		ppb
Calcium	43-1	56.82	25.46	15.66	32.65	65.84	ppb
Calcium	44-1	55.13	23.33	16.71	31.72	64.74	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.03	0.00	0.04	0.02	100.12	ppb
Cobalt	59-2	0.01	0.00	0.00	0.00	187.67	ppb
Copper	63-2	0.24	0.20	0.20	0.21	11.14	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				108		%
Holmium	165-2				107		%
Indium	115-1				106		%
Indium	115-2				105		%
Iron	56-2	4.68	3.90	3.30	3.96	17.38	ppb
Iron	57-2	3.43	2.47	3.79	3.23	21.07	ppb
Iron	54-2	5.00	4.16	3.27	4.14	20.79	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB002 Instrumnet Name : P7
Client Sample ID : CCB002 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:53:06 DataFile Name : 047CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.45	0.23	0.15	0.28	56.78	ppb
Lead	207-1	0.45	0.23	0.15	0.28	55.53	ppb
Lead	208-1	0.45	0.21	0.16	0.27	56.79	ppb
Lithium	6-1				102		%
Magnesium	24-2	7.76	6.47	5.56	6.60	16.76	ppb
Manganese	55-2	0.27	0.24	0.20	0.23	15.12	ppb
Molybdenum	94-1	1.17	0.72	0.64	0.84	33.61	ppb
Molybdenum	95-1	0.99	0.55	0.40	0.64	47.72	ppb
Molybdenum	96-1	1.01	0.56	0.43	0.67	45.82	ppb
Molybdenum	97-1	1.00	0.55	0.39	0.65	48.78	ppb
Molybdenum	98-1	0.98	0.55	0.40	0.64	46.81	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.04	0.02	0.01	0.02	83.16	ppb
Phosphorus	31-2	-19.74	-17.67	-16.85	-18.08		ppb
Potassium	39-2	10.45	8.02	7.07	8.51	20.50	ppb
Rhodium	103-1				106		%
Rhodium	103-2				107		%
Scandium	45-1				103		%
Scandium	45-2				104		%
Selenium	82-1	0.48	0.09	-0.08	0.16	180.60	ppb
Selenium	77-2	-0.06	-0.06	-0.06	-0.06		ppb
Selenium	78-2	-0.47	-0.90	-0.44	-0.60		ppb
Silicon	28-1	0.16	-0.62	-0.61	-0.36		ppb
Silver	107-1	0.10	0.05	0.04	0.06	51.92	ppb
Silver	109-1	0.11	0.05	0.04	0.07	55.77	ppb
Sodium	23-2	7.51	5.06	3.92	5.50	33.30	ppb
Strontium	86-1	2.73	1.52	0.67	1.64	62.86	ppb
Strontium	88-1	2.44	1.07	0.61	1.38	68.98	ppb
Sulfur	34-1	167.06	-60.33	-26.12	26.87	456.28	ppb
Terbium	159-1				107		%
Terbium	159-2				108		%
Thallium	203-1	0.09	0.06	0.04	0.06	43.13	ppb
Thallium	205-1	0.09	0.05	0.04	0.06	43.70	ppb
Tin	118-1	0.13	0.05	0.06	0.08	54.94	ppb
Titanium	47-1	0.84	0.44	0.26	0.51	57.74	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCB002

Instrumnet Name :

P7

Client Sample ID :

CCB002

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:53:06

DataFile Name :

047CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.09	0.04	0.03	0.05	60.66	ppb
Vanadium	51-2	0.02	0.02	0.01	0.02	39.49	ppb
Yttrium	89-1				105		%
Yttrium	89-2				107		%
Zinc	66-2	0.48	0.20	0.39	0.36	40.80	ppb
Zirconium	90-1	0.19	0.15	0.17	0.17	12.40	ppb
Zirconium	91-1	0.19	0.16	0.14	0.17	14.76	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-01

Instrumnet Name :

P7

Client Sample ID :

E29Z2

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:56:23

DataFile Name :

048SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.13	1.23	1.28	1.22	6.33	ppb
Antimony	121-1	0.09	0.10	0.11	0.10	9.85	ppb
Arsenic	75-2	1.44	1.46	1.49	1.46	1.94	ppb
Barium	135-1	90.67	91.04	89.41	90.37	0.95	ppb
Barium	137-1	92.04	92.18	90.83	91.69	0.81	ppb
Beryllium	9-1	-0.01	-0.01	-0.01	-0.01		ppb
Bismuth	209-1				115		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.03	0.03	0.02	0.03	13.64	ppb
Cadmium	106-1	0.18	-0.47	-0.98	-0.42		ppb
Cadmium	111-1	0.02	-0.03	-0.07	-0.03		ppb
Calcium	43-1	76824.97	76386.37	77696.33	76969.23	0.87	ppb
Calcium	44-1	76678.62	76338.76	76388.49	76468.62	0.24	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.52	0.59	0.58	0.56	6.49	ppb
Cobalt	59-2	0.11	0.11	0.11	0.11	0.21	ppb
Copper	63-2	1.19	1.12	1.19	1.17	3.23	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				118		%
Holmium	165-2				112		%
Indium	115-1				115		%
Indium	115-2				110		%
Iron	56-2	16.16	15.30	16.35	15.94	3.48	ppb
Iron	57-2	410.41	412.53	415.24	412.73	0.59	ppb
Iron	54-2	14.94	14.31	13.48	14.24	5.13	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-01 Instrumnet Name : P7
Client Sample ID : E29Z2 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:56:23 DataFile Name : 048SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.04	0.03	0.02	0.03	24.89	ppb
Lead	207-1	0.04	0.03	0.02	0.03	34.22	ppb
Lead	208-1	0.03	0.03	0.02	0.03	24.26	ppb
Lithium	6-1				113		%
Magnesium	24-2	30068.45	29677.56	30010.52	29918.84	0.71	ppb
Manganese	55-2	2.72	2.66	2.67	2.68	1.19	ppb
Molybdenum	94-1	4.40	4.44	4.45	4.43	0.64	ppb
Molybdenum	95-1	5.16	5.21	5.22	5.20	0.62	ppb
Molybdenum	96-1	5.12	5.03	5.09	5.08	0.87	ppb
Molybdenum	97-1	5.15	5.25	5.31	5.23	1.50	ppb
Molybdenum	98-1	5.19	5.19	5.22	5.20	0.35	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.38	1.35	1.40	1.38	1.81	ppb
Phosphorus	31-2	17.86	16.23	19.50	17.86	9.13	ppb
Potassium	39-2	3976.21	3924.85	3935.98	3945.68	0.68	ppb
Rhodium	103-1				113		%
Rhodium	103-2				109		%
Scandium	45-1				114		%
Scandium	45-2				111		%
Selenium	82-1	0.13	0.26	-0.09	0.10	171.66	ppb
Selenium	77-2	0.02	0.02	-0.06	-0.01		ppb
Selenium	78-2	-0.97	-0.90	-0.47	-0.78		ppb
Silicon	28-1	573.89	575.33	592.64	580.62	1.80	ppb
Silver	107-1	0.00	0.00	0.00	0.00	11.71	ppb
Silver	109-1	0.00	0.00	0.00	0.00	6.94	ppb
Sodium	23-2	15081.36	14885.70	14951.16	14972.74	0.67	ppb
Strontium	86-1	63600.32	63296.61	63349.16	63415.36	0.26	ppb
Strontium	88-1	63575.03	62549.13	63170.97	63098.38	0.82	ppb
Sulfur	34-1	16058.46	16097.76	16724.18	16293.47	2.29	ppb
Terbium	159-1				118		%
Terbium	159-2				112		%
Thallium	203-1	0.03	0.03	0.03	0.03	5.34	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	9.69	ppb
Tin	118-1	-0.19	-0.18	-0.16	-0.18		ppb
Titanium	47-1	0.20	0.20	0.24	0.21	11.31	ppb

LB Number :LB133596

Operator :Jaswal

Lab Sample ID :P4878-01

Instrumnet Name :P7

Client Sample ID :E29Z2

Dilution Factor :1

Date & Time Acquired :2024-11-22 15:56:23

DataFile Name :048SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.86	0.88	0.88	0.87	1.66	ppb
Vanadium	51-2	0.22	0.19	0.20	0.20	5.47	ppb
Yttrium	89-1				116		%
Yttrium	89-2				111		%
Zinc	66-2	-1.05	-1.26	-1.05	-1.12		ppb
Zirconium	90-1	0.05	0.04	0.07	0.05	25.74	ppb
Zirconium	91-1	0.04	0.06	0.08	0.06	29.37	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4878-02Instrumnet Name :P7

Client Sample ID :E29Z4Dilution Factor :1

Date & Time Acquired :2024-11-22 15:59:30DataFile Name :049SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.54	1.36	1.14	1.35	14.91	ppb
Antimony	121-1	0.07	0.08	0.08	0.07	6.44	ppb
Arsenic	75-2	1.53	1.48	1.49	1.50	1.58	ppb
Barium	135-1	90.34	92.01	91.83	91.40	1.00	ppb
Barium	137-1	91.54	93.46	92.31	92.43	1.04	ppb
Beryllium	9-1	-0.01	-0.02	-0.01	-0.01		ppb
Bismuth	209-1				115		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.05	-0.03	0.02	0.01	359.73	ppb
Cadmium	106-1	0.03	-0.66	-1.18	-0.60		ppb
Cadmium	111-1	0.00	-0.04	-0.09	-0.04		ppb
Calcium	43-1	78141.92	77319.41	77950.90	77804.07	0.55	ppb
Calcium	44-1	76428.37	76596.91	77716.83	76914.04	0.91	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.11	-0.13	-0.12	-0.12		ppb
Cobalt	59-2	0.10	0.11	0.09	0.10	7.78	ppb
Copper	63-2	0.78	0.80	0.77	0.78	1.99	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				118		%
Holmium	165-2				112		%
Indium	115-1				114		%
Indium	115-2				110		%
Iron	56-2	15.92	16.23	15.96	16.04	1.05	ppb
Iron	57-2	396.83	413.49	409.39	406.57	2.14	ppb
Iron	54-2	13.36	13.87	13.25	13.49	2.44	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-02 Instrumnet Name : P7
Client Sample ID : E29Z4 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:59:30 DataFile Name : 049SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.08	0.09	0.09	0.09	4.35	ppb
Lead	207-1	0.07	0.06	0.07	0.07	6.27	ppb
Lead	208-1	0.08	0.08	0.08	0.08	1.77	ppb
Lithium	6-1				113		%
Magnesium	24-2	29678.74	30311.63	29925.82	29972.06	1.06	ppb
Manganese	55-2	2.61	2.73	2.59	2.64	2.75	ppb
Molybdenum	94-1	4.40	4.35	4.31	4.35	1.03	ppb
Molybdenum	95-1	5.18	5.15	5.05	5.13	1.28	ppb
Molybdenum	96-1	5.07	5.06	4.99	5.04	0.88	ppb
Molybdenum	97-1	5.23	5.18	5.19	5.20	0.51	ppb
Molybdenum	98-1	5.24	5.20	5.26	5.24	0.57	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.88	0.93	0.91	0.91	3.02	ppb
Phosphorus	31-2	16.33	16.60	19.20	17.38	9.12	ppb
Potassium	39-2	3922.74	4042.14	3987.68	3984.19	1.50	ppb
Rhodium	103-1				112		%
Rhodium	103-2				109		%
Scandium	45-1				112		%
Scandium	45-2				111		%
Selenium	82-1	0.25	-0.11	-0.07	0.02	790.76	ppb
Selenium	77-2	0.19	-0.06	-0.06	0.02	683.42	ppb
Selenium	78-2	-0.47	-0.44	-0.71	-0.54		ppb
Silicon	28-1	579.77	584.90	581.92	582.19	0.44	ppb
Silver	107-1	0.00	0.00	0.00	0.00	30.10	ppb
Silver	109-1	0.00	0.00	0.00	0.00	8.86	ppb
Sodium	23-2	14858.77	15098.03	14897.79	14951.53	0.86	ppb
Strontium	86-1	64392.96	64232.81	63267.14	63964.30	0.95	ppb
Strontium	88-1	64120.23	64043.57	63626.92	63930.24	0.42	ppb
Sulfur	34-1	16573.98	16845.91	16793.86	16737.92	0.86	ppb
Terbium	159-1				117		%
Terbium	159-2				113		%
Thallium	203-1	0.02	0.02	0.02	0.02	6.90	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	2.69	ppb
Tin	118-1	-0.17	-0.17	-0.16	-0.16		ppb
Titanium	47-1	0.17	0.17	0.21	0.18	14.09	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-02

Instrumnet Name :

P7

Client Sample ID :

E29Z4

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:59:30

DataFile Name :

049SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.87	0.88	0.89	0.88	1.32	ppb
Vanadium	51-2	0.19	0.20	0.20	0.19	3.45	ppb
Yttrium	89-1				115		%
Yttrium	89-2				111		%
Zinc	66-2	-4.14	-4.24	-4.14	-4.18		ppb
Zirconium	90-1	0.05	0.05	0.06	0.05	13.19	ppb
Zirconium	91-1	0.05	0.05	0.06	0.05	10.86	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-03 Instrumnet Name : P7
Client Sample ID : E29Z6 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:02:40 DataFile Name : 050SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.05	1.26	1.24	1.18	10.06	ppb
Antimony	121-1	0.07	0.07	0.08	0.07	5.77	ppb
Arsenic	75-2	1.37	1.37	1.34	1.36	1.36	ppb
Barium	135-1	88.52	89.45	88.98	88.99	0.52	ppb
Barium	137-1	90.58	90.07	90.90	90.52	0.47	ppb
Beryllium	9-1	-0.02	-0.01	-0.01	-0.02		ppb
Bismuth	209-1				115		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.02	0.04	0.00	0.01	607.98	ppb
Cadmium	106-1	0.26	-0.26	-0.59	-0.20		ppb
Cadmium	111-1	0.02	-0.02	-0.04	-0.01		ppb
Calcium	43-1	76817.74	76589.25	77229.70	76878.90	0.42	ppb
Calcium	44-1	75305.38	75873.46	75185.80	75454.88	0.49	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.27	0.23	0.20	0.24	13.86	ppb
Cobalt	59-2	0.10	0.10	0.10	0.10	1.93	ppb
Copper	63-2	0.73	0.78	0.73	0.75	3.53	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				116		%
Holmium	165-2				110		%
Indium	115-1				113		%
Indium	115-2				108		%
Iron	56-2	20.00	19.80	18.87	19.56	3.09	ppb
Iron	57-2	413.58	417.84	405.23	412.22	1.56	ppb
Iron	54-2	18.47	18.06	16.65	17.73	5.41	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-03 Instrumnet Name : P7
Client Sample ID : E29Z6 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:02:40 DataFile Name : 050SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.07	0.22	0.07	0.12	72.98	ppb
Lead	207-1	0.06	0.19	0.07	0.11	68.42	ppb
Lead	208-1	0.06	0.18	0.06	0.10	71.69	ppb
Lithium	6-1				112		%
Magnesium	24-2	30703.18	30188.58	29267.22	30053.00	2.42	ppb
Manganese	55-2	17.45	17.31	16.58	17.12	2.72	ppb
Molybdenum	94-1	4.23	4.35	4.29	4.29	1.35	ppb
Molybdenum	95-1	4.97	5.09	5.12	5.06	1.59	ppb
Molybdenum	96-1	4.88	4.94	4.95	4.92	0.76	ppb
Molybdenum	97-1	5.07	5.14	5.20	5.14	1.32	ppb
Molybdenum	98-1	5.00	5.11	5.13	5.08	1.38	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.81	0.78	0.78	0.79	2.21	ppb
Phosphorus	31-2	19.13	20.39	19.60	19.71	3.22	ppb
Potassium	39-2	4079.28	4016.91	3888.64	3994.94	2.43	ppb
Rhodium	103-1				110		%
Rhodium	103-2				107		%
Scandium	45-1				110		%
Scandium	45-2				108		%
Selenium	82-1	-0.14	-0.01	-0.14	-0.10		ppb
Selenium	77-2	0.11	-0.06	-0.06	-0.01		ppb
Selenium	78-2	-1.07	-0.59	-0.59	-0.75		ppb
Silicon	28-1	572.74	585.33	574.30	577.46	1.19	ppb
Silver	107-1	0.00	0.00	0.00	0.00	17.75	ppb
Silver	109-1	0.00	0.00	0.00	0.00	14.64	ppb
Sodium	23-2	14965.13	14711.23	14300.65	14659.00	2.29	ppb
Strontium	86-1	62453.29	64252.50	63183.01	63296.27	1.43	ppb
Strontium	88-1	62389.95	64485.17	63004.94	63293.35	1.70	ppb
Sulfur	34-1	16523.49	16785.59	16507.58	16605.55	0.94	ppb
Terbium	159-1				115		%
Terbium	159-2				110		%
Thallium	203-1	0.03	0.02	0.02	0.02	21.98	ppb
Thallium	205-1	0.02	0.03	0.02	0.02	22.18	ppb
Tin	118-1	-0.20	-0.18	-0.20	-0.19		ppb
Titanium	47-1	0.17	0.30	0.25	0.24	26.92	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-03

Instrumnet Name :

P7

Client Sample ID :

E29Z6

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:02:40

DataFile Name :

050SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.88	0.89	0.86	0.88	1.66	ppb
Vanadium	51-2	0.18	0.19	0.19	0.19	2.59	ppb
Yttrium	89-1				113		%
Yttrium	89-2				109		%
Zinc	66-2	-2.13	-2.36	-2.58	-2.36		ppb
Zirconium	90-1	0.02	0.03	0.03	0.03	8.06	ppb
Zirconium	91-1	0.02	0.02	0.03	0.02	42.58	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-04

Instrumnet Name :

P7

Client Sample ID :

E29Z8

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:05:48

DataFile Name :

051SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.97	1.71	1.93	1.87	7.30	ppb
Antimony	121-1	0.06	0.07	0.07	0.07	6.83	ppb
Arsenic	75-2	1.58	1.40	1.47	1.48	5.95	ppb
Barium	135-1	89.64	90.38	90.93	90.31	0.72	ppb
Barium	137-1	90.65	91.93	90.91	91.17	0.74	ppb
Beryllium	9-1	-0.02	-0.01	-0.02	-0.02		ppb
Bismuth	209-1				112		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.02	-0.01	-0.01	-0.01		ppb
Cadmium	106-1	-0.73	-1.43	-1.41	-1.19		ppb
Cadmium	111-1	-0.05	-0.10	-0.10	-0.09		ppb
Calcium	43-1	77397.15	78162.12	77601.05	77720.11	0.51	ppb
Calcium	44-1	76733.19	76929.81	76897.13	76853.38	0.14	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.02	0.01	0.07	0.03	96.68	ppb
Cobalt	59-2	0.10	0.10	0.10	0.10	2.50	ppb
Copper	63-2	1.27	1.31	1.37	1.32	3.73	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				115		%
Holmium	165-2				109		%
Indium	115-1				112		%
Indium	115-2				107		%
Iron	56-2	16.19	16.33	16.88	16.47	2.20	ppb
Iron	57-2	408.62	419.48	427.18	418.43	2.23	ppb
Iron	54-2	14.49	14.85	15.36	14.90	2.94	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-04 Instrumnet Name : P7
Client Sample ID : E29Z8 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:05:48 DataFile Name : 051SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.13	0.13	0.14	0.13	1.89	ppb
Lead	207-1	0.11	0.13	0.11	0.12	8.06	ppb
Lead	208-1	0.12	0.13	0.13	0.13	2.06	ppb
Lithium	6-1				109		%
Magnesium	24-2	29807.07	30605.61	31104.92	30505.87	2.15	ppb
Manganese	55-2	9.28	9.46	9.78	9.51	2.62	ppb
Molybdenum	94-1	4.28	4.30	4.26	4.28	0.40	ppb
Molybdenum	95-1	5.10	5.09	5.12	5.11	0.36	ppb
Molybdenum	96-1	4.91	4.95	4.97	4.94	0.65	ppb
Molybdenum	97-1	5.05	5.11	5.15	5.10	0.96	ppb
Molybdenum	98-1	5.08	5.10	5.20	5.13	1.19	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.85	0.84	0.92	0.87	5.11	ppb
Phosphorus	31-2	16.28	16.52	17.80	16.87	4.84	ppb
Potassium	39-2	3887.68	3907.01	3989.04	3927.91	1.37	ppb
Rhodium	103-1				108		%
Rhodium	103-2				106		%
Scandium	45-1				110		%
Scandium	45-2				107		%
Selenium	82-1	-0.14	0.17	-0.17	-0.05		ppb
Selenium	77-2	0.11	0.11	-0.06	0.05	189.85	ppb
Selenium	78-2	-0.94	-0.63	-0.44	-0.67		ppb
Silicon	28-1	580.01	592.55	585.31	585.96	1.07	ppb
Silver	107-1	0.00	0.00	0.00	0.00	25.70	ppb
Silver	109-1	0.00	0.00	0.00	0.00	52.13	ppb
Sodium	23-2	15082.54	15111.13	15457.36	15217.01	1.37	ppb
Strontium	86-1	63883.57	64759.24	64644.45	64429.08	0.74	ppb
Strontium	88-1	63708.87	64385.94	64258.73	64117.85	0.56	ppb
Sulfur	34-1	16718.41	16670.23	16335.85	16574.83	1.26	ppb
Terbium	159-1				115		%
Terbium	159-2				110		%
Thallium	203-1	0.02	0.02	0.02	0.02	7.01	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	4.69	ppb
Tin	118-1	-0.13	-0.12	-0.13	-0.13		ppb
Titanium	47-1	0.22	0.23	0.19	0.21	10.62	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-04

Instrumnet Name :

P7

Client Sample ID :

E29Z8

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:05:48

DataFile Name :

051SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.89	0.89	0.90	0.89	0.27	ppb
Vanadium	51-2	0.21	0.22	0.21	0.21	1.14	ppb
Yttrium	89-1				113		%
Yttrium	89-2				108		%
Zinc	66-2	-2.48	-2.46	-2.37	-2.44		ppb
Zirconium	90-1	0.03	0.03	0.03	0.03	7.14	ppb
Zirconium	91-1	0.03	0.02	0.02	0.03	16.58	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-05 Instrumnet Name : P7
Client Sample ID : E2A14 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:08:57 DataFile Name : 052SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.09	1.21	1.41	1.24	12.76	ppb
Antimony	121-1	0.06	0.07	0.07	0.07	6.29	ppb
Arsenic	75-2	1.43	1.49	1.45	1.46	2.09	ppb
Barium	135-1	91.53	91.40	91.67	91.53	0.15	ppb
Barium	137-1	92.52	91.66	92.46	92.21	0.52	ppb
Beryllium	9-1	-0.02	-0.03	-0.02	-0.02		ppb
Bismuth	209-1				112		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.04	0.01	-0.02	0.01	266.45	ppb
Cadmium	106-1	-1.75	-0.76	-1.52	-1.34		ppb
Cadmium	111-1	-0.13	-0.05	-0.11	-0.10		ppb
Calcium	43-1	79373.31	78908.19	80012.66	79431.38	0.70	ppb
Calcium	44-1	78407.68	78072.76	78312.67	78264.37	0.22	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.57	0.57	0.53	0.56	4.37	ppb
Cobalt	59-2	0.13	0.12	0.14	0.13	7.39	ppb
Copper	63-2	1.30	1.31	1.29	1.30	0.59	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				114		%
Holmium	165-2				110		%
Indium	115-1				111		%
Indium	115-2				107		%
Iron	56-2	17.98	17.35	17.48	17.60	1.90	ppb
Iron	57-2	419.32	421.97	425.74	422.34	0.76	ppb
Iron	54-2	15.46	15.61	15.68	15.58	0.72	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-05 Instrumnet Name : P7
Client Sample ID : E2A14 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:08:57 DataFile Name : 052SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.07	0.08	0.07	0.07	2.46	ppb
Lead	207-1	0.05	0.07	0.08	0.07	23.70	ppb
Lead	208-1	0.07	0.07	0.08	0.07	6.53	ppb
Lithium	6-1				108		%
Magnesium	24-2	30976.78	30795.97	30661.11	30811.28	0.51	ppb
Manganese	55-2	8.70	8.64	8.62	8.65	0.51	ppb
Molybdenum	94-1	4.33	4.31	4.34	4.33	0.43	ppb
Molybdenum	95-1	5.12	5.09	5.25	5.15	1.63	ppb
Molybdenum	96-1	5.07	5.03	5.11	5.07	0.75	ppb
Molybdenum	97-1	5.18	5.27	5.27	5.24	0.97	ppb
Molybdenum	98-1	5.26	5.22	5.31	5.26	0.81	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.25	2.24	2.33	2.28	2.21	ppb
Phosphorus	31-2	25.02	21.16	20.33	22.17	11.30	ppb
Potassium	39-2	4143.51	4120.80	4157.38	4140.56	0.45	ppb
Rhodium	103-1				109		%
Rhodium	103-2				106		%
Scandium	45-1				108		%
Scandium	45-2				106		%
Selenium	82-1	0.25	0.07	-0.01	0.10	129.59	ppb
Selenium	77-2	-0.06	0.02	0.11	0.02	363.43	ppb
Selenium	78-2	-1.24	-0.03	-0.77	-0.68		ppb
Silicon	28-1	589.35	592.03	594.78	592.05	0.46	ppb
Silver	107-1	0.00	0.00	0.00	0.00	41.86	ppb
Silver	109-1	0.00	0.00	0.00	0.00	47.39	ppb
Sodium	23-2	15360.81	14968.33	15067.69	15132.27	1.35	ppb
Strontium	86-1	64642.71	64236.87	65815.79	64898.46	1.26	ppb
Strontium	88-1	64330.77	64914.16	65305.77	64850.23	0.76	ppb
Sulfur	34-1	16868.75	16660.92	17183.40	16904.36	1.56	ppb
Terbium	159-1				114		%
Terbium	159-2				109		%
Thallium	203-1	0.02	0.02	0.02	0.02	8.72	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	12.02	ppb
Tin	118-1	-0.16	-0.16	-0.15	-0.16		ppb
Titanium	47-1	0.21	0.21	0.20	0.20	1.73	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-05

Instrumnet Name :

P7

Client Sample ID :

E2A14

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:08:57

DataFile Name :

052SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.88	0.86	0.89	0.88	2.14	ppb
Vanadium	51-2	0.20	0.20	0.19	0.20	1.80	ppb
Yttrium	89-1				112		%
Yttrium	89-2				108		%
Zinc	66-2	2.39	2.27	2.09	2.25	6.70	ppb
Zirconium	90-1	0.02	0.02	0.03	0.03	12.29	ppb
Zirconium	91-1	0.04	0.03	0.03	0.03	18.82	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-06

Instrumnet Name :

P7

Client Sample ID :

E2A00

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:12:06

DataFile Name :

053SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.86	1.94	1.73	1.84	5.85	ppb
Antimony	121-1	0.06	0.07	0.08	0.07	9.36	ppb
Arsenic	75-2	1.50	1.49	1.60	1.53	3.94	ppb
Barium	135-1	89.92	92.61	94.30	92.27	2.39	ppb
Barium	137-1	90.17	94.05	95.69	93.30	3.04	ppb
Beryllium	9-1	-0.03	-0.04	-0.03	-0.03		ppb
Bismuth	209-1				115		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.02	-0.05	-0.02	-0.02		ppb
Cadmium	106-1	-0.54	-1.15	-0.99	-0.89		ppb
Cadmium	111-1	-0.04	-0.08	-0.07	-0.06		ppb
Calcium	43-1	77723.05	77359.75	79503.75	78195.52	1.47	ppb
Calcium	44-1	76179.06	77492.45	79294.42	77655.31	2.01	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.12	-0.10	-0.11	-0.11		ppb
Cobalt	59-2	0.09	0.10	0.10	0.10	5.19	ppb
Copper	63-2	0.92	0.92	0.93	0.92	0.57	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				118		%
Holmium	165-2				111		%
Indium	115-1				114		%
Indium	115-2				110		%
Iron	56-2	18.72	18.96	18.93	18.87	0.69	ppb
Iron	57-2	413.75	424.95	428.76	422.49	1.85	ppb
Iron	54-2	16.77	17.19	16.37	16.78	2.45	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-06 Instrumnet Name : P7
Client Sample ID : E2A00 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:12:06 DataFile Name : 053SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.05	0.05	0.06	0.05	13.64	ppb
Lead	207-1	0.03	0.03	0.04	0.03	10.49	ppb
Lead	208-1	0.04	0.04	0.05	0.04	10.05	ppb
Lithium	6-1				111		%
Magnesium	24-2	30780.86	31159.64	30609.13	30849.88	0.91	ppb
Manganese	55-2	3.43	3.35	3.41	3.40	1.20	ppb
Molybdenum	94-1	4.20	4.38	4.44	4.34	2.91	ppb
Molybdenum	95-1	5.10	5.17	5.31	5.19	2.08	ppb
Molybdenum	96-1	4.94	5.09	5.13	5.05	1.91	ppb
Molybdenum	97-1	5.03	5.16	5.25	5.15	2.12	ppb
Molybdenum	98-1	5.13	5.24	5.29	5.22	1.52	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.78	0.81	0.78	0.79	2.41	ppb
Phosphorus	31-2	9.59	9.51	5.23	8.11	30.78	ppb
Potassium	39-2	3921.64	3965.29	3883.26	3923.40	1.05	ppb
Rhodium	103-1				111		%
Rhodium	103-2				108		%
Scandium	45-1				111		%
Scandium	45-2				110		%
Selenium	82-1	0.19	0.35	0.31	0.28	28.18	ppb
Selenium	77-2	0.02	-0.06	0.02	-0.01		ppb
Selenium	78-2	-0.15	-0.69	-0.23	-0.35		ppb
Silicon	28-1	569.41	588.00	589.56	582.32	1.93	ppb
Silver	107-1	0.00	0.00	0.00	0.00	60.72	ppb
Silver	109-1	0.00	0.00	0.00	0.00	35.92	ppb
Sodium	23-2	15197.07	15224.43	15216.72	15212.74	0.09	ppb
Strontium	86-1	64398.52	66703.66	66559.67	65887.28	1.96	ppb
Strontium	88-1	63833.59	65768.10	66473.58	65358.43	2.09	ppb
Sulfur	34-1	15810.93	16226.47	16104.10	16047.17	1.33	ppb
Terbium	159-1				117		%
Terbium	159-2				111		%
Thallium	203-1	0.02	0.02	0.01	0.02	14.53	ppb
Thallium	205-1	0.02	0.02	0.01	0.01	13.14	ppb
Tin	118-1	-0.17	-0.17	-0.17	-0.17		ppb
Titanium	47-1	0.15	0.21	0.19	0.18	16.48	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-06

Instrumnet Name :

P7

Client Sample ID :

E2A00

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:12:06

DataFile Name :

053SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.88	0.89	0.91	0.89	1.80	ppb
Vanadium	51-2	0.18	0.19	0.19	0.19	3.82	ppb
Yttrium	89-1				115		%
Yttrium	89-2				110		%
Zinc	66-2	-3.70	-3.89	-3.74	-3.77		ppb
Zirconium	90-1	0.03	0.03	0.02	0.03	14.57	ppb
Zirconium	91-1	0.02	0.03	0.02	0.02	6.37	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-07

Instrumnet Name :

P7

Client Sample ID :

E2A02

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:15:16

DataFile Name :

054SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.37	1.15	1.20	1.24	9.56	ppb
Antimony	121-1	0.08	0.07	0.07	0.07	5.80	ppb
Arsenic	75-2	1.42	1.42	1.56	1.47	5.49	ppb
Barium	135-1	98.09	98.44	98.14	98.23	0.19	ppb
Barium	137-1	99.85	99.20	98.81	99.29	0.53	ppb
Beryllium	9-1	-0.03	-0.03	-0.02	-0.03		ppb
Bismuth	209-1				113		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.04	-0.01	0.02	0.02	142.24	ppb
Cadmium	106-1	-0.66	-0.43	-1.15	-0.75		ppb
Cadmium	111-1	-0.05	-0.03	-0.09	-0.05		ppb
Calcium	43-1	82766.98	82280.96	79571.35	81539.76	2.11	ppb
Calcium	44-1	80859.34	80800.69	79025.25	80228.43	1.30	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.07	0.06	0.03	0.05	39.95	ppb
Cobalt	59-2	0.10	0.11	0.11	0.11	4.41	ppb
Copper	63-2	1.40	1.47	1.45	1.44	2.59	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				115		%
Holmium	165-2				111		%
Indium	115-1				112		%
Indium	115-2				109		%
Iron	56-2	16.64	17.15	17.04	16.94	1.57	ppb
Iron	57-2	407.91	423.21	428.07	419.73	2.51	ppb
Iron	54-2	15.30	15.29	14.77	15.12	2.03	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-07 Instrumnet Name : P7
Client Sample ID : E2A02 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:15:16 DataFile Name : 054SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.12	0.13	0.13	0.13	4.12	ppb
Lead	207-1	0.12	0.12	0.11	0.12	3.29	ppb
Lead	208-1	0.12	0.12	0.12	0.12	0.89	ppb
Lithium	6-1				109		%
Magnesium	24-2	29968.38	30279.57	30200.96	30149.64	0.54	ppb
Manganese	55-2	1.61	1.65	1.60	1.62	1.72	ppb
Molybdenum	94-1	4.56	4.71	4.56	4.61	1.92	ppb
Molybdenum	95-1	5.43	5.63	5.48	5.51	1.90	ppb
Molybdenum	96-1	5.41	5.43	5.37	5.40	0.52	ppb
Molybdenum	97-1	5.50	5.61	5.58	5.56	1.04	ppb
Molybdenum	98-1	5.56	5.62	5.55	5.58	0.66	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.83	0.85	0.86	0.85	1.60	ppb
Phosphorus	31-2	2.28	8.98	11.34	7.54	62.36	ppb
Potassium	39-2	3951.75	3986.12	4094.15	4010.67	1.85	ppb
Rhodium	103-1				110		%
Rhodium	103-2				108		%
Scandium	45-1				109		%
Scandium	45-2				110		%
Selenium	82-1	0.52	0.12	0.25	0.30	70.18	ppb
Selenium	77-2	0.02	0.11	-0.06	0.02	388.82	ppb
Selenium	78-2	-0.87	-0.48	-0.46	-0.61		ppb
Silicon	28-1	620.73	618.43	610.80	616.65	0.84	ppb
Silver	107-1	0.00	0.00	0.00	0.00	116.40	ppb
Silver	109-1	0.00	0.00	0.00	0.00	50.50	ppb
Sodium	23-2	15246.98	15469.32	15439.71	15385.34	0.78	ppb
Strontium	86-1	69310.12	70827.12	69437.47	69858.24	1.20	ppb
Strontium	88-1	69601.83	71037.18	70148.81	70262.61	1.03	ppb
Sulfur	34-1	18120.10	17958.12	17571.31	17883.18	1.58	ppb
Terbium	159-1				114		%
Terbium	159-2				112		%
Thallium	203-1	0.01	0.01	0.01	0.01	25.66	ppb
Thallium	205-1	0.01	0.02	0.02	0.02	8.05	ppb
Tin	118-1	-0.21	-0.20	-0.21	-0.20		ppb
Titanium	47-1	0.18	0.19	0.20	0.19	4.65	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-07

Instrumnet Name :

P7

Client Sample ID :

E2A02

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:15:16

DataFile Name :

054SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.92	0.93	0.92	0.92	0.82	ppb
Vanadium	51-2	0.19	0.18	0.19	0.18	3.17	ppb
Yttrium	89-1				113		%
Yttrium	89-2				111		%
Zinc	66-2	-3.21	-3.14	-3.02	-3.12		ppb
Zirconium	90-1	0.02	0.03	0.03	0.03	12.59	ppb
Zirconium	91-1	0.03	0.03	0.02	0.03	11.37	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-08 Instrumnet Name : P7
Client Sample ID : E2A02D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:18:24 DataFile Name : 055SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.61	1.58	1.42	1.54	6.69	ppb
Antimony	121-1	0.07	0.07	0.07	0.07	0.70	ppb
Arsenic	75-2	1.41	1.49	1.46	1.45	2.81	ppb
Barium	135-1	96.47	97.44	96.60	96.83	0.54	ppb
Barium	137-1	97.27	99.39	98.53	98.39	1.08	ppb
Beryllium	9-1	-0.04	-0.03	-0.02	-0.03		ppb
Bismuth	209-1				113		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.03	0.05	0.03	0.04	33.66	ppb
Cadmium	106-1	-0.38	-1.16	-1.75	-1.10		ppb
Cadmium	111-1	-0.02	-0.08	-0.13	-0.08		ppb
Calcium	43-1	80385.82	82958.67	81047.72	81464.07	1.64	ppb
Calcium	44-1	79558.96	81127.43	80690.72	80459.04	1.01	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.21	0.23	0.17	0.20	15.16	ppb
Cobalt	59-2	0.10	0.10	0.10	0.10	2.17	ppb
Copper	63-2	0.80	0.81	0.80	0.80	0.49	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				115		%
Holmium	165-2				111		%
Indium	115-1				112		%
Indium	115-2				108		%
Iron	56-2	22.04	21.33	21.37	21.58	1.85	ppb
Iron	57-2	427.45	432.67	434.25	431.46	0.82	ppb
Iron	54-2	21.02	20.98	20.37	20.79	1.76	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-08 Instrumnet Name : P7
Client Sample ID : E2A02D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:18:24 DataFile Name : 055SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.03	0.04	0.04	0.04	18.20	ppb
Lead	207-1	0.02	0.04	0.03	0.03	39.49	ppb
Lead	208-1	0.03	0.04	0.04	0.03	20.76	ppb
Lithium	6-1				108		%
Magnesium	24-2	31078.42	30679.46	30773.32	30843.73	0.68	ppb
Manganese	55-2	2.13	2.19	2.20	2.18	1.83	ppb
Molybdenum	94-1	4.55	4.66	4.64	4.62	1.30	ppb
Molybdenum	95-1	5.58	5.57	5.57	5.57	0.08	ppb
Molybdenum	96-1	5.35	5.51	5.47	5.44	1.55	ppb
Molybdenum	97-1	5.51	5.74	5.69	5.65	2.10	ppb
Molybdenum	98-1	5.56	5.67	5.61	5.61	0.96	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.02	1.00	1.01	1.01	1.30	ppb
Phosphorus	31-2	3.27	6.25	5.42	4.98	30.84	ppb
Potassium	39-2	4134.69	4007.54	4069.87	4070.70	1.56	ppb
Rhodium	103-1				110		%
Rhodium	103-2				108		%
Scandium	45-1				110		%
Scandium	45-2				108		%
Selenium	82-1	0.32	0.08	0.00	0.13	126.99	ppb
Selenium	77-2	0.02	0.28	0.02	0.11	136.91	ppb
Selenium	78-2	-0.99	-0.98	-0.23	-0.73		ppb
Silicon	28-1	602.20	612.98	610.95	608.71	0.94	ppb
Silver	107-1	0.00	0.00	0.00	0.00	91.89	ppb
Silver	109-1	0.00	0.00	0.00	0.00	20.28	ppb
Sodium	23-2	15999.49	15599.62	15761.78	15786.96	1.27	ppb
Strontium	86-1	69467.21	69899.72	70337.27	69901.40	0.62	ppb
Strontium	88-1	69888.88	70628.52	70755.39	70424.26	0.66	ppb
Sulfur	34-1	17744.97	18371.18	17662.07	17926.07	2.16	ppb
Terbium	159-1				116		%
Terbium	159-2				111		%
Thallium	203-1	0.02	0.01	0.01	0.02	17.59	ppb
Thallium	205-1	0.02	0.02	0.01	0.02	16.35	ppb
Tin	118-1	-0.18	-0.17	-0.19	-0.18		ppb
Titanium	47-1	0.22	0.21	0.21	0.21	2.39	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-08

Instrumnet Name :

P7

Client Sample ID :

E2A02D

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:18:24

DataFile Name :

055SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.92	0.96	0.93	0.94	2.27	ppb
Vanadium	51-2	0.19	0.20	0.18	0.19	3.92	ppb
Yttrium	89-1				113		%
Yttrium	89-2				110		%
Zinc	66-2	-1.45	-1.20	-1.39	-1.35		ppb
Zirconium	90-1	0.02	0.03	0.03	0.02	22.27	ppb
Zirconium	91-1	0.02	0.02	0.03	0.02	20.15	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-07LX5 Instrumnet Name : P7
Client Sample ID : E2A02L Dilution Factor : 5
Date & Time Acquired : 2024-11-22 16:21:34 DataFile Name : 056SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.74	0.83	0.92	0.83	10.53	ppb
Antimony	121-1	0.01	0.01	0.02	0.01	22.94	ppb
Arsenic	75-2	0.28	0.28	0.28	0.28	1.11	ppb
Barium	135-1	18.86	18.82	18.86	18.85	0.11	ppb
Barium	137-1	19.26	19.29	19.20	19.25	0.23	ppb
Beryllium	9-1	-0.04	-0.03	-0.03	-0.03		ppb
Bismuth	209-1				109		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.03	-0.04	-0.01	-0.02		ppb
Cadmium	106-1	-0.67	-1.10	-1.59	-1.12		ppb
Cadmium	111-1	-0.05	-0.08	-0.11	-0.08		ppb
Calcium	43-1	16101.51	16260.29	15934.78	16098.86	1.01	ppb
Calcium	44-1	15264.06	15441.98	15395.10	15367.05	0.60	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.00	0.00	0.01	0.00	143.67	ppb
Cobalt	59-2	0.01	0.01	0.00	0.01	33.81	ppb
Copper	63-2	0.31	0.28	0.28	0.29	5.98	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				110		%
Holmium	165-2				107		%
Indium	115-1				107		%
Indium	115-2				106		%
Iron	56-2	3.23	3.24	3.00	3.15	4.30	ppb
Iron	57-2	80.41	82.67	84.73	82.60	2.62	ppb
Iron	54-2	2.32	3.17	2.43	2.64	17.43	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-07LX5 Instrumnet Name : P7
Client Sample ID : E2A02L Dilution Factor : 5
Date & Time Acquired : 2024-11-22 16:21:34 DataFile Name : 056SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.02	0.02	0.02	0.02	5.91	ppb
Lead	207-1	0.02	0.02	0.02	0.02	13.43	ppb
Lead	208-1	0.02	0.02	0.02	0.02	8.38	ppb
Lithium	6-1				105		%
Magnesium	24-2	6014.39	5983.98	5970.62	5989.66	0.37	ppb
Manganese	55-2	0.37	0.40	0.34	0.37	7.65	ppb
Molybdenum	94-1	0.89	0.92	0.92	0.91	2.09	ppb
Molybdenum	95-1	1.08	1.10	1.04	1.07	2.78	ppb
Molybdenum	96-1	1.02	1.04	1.05	1.04	1.79	ppb
Molybdenum	97-1	1.07	1.06	1.08	1.07	0.93	ppb
Molybdenum	98-1	1.08	1.08	1.06	1.07	1.27	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.16	0.16	0.15	0.16	4.56	ppb
Phosphorus	31-2	-15.07	-16.57	-13.01	-14.88		ppb
Potassium	39-2	822.56	825.96	808.97	819.16	1.10	ppb
Rhodium	103-1				107		%
Rhodium	103-2				107		%
Scandium	45-1				105		%
Scandium	45-2				105		%
Selenium	82-1	0.48	-0.03	-0.15	0.10	331.79	ppb
Selenium	77-2	-0.06	-0.06	0.03	-0.03		ppb
Selenium	78-2	-0.35	-0.34	-0.94	-0.55		ppb
Silicon	28-1	120.15	121.14	118.55	119.95	1.09	ppb
Silver	107-1	0.00	0.00	0.00	0.00	76.03	ppb
Silver	109-1	0.00	0.00	0.00	0.00	94.75	ppb
Sodium	23-2	3028.78	3099.33	3000.75	3042.95	1.67	ppb
Strontium	86-1	13690.47	14120.98	13691.92	13834.45	1.79	ppb
Strontium	88-1	13593.51	13802.42	13808.92	13734.95	0.89	ppb
Sulfur	34-1	3324.75	3308.06	3213.23	3282.01	1.83	ppb
Terbium	159-1				110		%
Terbium	159-2				109		%
Thallium	203-1	0.01	0.01	0.01	0.01	15.19	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	24.71	ppb
Tin	118-1	-0.02	-0.04	-0.03	-0.03		ppb
Titanium	47-1	0.03	0.02	0.02	0.02	27.90	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-07LX5

Instrumnet Name :

P7

Client Sample ID :

E2A02L

Dilution Factor :

5

Date & Time Acquired :

2024-11-22 16:21:34

DataFile Name :

056SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.18	0.17	0.17	0.17	2.47	ppb
Vanadium	51-2	0.05	0.03	0.03	0.04	18.25	ppb
Yttrium	89-1				107		%
Yttrium	89-2				106		%
Zinc	66-2	-0.53	-0.51	-0.63	-0.56		ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	19.64	ppb
Zirconium	91-1	0.01	0.01	0.02	0.01	44.17	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4878-09Instrumnet Name :P7

Client Sample ID :E2A02SDilution Factor :1

Date & Time Acquired :2024-11-22 16:24:43DataFile Name :057SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1815.65	1798.61	1859.04	1824.43	1.71	ppb
Antimony	121-1	103.73	103.81	104.49	104.01	0.40	ppb
Arsenic	75-2	42.55	43.18	43.20	42.98	0.86	ppb
Barium	135-1	2093.17	2085.89	2091.21	2090.09	0.18	ppb
Barium	137-1	2096.37	2096.80	2105.33	2099.50	0.24	ppb
Beryllium	9-1	48.86	49.16	49.83	49.28	1.01	ppb
Bismuth	209-1				116		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	46.03	45.77	46.11	45.97	0.38	ppb
Cadmium	106-1	44.49	44.86	44.78	44.71	0.44	ppb
Cadmium	111-1	51.99	52.43	52.54	52.32	0.55	ppb
Calcium	43-1	78123.70	77990.32	79493.58	78535.87	1.06	ppb
Calcium	44-1	76802.62	77348.51	78231.84	77460.99	0.93	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	206.18	204.22	209.30	206.56	1.24	ppb
Cobalt	59-2	510.67	503.68	517.10	510.48	1.32	ppb
Copper	63-2	244.52	240.21	248.37	244.37	1.67	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				118		%
Holmium	165-2				112		%
Indium	115-1				113		%
Indium	115-2				108		%
Iron	56-2	1053.39	1046.17	1066.02	1055.19	0.95	ppb
Iron	57-2	1465.85	1466.98	1496.76	1476.53	1.19	ppb
Iron	54-2	1240.37	1230.14	1258.37	1242.96	1.15	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-09 Instrumnet Name : P7
Client Sample ID : E2A02S Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:24:43 DataFile Name : 057SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	20.52	20.60	20.75	20.62	0.56	ppb
Lead	207-1	19.91	20.10	20.08	20.03	0.52	ppb
Lead	208-1	20.18	20.33	20.39	20.30	0.55	ppb
Lithium	6-1				108		%
Magnesium	24-2	29035.40	28998.34	30023.15	29352.30	1.98	ppb
Manganese	55-2	498.87	490.06	500.30	496.41	1.12	ppb
Molybdenum	94-1	4.41	4.48	4.56	4.48	1.68	ppb
Molybdenum	95-1	5.27	5.26	5.41	5.31	1.61	ppb
Molybdenum	96-1	5.20	5.22	5.38	5.27	1.92	ppb
Molybdenum	97-1	5.27	5.37	5.49	5.38	2.05	ppb
Molybdenum	98-1	5.31	5.36	5.48	5.38	1.62	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	512.11	513.17	522.59	515.96	1.12	ppb
Phosphorus	31-2	8.49	9.99	14.47	10.98	28.31	ppb
Potassium	39-2	3825.90	3831.64	3891.29	3849.61	0.94	ppb
Rhodium	103-1				110		%
Rhodium	103-2				107		%
Scandium	45-1				110		%
Scandium	45-2				109		%
Selenium	82-1	108.81	107.00	110.69	108.83	1.70	ppb
Selenium	77-2	106.92	112.98	109.23	109.71	2.79	ppb
Selenium	78-2	110.17	110.35	107.33	109.28	1.55	ppb
Silicon	28-1	596.52	589.77	607.92	598.07	1.53	ppb
Silver	107-1	51.22	51.67	51.64	51.51	0.49	ppb
Silver	109-1	50.75	51.35	51.66	51.25	0.90	ppb
Sodium	23-2	14980.02	14856.82	15476.40	15104.41	2.17	ppb
Strontium	86-1	67841.15	67079.02	68000.83	67640.33	0.73	ppb
Strontium	88-1	67329.11	66997.09	68342.83	67556.35	1.04	ppb
Sulfur	34-1	17563.49	16795.75	17525.19	17294.81	2.50	ppb
Terbium	159-1				118		%
Terbium	159-2				113		%
Thallium	203-1	49.71	50.46	50.78	50.31	1.09	ppb
Thallium	205-1	51.04	50.48	50.63	50.72	0.57	ppb
Tin	118-1	-0.09	-0.10	-0.10	-0.10		ppb
Titanium	47-1	0.22	0.24	0.22	0.23	4.50	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-09

Instrumnet Name :

P7

Client Sample ID :

E2A02S

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:24:43

DataFile Name :

057SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.89	0.91	0.91	0.90	1.17	ppb
Vanadium	51-2	502.26	494.92	503.44	500.21	0.92	ppb
Yttrium	89-1				114		%
Yttrium	89-2				109		%
Zinc	66-2	515.32	512.86	525.00	517.73	1.24	ppb
Zirconium	90-1	0.02	0.02	0.03	0.02	15.85	ppb
Zirconium	91-1	0.04	0.03	0.04	0.04	13.75	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-10 Instrumnet Name : P7
Client Sample ID : E2A04 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:27:39 DataFile Name : 058SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.38	1.42	1.51	1.43	4.77	ppb
Antimony	121-1	0.08	0.08	0.09	0.08	3.13	ppb
Arsenic	75-2	1.58	1.47	1.53	1.53	3.75	ppb
Barium	135-1	96.23	99.47	109.78	101.83	6.95	ppb
Barium	137-1	97.30	101.02	111.63	103.32	7.20	ppb
Beryllium	9-1	-0.03	-0.03	-0.01	-0.02		ppb
Bismuth	209-1				111		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.03	-0.02	0.05	0.00		ppb
Cadmium	106-1	-0.19	-1.45	-0.64	-0.76		ppb
Cadmium	111-1	-0.01	-0.10	-0.04	-0.05		ppb
Calcium	43-1	78752.57	81702.42	90927.12	83794.04	7.58	ppb
Calcium	44-1	77867.23	81647.46	89421.62	82978.77	7.10	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.07	-0.06	-0.06	-0.06		ppb
Cobalt	59-2	0.12	0.12	0.12	0.12	1.02	ppb
Copper	63-2	1.23	1.21	1.25	1.23	1.87	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				112		%
Holmium	165-2				110		%
Indium	115-1				108		%
Indium	115-2				108		%
Iron	56-2	17.67	17.28	17.83	17.59	1.62	ppb
Iron	57-2	420.27	419.09	433.09	424.15	1.83	ppb
Iron	54-2	15.83	15.27	15.17	15.42	2.29	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-10 Instrumnet Name : P7
Client Sample ID : E2A04 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:27:39 DataFile Name : 058SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.04	0.04	0.07	0.05	38.27	ppb
Lead	207-1	0.03	0.04	0.06	0.04	33.45	ppb
Lead	208-1	0.04	0.04	0.06	0.05	29.96	ppb
Lithium	6-1				105		%
Magnesium	24-2	31331.60	30211.70	31384.46	30975.92	2.14	ppb
Manganese	55-2	2.82	2.83	2.92	2.86	1.99	ppb
Molybdenum	94-1	4.56	4.76	5.17	4.83	6.47	ppb
Molybdenum	95-1	5.40	5.85	6.21	5.82	7.01	ppb
Molybdenum	96-1	5.31	5.67	6.19	5.73	7.73	ppb
Molybdenum	97-1	5.58	5.82	6.38	5.92	6.91	ppb
Molybdenum	98-1	5.49	5.84	6.32	5.88	7.02	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.91	0.88	0.89	0.89	1.68	ppb
Phosphorus	31-2	6.51	4.38	6.54	5.81	21.28	ppb
Potassium	39-2	4107.43	4069.36	4131.14	4102.64	0.76	ppb
Rhodium	103-1				106		%
Rhodium	103-2				106		%
Scandium	45-1				105		%
Scandium	45-2				107		%
Selenium	82-1	0.26	0.23	0.22	0.24	8.96	ppb
Selenium	77-2	0.30	0.02	-0.06	0.09	220.07	ppb
Selenium	78-2	-1.25	-0.91	0.00	-0.72		ppb
Silicon	28-1	598.32	624.86	688.34	637.17	7.26	ppb
Silver	107-1	0.01	0.01	0.01	0.01	22.84	ppb
Silver	109-1	0.01	0.01	0.01	0.01	7.80	ppb
Sodium	23-2	16110.65	15661.43	16148.14	15973.41	1.70	ppb
Strontium	86-1	69943.46	74396.12	81404.15	75247.91	7.68	ppb
Strontium	88-1	70027.84	74542.46	80612.96	75061.09	7.08	ppb
Sulfur	34-1	17232.31	18159.82	19895.97	18429.37	7.34	ppb
Terbium	159-1				111		%
Terbium	159-2				111		%
Thallium	203-1	0.03	0.03	0.03	0.03	7.39	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	2.26	ppb
Tin	118-1	-0.18	-0.18	-0.16	-0.18		ppb
Titanium	47-1	0.20	0.22	0.25	0.22	11.65	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-10

Instrumnet Name :

P7

Client Sample ID :

E2A04

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:27:39

DataFile Name :

058SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.89	0.94	1.04	0.96	8.23	ppb
Vanadium	51-2	0.23	0.24	0.23	0.23	0.90	ppb
Yttrium	89-1				108		%
Yttrium	89-2				108		%
Zinc	66-2	-3.44	-3.39	-3.28	-3.37		ppb
Zirconium	90-1	0.03	0.03	0.03	0.03	3.17	ppb
Zirconium	91-1	0.02	0.03	0.03	0.03	13.85	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-11 Instrumnet Name : P7
Client Sample ID : E2A06 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:30:47 DataFile Name : 059SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2.76	2.01	2.23	2.33	16.49	ppb
Antimony	121-1	0.07	0.07	0.07	0.07	1.13	ppb
Arsenic	75-2	1.55	1.47	1.44	1.49	3.88	ppb
Barium	135-1	94.77	94.92	96.33	95.34	0.91	ppb
Barium	137-1	96.04	95.79	97.63	96.49	1.04	ppb
Beryllium	9-1	-0.03	-0.02	-0.04	-0.03		ppb
Bismuth	209-1				115		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.07	0.05	-0.01	0.04	109.30	ppb
Cadmium	106-1	-0.28	-1.55	-0.70	-0.84		ppb
Cadmium	111-1	-0.03	-0.12	-0.05	-0.07		ppb
Calcium	43-1	77756.88	79008.05	78671.22	78478.71	0.82	ppb
Calcium	44-1	76572.80	78458.04	78270.33	77767.06	1.34	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.10	-0.08	-0.13	-0.10		ppb
Cobalt	59-2	0.11	0.10	0.11	0.11	3.62	ppb
Copper	63-2	1.45	1.42	1.40	1.43	1.84	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				116		%
Holmium	165-2				111		%
Indium	115-1				113		%
Indium	115-2				108		%
Iron	56-2	15.31	14.99	14.61	14.97	2.35	ppb
Iron	57-2	412.46	410.84	408.81	410.70	0.45	ppb
Iron	54-2	12.41	12.48	13.05	12.64	2.76	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-11 Instrumnet Name : P7
Client Sample ID : E2A06 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:30:47 DataFile Name : 059SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.00	-0.01	0.00	0.00		ppb
Lead	207-1	-0.01	-0.01	0.00	-0.01		ppb
Lead	208-1	-0.01	-0.01	0.00	0.00		ppb
Lithium	6-1				109		%
Magnesium	24-2	30680.89	30347.49	29534.10	30187.50	1.95	ppb
Manganese	55-2	1.53	1.48	1.45	1.49	2.76	ppb
Molybdenum	94-1	4.54	4.57	4.57	4.56	0.42	ppb
Molybdenum	95-1	5.37	5.42	5.53	5.44	1.51	ppb
Molybdenum	96-1	5.37	5.37	5.38	5.37	0.09	ppb
Molybdenum	97-1	5.54	5.58	5.58	5.57	0.39	ppb
Molybdenum	98-1	5.57	5.61	5.63	5.61	0.56	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.94	0.91	0.86	0.90	4.10	ppb
Phosphorus	31-2	7.58	7.89	10.70	8.72	19.72	ppb
Potassium	39-2	4194.19	4063.44	4022.38	4093.34	2.19	ppb
Rhodium	103-1				110		%
Rhodium	103-2				108		%
Scandium	45-1				110		%
Scandium	45-2				108		%
Selenium	82-1	0.34	0.00	-0.12	0.07	333.07	ppb
Selenium	77-2	0.37	0.02	0.11	0.17	106.57	ppb
Selenium	78-2	-0.19	0.00	-0.57	-0.25		ppb
Silicon	28-1	591.29	604.15	618.18	604.54	2.23	ppb
Silver	107-1	0.00	0.00	0.01	0.00	14.39	ppb
Silver	109-1	0.00	0.00	0.00	0.00	23.04	ppb
Sodium	23-2	16323.61	16143.57	15602.69	16023.29	2.34	ppb
Strontium	86-1	71094.17	71118.83	71088.96	71100.65	0.02	ppb
Strontium	88-1	70856.18	70760.42	71410.18	71008.93	0.49	ppb
Sulfur	34-1	16906.43	17115.91	17241.78	17088.04	0.99	ppb
Terbium	159-1				116		%
Terbium	159-2				112		%
Thallium	203-1	0.02	0.01	0.02	0.02	13.31	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	6.62	ppb
Tin	118-1	-0.19	-0.20	-0.20	-0.20		ppb
Titanium	47-1	0.18	0.19	0.17	0.18	5.07	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-11

Instrumnet Name :

P7

Client Sample ID :

E2A06

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:30:47

DataFile Name :

059SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.90	0.88	0.90	0.89	1.05	ppb
Vanadium	51-2	0.20	0.19	0.21	0.20	4.83	ppb
Yttrium	89-1				113		%
Yttrium	89-2				109		%
Zinc	66-2	-3.67	-3.65	-3.69	-3.67		ppb
Zirconium	90-1	0.03	0.03	0.03	0.03	18.09	ppb
Zirconium	91-1	0.02	0.03	0.03	0.02	15.89	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-12

Instrumnet Name :

P7

Client Sample ID :

E2A08

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:33:59

DataFile Name :

060SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.45	1.21	1.23	1.30	10.21	ppb
Antimony	121-1	0.07	0.07	0.07	0.07	1.98	ppb
Arsenic	75-2	1.55	1.46	1.46	1.49	3.48	ppb
Barium	135-1	97.83	96.70	97.66	97.40	0.62	ppb
Barium	137-1	99.15	98.32	98.81	98.76	0.42	ppb
Beryllium	9-1	-0.03	-0.03	-0.02	-0.03		ppb
Bismuth	209-1				113		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.02	-0.02	-0.02	-0.01		ppb
Cadmium	106-1	-0.71	-0.83	-0.93	-0.82		ppb
Cadmium	111-1	-0.05	-0.06	-0.07	-0.06		ppb
Calcium	43-1	81896.94	80604.89	81492.28	81331.37	0.81	ppb
Calcium	44-1	80082.64	80052.18	80379.98	80171.60	0.23	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.12	-0.15	-0.14	-0.13		ppb
Cobalt	59-2	0.11	0.11	0.11	0.11	0.59	ppb
Copper	63-2	1.26	1.23	1.27	1.25	1.77	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				115		%
Holmium	165-2				110		%
Indium	115-1				111		%
Indium	115-2				108		%
Iron	56-2	14.62	14.38	14.35	14.45	1.03	ppb
Iron	57-2	419.19	423.37	423.55	422.04	0.58	ppb
Iron	54-2	12.47	12.16	12.45	12.36	1.42	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-12 Instrumnet Name : P7
Client Sample ID : E2A08 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:33:59 DataFile Name : 060SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.01	0.00	0.01	0.00	533.34	ppb
Lead	207-1	0.00	0.00	0.00	0.00		ppb
Lead	208-1	0.00	0.00	0.00	0.00	174.98	ppb
Lithium	6-1				108		%
Magnesium	24-2	30855.14	30888.39	30263.41	30668.98	1.15	ppb
Manganese	55-2	2.83	2.81	2.87	2.84	0.96	ppb
Molybdenum	94-1	4.52	4.59	4.49	4.53	1.17	ppb
Molybdenum	95-1	5.42	5.44	5.40	5.42	0.41	ppb
Molybdenum	96-1	5.30	5.30	5.37	5.32	0.74	ppb
Molybdenum	97-1	5.54	5.55	5.41	5.50	1.46	ppb
Molybdenum	98-1	5.48	5.49	5.35	5.44	1.49	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.90	0.82	0.89	0.87	4.85	ppb
Phosphorus	31-2	10.63	11.70	10.63	10.99	5.61	ppb
Potassium	39-2	4176.10	4074.78	4118.49	4123.12	1.23	ppb
Rhodium	103-1				109		%
Rhodium	103-2				107		%
Scandium	45-1				108		%
Scandium	45-2				108		%
Selenium	82-1	0.18	0.10	-0.26	0.01	4673.27	ppb
Selenium	77-2	0.11	0.11	0.20	0.14	35.75	ppb
Selenium	78-2	-0.39	-0.52	-0.83	-0.58		ppb
Silicon	28-1	632.34	609.74	624.08	622.05	1.84	ppb
Silver	107-1	0.00	0.00	0.00	0.00	106.35	ppb
Silver	109-1	0.00	0.00	0.00	0.00	23.23	ppb
Sodium	23-2	16742.03	16658.25	16408.19	16602.82	1.05	ppb
Strontium	86-1	68201.42	68622.39	67686.07	68169.96	0.69	ppb
Strontium	88-1	67882.02	68473.05	67717.97	68024.35	0.58	ppb
Sulfur	34-1	18139.52	17564.00	17753.13	17818.89	1.65	ppb
Terbium	159-1				115		%
Terbium	159-2				111		%
Thallium	203-1	0.02	0.02	0.01	0.02	25.68	ppb
Thallium	205-1	0.02	0.01	0.02	0.02	13.43	ppb
Tin	118-1	-0.18	-0.17	-0.16	-0.17		ppb
Titanium	47-1	0.23	0.25	0.19	0.22	12.74	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-12

Instrumnet Name :

P7

Client Sample ID :

E2A08

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:33:59

DataFile Name :

060SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.88	0.88	0.88	0.88	0.50	ppb
Vanadium	51-2	0.18	0.20	0.20	0.19	4.74	ppb
Yttrium	89-1				112		%
Yttrium	89-2				110		%
Zinc	66-2	-3.83	-3.89	-3.94	-3.89		ppb
Zirconium	90-1	0.02	0.02	0.03	0.02	16.07	ppb
Zirconium	91-1	0.02	0.03	0.04	0.03	28.80	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-13 Instrumnet Name : P7
Client Sample ID : E2A10 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:37:08 DataFile Name : 061SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.76	1.79	1.69	1.75	3.03	ppb
Antimony	121-1	0.07	0.07	0.07	0.07	3.00	ppb
Arsenic	75-2	1.52	1.59	1.53	1.55	2.43	ppb
Barium	135-1	95.98	95.96	94.95	95.63	0.62	ppb
Barium	137-1	96.45	96.57	95.69	96.24	0.50	ppb
Beryllium	9-1	-0.01	-0.03	-0.01	-0.02		ppb
Bismuth	209-1				113		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.02	0.03	0.01	0.01	390.05	ppb
Cadmium	106-1	0.24	-0.38	-1.28	-0.47		ppb
Cadmium	111-1	0.02	-0.02	-0.09	-0.03		ppb
Calcium	43-1	77645.28	77630.42	79599.93	78291.88	1.45	ppb
Calcium	44-1	77987.71	77211.62	77832.36	77677.23	0.53	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.30	0.30	0.28	0.29	4.43	ppb
Cobalt	59-2	0.13	0.13	0.12	0.12	4.87	ppb
Copper	63-2	1.39	1.34	1.34	1.36	2.05	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				116		%
Holmium	165-2				109		%
Indium	115-1				112		%
Indium	115-2				106		%
Iron	56-2	20.51	20.09	19.65	20.08	2.13	ppb
Iron	57-2	413.12	420.50	417.25	416.96	0.89	ppb
Iron	54-2	18.72	17.46	17.90	18.03	3.53	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-13 Instrumnet Name : P7
Client Sample ID : E2A10 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:37:08 DataFile Name : 061SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.02	0.03	0.02	0.02	15.34	ppb
Lead	207-1	0.02	0.02	0.01	0.02	26.13	ppb
Lead	208-1	0.02	0.02	0.02	0.02	15.87	ppb
Lithium	6-1				109		%
Magnesium	24-2	30229.23	29993.07	29687.67	29969.99	0.91	ppb
Manganese	55-2	3.22	3.14	3.05	3.14	2.68	ppb
Molybdenum	94-1	4.45	4.52	4.54	4.50	1.08	ppb
Molybdenum	95-1	5.26	5.48	5.33	5.36	2.05	ppb
Molybdenum	96-1	5.19	5.28	5.29	5.25	1.03	ppb
Molybdenum	97-1	5.43	5.54	5.34	5.44	1.76	ppb
Molybdenum	98-1	5.44	5.43	5.41	5.43	0.27	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.51	1.55	1.50	1.52	1.87	ppb
Phosphorus	31-2	9.49	8.00	7.82	8.44	10.88	ppb
Potassium	39-2	4067.70	4071.51	3999.87	4046.36	1.00	ppb
Rhodium	103-1				109		%
Rhodium	103-2				105		%
Scandium	45-1				109		%
Scandium	45-2				107		%
Selenium	82-1	0.01	0.16	-0.23	-0.02		ppb
Selenium	77-2	0.21	0.03	-0.06	0.06	247.84	ppb
Selenium	78-2	-0.73	-0.46	-0.51	-0.57		ppb
Silicon	28-1	592.71	599.98	611.83	601.51	1.60	ppb
Silver	107-1	0.00	0.00	0.00	0.00	14.70	ppb
Silver	109-1	0.00	0.00	0.00	0.00	53.73	ppb
Sodium	23-2	15981.16	15979.12	15752.95	15904.41	0.82	ppb
Strontium	86-1	67182.03	68624.66	67887.91	67898.20	1.06	ppb
Strontium	88-1	67607.27	68346.54	67545.07	67832.96	0.66	ppb
Sulfur	34-1	17417.67	17059.82	17700.69	17392.73	1.85	ppb
Terbium	159-1				115		%
Terbium	159-2				109		%
Thallium	203-1	0.01	0.02	0.01	0.01	30.38	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	8.11	ppb
Tin	118-1	-0.14	-0.13	-0.16	-0.14		ppb
Titanium	47-1	0.19	0.23	0.20	0.21	9.36	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-13

Instrumnet Name :

P7

Client Sample ID :

E2A10

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:37:08

DataFile Name :

061SMPL.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.89	0.87	0.90	0.89	1.69	ppb
Vanadium	51-2	0.22	0.22	0.21	0.22	3.68	ppb
Yttrium	89-1				113		%
Yttrium	89-2				107		%
Zinc	66-2	-3.14	-3.40	-3.30	-3.28		ppb
Zirconium	90-1	0.03	0.03	0.03	0.03	10.68	ppb
Zirconium	91-1	0.03	0.02	0.02	0.02	13.33	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :CCV003Instrumnet Name :P7

Client Sample ID :CCV003Dilution Factor :1

Date & Time Acquired :2024-11-22 16:43:37DataFile Name :063CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	47423.84	48663.88	47659.86	47915.86	1.37	ppb
Antimony	121-1	487.43	503.99	502.14	497.85	1.82	ppb
Arsenic	75-2	515.01	513.51	507.18	511.90	0.81	ppb
Barium	135-1	2392.72	2481.90	2518.56	2464.39	2.63	ppb
Barium	137-1	2393.14	2489.63	2501.59	2461.45	2.42	ppb
Beryllium	9-1	466.93	488.70	473.61	476.42	2.34	ppb
Bismuth	209-1				102		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	487.68	503.25	511.68	500.87	2.43	ppb
Cadmium	106-1	488.51	509.14	512.46	503.37	2.58	ppb
Cadmium	111-1	479.10	503.69	510.54	497.78	3.32	ppb
Calcium	43-1	237686.92	247570.50	247891.01	244382.81	2.37	ppb
Calcium	44-1	236673.22	247187.88	244659.46	242840.19	2.26	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	503.71	496.29	493.65	497.89	1.05	ppb
Cobalt	59-2	510.97	512.93	511.08	511.66	0.21	ppb
Copper	63-2	5037.44	5008.95	5007.86	5018.08	0.33	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				111		%
Holmium	165-2				105		%
Indium	115-1				102		%
Indium	115-2				100		%
Iron	56-2	124692.66	123845.15	124748.79	124428.87	0.41	ppb
Iron	57-2	124420.27	124389.68	126060.08	124956.67	0.76	ppb
Iron	54-2	125178.30	123750.20	126648.76	125192.42	1.16	ppb
Krypton	83-1						cps

LB Number :	LB133596	Operator :	Jaswal
Lab Sample ID :	CCV003	Instrumnet Name :	P7
Client Sample ID :	CCV003	Dilution Factor :	1
Date & Time Acquired :	2024-11-22 16:43:37	DataFile Name :	063CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2454.53	2570.16	2533.87	2519.52	2.35	ppb
Lead	207-1	2425.39	2555.70	2507.30	2496.13	2.64	ppb
Lead	208-1	2436.50	2552.48	2537.52	2508.83	2.51	ppb
Lithium	6-1				102		%
Magnesium	24-2	249026.88	251408.02	246726.68	249053.86	0.94	ppb
Manganese	55-2	4906.79	4909.58	4913.76	4910.04	0.07	ppb
Molybdenum	94-1	4844.68	4987.82	5068.18	4966.89	2.28	ppb
Molybdenum	95-1	4839.77	4980.89	5037.96	4952.87	2.06	ppb
Molybdenum	96-1	4815.42	4956.89	5019.25	4930.52	2.12	ppb
Molybdenum	97-1	4822.14	4923.62	5072.78	4939.51	2.55	ppb
Molybdenum	98-1	4791.90	4938.65	5039.52	4923.36	2.53	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	514.81	510.17	504.22	509.74	1.04	ppb
Phosphorus	31-2	9817.02	9839.01	9842.64	9832.89	0.14	ppb
Potassium	39-2	121261.12	121389.62	122094.64	121581.79	0.37	ppb
Rhodium	103-1				98		%
Rhodium	103-2				98		%
Scandium	45-1				103		%
Scandium	45-2				104		%
Selenium	82-1	482.90	500.25	500.26	494.47	2.03	ppb
Selenium	77-2	484.61	504.64	491.91	493.72	2.05	ppb
Selenium	78-2	495.79	492.46	482.55	490.27	1.41	ppb
Silicon	28-1	425.61	431.60	437.94	431.72	1.43	ppb
Silver	107-1	489.79	499.27	508.32	499.13	1.86	ppb
Silver	109-1	484.32	498.31	505.42	496.02	2.16	ppb
Sodium	23-2	253521.16	250842.85	251662.45	252008.82	0.54	ppb
Strontium	86-1	12312.16	12566.19	12572.86	12483.74	1.19	ppb
Strontium	88-1	12127.23	12556.43	12618.39	12434.01	2.15	ppb
Sulfur	34-1	9044.40	9263.61	9265.35	9191.12	1.38	ppb
Terbium	159-1				110		%
Terbium	159-2				106		%
Thallium	203-1	488.96	511.65	502.59	501.07	2.28	ppb
Thallium	205-1	495.01	515.92	512.91	507.95	2.23	ppb
Tin	118-1	478.43	497.16	497.57	491.05	2.23	ppb
Titanium	47-1	4740.85	4994.37	4979.89	4905.04	2.90	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCV003

Instrumnet Name :

P7

Client Sample ID :

CCV003

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:43:37

DataFile Name :

063CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	484.61	512.83	508.47	501.97	3.03	ppb
Vanadium	51-2	510.57	509.92	506.47	508.99	0.43	ppb
Yttrium	89-1				105		%
Yttrium	89-2				105		%
Zinc	66-2	4980.46	4992.79	4970.94	4981.39	0.22	ppb
Zirconium	90-1	482.20	503.63	507.05	497.63	2.71	ppb
Zirconium	91-1	484.27	504.94	509.04	499.42	2.66	ppb

LB Number :LB133596Operator :Jaswal

Lab Sample ID :CCB003Instrumnet Name :P7

Client Sample ID :CCB003Dilution Factor :1

Date & Time Acquired :2024-11-22 16:46:18DataFile Name :064CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1.64	1.02	1.08	1.25	27.16	ppb
Antimony	121-1	0.25	0.27	0.30	0.27	8.80	ppb
Arsenic	75-2	-0.01	0.01	0.01	0.01	149.10	ppb
Barium	135-1	0.58	0.36	0.20	0.38	49.08	ppb
Barium	137-1	0.60	0.38	0.21	0.40	50.18	ppb
Beryllium	9-1	0.08	0.07	0.03	0.06	40.05	ppb
Bismuth	209-1				108		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.13	0.05	0.04	0.07	64.34	ppb
Cadmium	106-1	-1.04	-1.42	-1.45	-1.30		ppb
Cadmium	111-1	0.04	-0.02	-0.06	-0.02		ppb
Calcium	43-1	56.51	38.14	25.24	39.96	39.32	ppb
Calcium	44-1	64.00	38.72	25.75	42.82	45.42	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.01	0.00	-0.01	0.00	2420.32	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00		ppb
Copper	63-2	0.18	0.14	0.10	0.14	28.59	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				109		%
Holmium	165-2				108		%
Indium	115-1				107		%
Indium	115-2				107		%
Iron	56-2	3.47	2.54	1.92	2.64	29.53	ppb
Iron	57-2	3.02	2.31	1.80	2.38	25.70	ppb
Iron	54-2	2.57	2.42	1.57	2.18	24.66	ppb
Krypton	83-1						cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB003 Instrumnet Name : P7
Client Sample ID : CCB003 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:46:18 DataFile Name : 064CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.59	0.37	0.21	0.39	48.95	ppb
Lead	207-1	0.58	0.36	0.21	0.38	49.51	ppb
Lead	208-1	0.58	0.38	0.21	0.39	47.67	ppb
Lithium	6-1				101		%
Magnesium	24-2	5.49	3.78	3.21	4.16	28.53	ppb
Manganese	55-2	0.09	0.05	0.09	0.08	30.30	ppb
Molybdenum	94-1	1.42	1.00	0.76	1.06	31.55	ppb
Molybdenum	95-1	1.19	0.84	0.58	0.87	35.26	ppb
Molybdenum	96-1	1.28	0.88	0.55	0.90	40.53	ppb
Molybdenum	97-1	1.23	0.84	0.55	0.87	38.93	ppb
Molybdenum	98-1	1.24	0.85	0.55	0.88	39.46	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.01	-0.02	-0.02	-0.01		ppb
Phosphorus	31-2	-21.53	-20.48	-20.90	-20.97		ppb
Potassium	39-2	6.02	3.77	5.05	4.95	22.83	ppb
Rhodium	103-1				107		%
Rhodium	103-2				108		%
Scandium	45-1				103		%
Scandium	45-2				108		%
Selenium	82-1	0.46	-0.14	-0.31	0.00	9976.98	ppb
Selenium	77-2	-0.06	0.02	0.02	-0.01		ppb
Selenium	78-2	-0.42	-0.65	-0.09	-0.38		ppb
Silicon	28-1	0.19	-0.22	-0.20	-0.08		ppb
Silver	107-1	0.14	0.08	0.04	0.08	56.03	ppb
Silver	109-1	0.14	0.08	0.05	0.09	53.32	ppb
Sodium	23-2	4.75	1.90	2.87	3.17	45.70	ppb
Strontium	86-1	3.48	1.62	1.25	2.12	56.42	ppb
Strontium	88-1	2.92	1.86	1.10	1.96	46.63	ppb
Sulfur	34-1	-108.73	-198.15	-148.57	-151.82		ppb
Terbium	159-1				108		%
Terbium	159-2				108		%
Thallium	203-1	0.12	0.07	0.04	0.08	54.77	ppb
Thallium	205-1	0.12	0.07	0.04	0.08	50.83	ppb
Tin	118-1	0.13	0.11	0.07	0.10	28.26	ppb
Titanium	47-1	1.19	0.88	0.47	0.84	42.95	ppb

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCB003

Instrumnet Name :

P7

Client Sample ID :

CCB003

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:46:18

DataFile Name :

064CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.11	0.07	0.04	0.07	42.48	ppb
Vanadium	51-2	0.01	0.01	0.01	0.01	25.01	ppb
Yttrium	89-1				106		%
Yttrium	89-2				108		%
Zinc	66-2	0.21	0.05	0.21	0.16	58.97	ppb
Zirconium	90-1	0.20	0.18	0.17	0.18	10.80	ppb
Zirconium	91-1	0.21	0.18	0.16	0.18	14.13	ppb

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P7
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:25:55 DataFile Name : 004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	527	413	520	487	13.07	cps
Antimony	121-1	77	87	90	84	8.22	cps
Arsenic	75-2	30	23	20	24	20.83	cps
Barium	135-1	387	350	360	366	5.19	cps
Barium	137-1	697	670	603	657	7.32	cps
Beryllium	9-1	139	117	111	122	12.03	cps
Bismuth	209-1	17405637	17441704	17505951	17451098	0.29	cps
Bismuth	209-2	14229518	14254305	14270060	14251294	0.14	cps
Bromine	81-1	15448	16102	15545	15698	2.25	cps
Bromine	81-2	127	150	167	148	13.60	cps
Cadmium	108-1	37	33	37	36	5.42	cps
Cadmium	106-1	9593	9707	9537	9612	0.90	cps
Cadmium	111-1	6753	6815	6730	6766	0.65	cps
Calcium	43-1	6121	6175	6161	6152	0.45	cps
Calcium	44-1	110703	111912	112664	111760	0.89	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6291	6045	5975	6104	2.73	cps
Cobalt	59-2	357	370	410	379	7.33	cps
Copper	63-2	2400	2564	2197	2387	7.70	cps
Dysprosium	156-1	40	23	30	31	26.97	cps
Dysprosium	156-2	10	23	20	18	39.03	cps
Erbium	164-1	97	70	133	100	31.80	cps
Erbium	164-2	70	97	87	84	15.95	cps
Gadolinium	160-1	137	153	140	143	6.15	cps
Gadolinium	160-2	1327	1437	1343	1369	4.33	cps
Holmium	165-1	28827030	28750625	29017775	28865143	0.48	cps
Holmium	165-2	20486434	20565145	20567585	20539721	0.22	cps
Indium	115-1	24884163	24737309	25026576	24882682	0.58	cps
Indium	115-2	8950165	8962491	8990601	8967752	0.23	cps
Iron	56-2	41868	41751	41795	41805	0.14	cps
Iron	57-2	1870	2030	1950	1950	4.10	cps
Iron	54-2	5068	5444	5244	5252	3.59	cps
Krypton	83-1	240	243	290	258	10.85	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P7
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:25:55 DataFile Name : 004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2027	2070	2390	2162	9.18	cps
Lead	207-1	1870	1880	1753	1835	3.84	cps
Lead	208-1	8308	8314	8805	8476	3.36	cps
Lithium	6-1	2981035	3019833	3052581	3017816	1.19	cps
Magnesium	24-2	4327	4224	4224	4258	1.40	cps
Manganese	55-2	13256	12649	12849	12918	2.40	cps
Molybdenum	94-1	650	713	777	713	8.88	cps
Molybdenum	95-1	253	307	273	278	9.70	cps
Molybdenum	96-1	500	387	333	407	20.93	cps
Molybdenum	97-1	163	157	203	174	14.47	cps
Molybdenum	98-1	430	350	330	370	14.30	cps
Neodymium	150-1	17	13	17	16	12.40	cps
Neodymium	150-2	3	3	13	7	86.65	cps
Nickel	60-2	710	713	847	757	10.30	cps
Phosphorus	31-2	457	477	533	489	8.13	cps
Potassium	39-2	70499	70944	71537	70993	0.73	cps
Rhodium	103-1	23611727	23578059	23628184	23605990	0.11	cps
Rhodium	103-2	14165096	14162850	14316211	14214719	0.62	cps
Scandium	45-1	13730693	13669508	13787603	13729268	0.43	cps
Scandium	45-2	1224268	1226697	1232538	1227835	0.35	cps
Selenium	82-1	480	480	291	417	26.09	cps
Selenium	77-2	0	7	0	2	173.21	cps
Selenium	78-2	507	473	540	507	6.58	cps
Silicon	28-1	824799	832701	832735	830078	0.55	cps
Silver	107-1	177	177	133	162	15.42	cps
Silver	109-1	50	70	63	61	16.66	cps
Sodium	23-2	67972	68575	68448	68332	0.46	cps
Strontium	86-1	847	920	743	837	10.61	cps
Strontium	88-1	3607	3844	3877	3776	3.90	cps
Sulfur	34-1	285179	286642	285186	285669	0.30	cps
Terbium	159-1	29703093	29748868	29555843	29669268	0.34	cps
Terbium	159-2	20259576	20300603	20057216	20205798	0.64	cps
Thallium	203-1	333	247	287	289	15.02	cps
Thallium	205-1	667	680	630	659	3.93	cps
Tin	118-1	7382	7535	7512	7476	1.11	cps
Titanium	47-1	257	327	253	279	14.85	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S00

Instrumnet Name :

P7

Client Sample ID :

S0

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:25:55

DataFile Name :

004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	127	73	97	99	27.04	cps
Vanadium	51-2	50	60	63	58	12.01	cps
Yttrium	89-1	32720212	33025440	33466066	33070573	1.13	cps
Yttrium	89-2	8633784	8597365	8673495	8634881	0.44	cps
Zinc	66-2	13066	12912	13129	13036	0.86	cps
Zirconium	90-1	1773	1840	1930	1848	4.25	cps
Zirconium	91-1	330	447	383	387	15.10	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S02 Instrumnet Name : P7
Client Sample ID : S02 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:32:32 DataFile Name : 006CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9820	9723	9580	9708	1.24	cps
Antimony	121-1	42613	42820	43459	42964	1.03	cps
Arsenic	75-2	1277	1200	1183	1220	4.08	cps
Barium	135-1	50794	51439	51643	51292	0.86	cps
Barium	137-1	89389	90042	90439	89957	0.59	cps
Beryllium	9-1	2484	2589	2372	2482	4.37	cps
Bismuth	209-1	17618273	17784457	17618898	17673876	0.54	cps
Bismuth	209-2	14229726	14477784	14323338	14343616	0.87	cps
Bromine	81-1	15805	15959	15368	15711	1.95	cps
Bromine	81-2	130	127	157	138	11.93	cps
Cadmium	108-1	443	460	393	432	8.03	cps
Cadmium	106-1	10544	10597	9773	10305	4.47	cps
Cadmium	111-1	12855	12914	12367	12712	2.36	cps
Calcium	43-1	35582	34893	35775	35417	1.31	cps
Calcium	44-1	573966	585414	586829	582070	1.21	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	24827	24924	24403	24718	1.12	cps
Cobalt	59-2	15308	15612	15878	15599	1.83	cps
Copper	63-2	23018	23569	22921	23169	1.51	cps
Dysprosium	156-1	37	33	43	38	13.48	cps
Dysprosium	156-2	43	17	3	21	96.48	cps
Erbium	164-1	110	133	110	118	11.44	cps
Erbium	164-2	110	103	80	98	16.11	cps
Gadolinium	160-1	130	133	137	133	2.50	cps
Gadolinium	160-2	1273	1277	1247	1266	1.30	cps
Holmium	165-1	29036208	29244644	29210749	29163867	0.38	cps
Holmium	165-2	20646906	20613584	20763800	20674764	0.38	cps
Indium	115-1	25210122	24892853	25126454	25076476	0.66	cps
Indium	115-2	8945260	9022654	8839247	8935720	1.03	cps
Iron	56-2	480575	481124	476039	479246	0.58	cps
Iron	57-2	13149	13626	13499	13425	1.84	cps
Iron	54-2	30167	29663	30083	29971	0.90	cps
Krypton	83-1	223	230	233	229	2.22	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S02 Instrumnet Name : P7
Client Sample ID : S02 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:32:32 DataFile Name : 006CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	16764	17098	17755	17205	2.93	cps
Lead	207-1	14875	15566	14868	15103	2.65	cps
Lead	208-1	67750	69433	70132	69105	1.77	cps
Lithium	6-1	3039930	3090783	3103002	3077905	1.09	cps
Magnesium	24-2	411297	414688	411017	412334	0.50	cps
Manganese	55-2	19756	20207	20220	20061	1.32	cps
Molybdenum	94-1	44414	43989	44721	44375	0.83	cps
Molybdenum	95-1	54196	54444	54782	54474	0.54	cps
Molybdenum	96-1	59122	60524	59738	59795	1.18	cps
Molybdenum	97-1	33315	33926	33916	33719	1.04	cps
Molybdenum	98-1	85485	87004	87788	86759	1.35	cps
Neodymium	150-1	20	3	13	12	68.66	cps
Neodymium	150-2	13	7	3	8	65.47	cps
Nickel	60-2	4781	4501	4694	4659	3.08	cps
Phosphorus	31-2	1363	1177	1170	1237	8.87	cps
Potassium	39-2	571081	572593	573717	572464	0.23	cps
Rhodium	103-1	23769176	23914063	23935765	23873002	0.38	cps
Rhodium	103-2	14229872	14355670	14240961	14275501	0.49	cps
Scandium	45-1	13847233	13855011	13825960	13842735	0.11	cps
Scandium	45-2	1232210	1237690	1227517	1232472	0.41	cps
Selenium	82-1	2134	2085	2098	2105	1.20	cps
Selenium	77-2	193	190	123	169	23.38	cps
Selenium	78-2	1033	1167	993	1064	8.53	cps
Silicon	28-1	872373	882640	883845	879619	0.72	cps
Silver	107-1	27894	28391	29026	28437	2.00	cps
Silver	109-1	26888	27239	27566	27231	1.25	cps
Sodium	23-2	692464	694448	690151	692354	0.31	cps
Strontium	86-1	7435	7805	7582	7608	2.45	cps
Strontium	88-1	62994	63369	63757	63373	0.60	cps
Sulfur	34-1	295670	294784	293061	294505	0.45	cps
Terbium	159-1	29895105	29780134	30005008	29893415	0.38	cps
Terbium	159-2	20183828	20227035	20170535	20193799	0.15	cps
Thallium	203-1	19367	19611	19491	19490	0.63	cps
Thallium	205-1	44720	45961	46054	45578	1.63	cps
Tin	118-1	95031	98360	98799	97396	2.12	cps
Titanium	47-1	13399	13740	13229	13456	1.93	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S02

Instrumnet Name :

P7

Client Sample ID :

S02

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:32:32

DataFile Name :

006CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	56111	56077	56195	56128	0.11	cps
Vanadium	51-2	38870	39806	39568	39415	1.23	cps
Yttrium	89-1	33367550	33353599	33314196	33345115	0.08	cps
Yttrium	89-2	8723689	8742485	8695275	8720483	0.27	cps
Zinc	66-2	21486	21716	21659	21620	0.56	cps
Zirconium	90-1	37317	38293	37885	37832	1.30	cps
Zirconium	91-1	8429	8569	8389	8463	1.12	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S03 Instrumnet Name : P7
Client Sample ID : S03 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:35:48 DataFile Name : 007CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	497620	492010	494051	494560	0.57	cps
Antimony	121-1	1055656	1062913	1066903	1061824	0.54	cps
Arsenic	75-2	58033	57374	57190	57532	0.77	cps
Barium	135-1	1283798	1301626	1299400	1294941	0.75	cps
Barium	137-1	2191893	2215763	2234899	2214185	0.97	cps
Beryllium	9-1	114238	115918	116533	115563	1.03	cps
Bismuth	209-1	17435003	17839692	17745352	17673349	1.20	cps
Bismuth	209-2	13430941	14043729	14159256	13877975	2.82	cps
Bromine	81-1	15265	15301	15341	15302	0.25	cps
Bromine	81-2	110	93	117	107	11.27	cps
Cadmium	108-1	21266	21980	21506	21584	1.68	cps
Cadmium	106-1	40015	39921	39938	39958	0.12	cps
Cadmium	111-1	296813	297473	300113	298133	0.59	cps
Calcium	43-1	297066	302716	302678	300820	1.08	cps
Calcium	44-1	4572620	4608659	4565285	4582188	0.51	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	454555	454826	453444	454275	0.16	cps
Cobalt	59-2	727836	726282	722801	725639	0.36	cps
Copper	63-2	5519818	5513929	5334113	5455954	1.93	cps
Dysprosium	156-1	50	50	40	47	12.37	cps
Dysprosium	156-2	87	90	63	80	18.17	cps
Erbium	164-1	137	157	160	151	8.35	cps
Erbium	164-2	90	103	93	96	7.26	cps
Gadolinium	160-1	200	137	120	152	27.73	cps
Gadolinium	160-2	1253	1233	1297	1261	2.57	cps
Holmium	165-1	29128931	29215515	29236120	29193522	0.19	cps
Holmium	165-2	19407525	20095814	19976460	19826600	1.86	cps
Indium	115-1	24795623	24921799	24864367	24860596	0.25	cps
Indium	115-2	8485526	8684576	8809208	8659770	1.89	cps
Iron	56-2	21073638	21217088	21262691	21184473	0.47	cps
Iron	57-2	556799	551478	543250	550509	1.24	cps
Iron	54-2	1211051	1196603	1201970	1203208	0.61	cps
Krypton	83-1	217	253	267	246	10.54	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S03 Instrumnet Name : P7
Client Sample ID : S03 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:35:48 DataFile Name : 007CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3752667	3809360	3809339	3790455	0.86	cps
Lead	207-1	3335287	3422555	3411788	3389877	1.40	cps
Lead	208-1	15117539	15455789	15427496	15333608	1.22	cps
Lithium	6-1	3119625	3155598	3167957	3147726	0.80	cps
Magnesium	24-2	4235536	4140346	4111210	4162364	1.56	cps
Manganese	55-2	3503915	3459605	3555206	3506242	1.36	cps
Molybdenum	94-1	3696390	3727961	3783348	3735900	1.18	cps
Molybdenum	95-1	5419730	5491306	5521643	5477560	0.96	cps
Molybdenum	96-1	5967715	6045639	6048199	6020518	0.76	cps
Molybdenum	97-1	3370565	3396677	3435327	3400856	0.96	cps
Molybdenum	98-1	8594785	8796183	8738319	8709762	1.19	cps
Neodymium	150-1	77	113	93	94	19.44	cps
Neodymium	150-2	30	20	13	21	39.75	cps
Nickel	60-2	188589	191205	190672	190155	0.73	cps
Phosphorus	31-2	24146	24797	24102	24348	1.60	cps
Potassium	39-2	2486161	2458802	2453039	2466001	0.72	cps
Rhodium	103-1	23760790	23884745	23539670	23728401	0.74	cps
Rhodium	103-2	13421767	13748034	14020490	13730097	2.18	cps
Scandium	45-1	13795269	13744399	13764495	13768054	0.19	cps
Scandium	45-2	1172570	1203542	1204892	1193668	1.53	cps
Selenium	82-1	17065	17258	17560	17294	1.44	cps
Selenium	77-2	1777	1800	1793	1790	0.67	cps
Selenium	78-2	6505	6291	6592	6463	2.39	cps
Silicon	28-1	4648468	4725594	4793307	4722457	1.53	cps
Silver	107-1	1451983	1474885	1472995	1466621	0.87	cps
Silver	109-1	1389396	1407965	1401890	1399750	0.68	cps
Sodium	23-2	6621275	6589981	6482704	6564654	1.11	cps
Strontium	86-1	332024	340154	340560	337579	1.43	cps
Strontium	88-1	2891607	2929838	2926080	2915842	0.72	cps
Sulfur	34-1	370896	370191	370764	370617	0.10	cps
Terbium	159-1	29855524	30081446	30167936	30034969	0.54	cps
Terbium	159-2	19552114	19853842	19800590	19735515	0.82	cps
Thallium	203-1	950115	983732	973357	969068	1.78	cps
Thallium	205-1	2247205	2323691	2286680	2285859	1.67	cps
Tin	118-1	900712	908973	914717	908134	0.78	cps
Titanium	47-1	1333624	1300294	1334476	1322798	1.47	cps

LB Number :LB133596

Operator :Jaswal

Lab Sample ID :S03

Instrumnet Name :P7

Client Sample ID :S03

Dilution Factor :1

Date & Time Acquired :2024-11-22 13:35:48

DataFile Name :007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	2875526	2951244	2927458	2918076	1.33	cps
Vanadium	51-2	394050	387138	386337	389175	1.09	cps
Yttrium	89-1	32748340	33145195	33007181	32966905	0.61	cps
Yttrium	89-2	8290170	8483903	8378967	8384347	1.16	cps
Zinc	66-2	890421	886069	884371	886954	0.35	cps
Zirconium	90-1	1811646	1809800	1850437	1823961	1.26	cps
Zirconium	91-1	403394	408683	413619	408566	1.25	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S04 Instrumnet Name : P7
Client Sample ID : S04 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:38:44 DataFile Name : 008CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1178318	1210232	1189142	1192564	1.36	cps
Antimony	121-1	2655947	2641848	2652705	2650167	0.28	cps
Arsenic	75-2	141614	140901	141399	141305	0.26	cps
Barium	135-1	3238488	3271617	3302773	3270960	0.98	cps
Barium	137-1	5526579	5589039	5564239	5559952	0.57	cps
Beryllium	9-1	283483	288528	291283	287765	1.37	cps
Bismuth	209-1	17547742	17618461	17581166	17582456	0.20	cps
Bismuth	209-2	13979129	13794444	13960794	13911455	0.73	cps
Bromine	81-1	15201	14347	15128	14892	3.18	cps
Bromine	81-2	137	120	113	123	9.75	cps
Cadmium	108-1	53254	54324	55265	54281	1.85	cps
Cadmium	106-1	83877	84799	84836	84504	0.64	cps
Cadmium	111-1	727941	728829	730091	728954	0.15	cps
Calcium	43-1	724049	732849	733961	730286	0.74	cps
Calcium	44-1	11027864	11267819	11137710	11144464	1.08	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1116567	1107269	1091669	1105168	1.14	cps
Cobalt	59-2	1786476	1776395	1756825	1773232	0.85	cps
Copper	63-2	13144334	13005361	13022663	13057453	0.58	cps
Dysprosium	156-1	103	43	107	84	42.21	cps
Dysprosium	156-2	147	167	207	173	17.62	cps
Erbium	164-1	140	180	180	167	13.86	cps
Erbium	164-2	140	97	137	124	19.38	cps
Gadolinium	160-1	140	197	157	164	17.71	cps
Gadolinium	160-2	1337	1250	1277	1288	3.45	cps
Holmium	165-1	28753410	29270416	28909460	28977762	0.92	cps
Holmium	165-2	20313799	20258746	20059747	20210764	0.66	cps
Indium	115-1	24591425	24232540	24391882	24405283	0.74	cps
Indium	115-2	8585960	8600882	8478935	8555259	0.78	cps
Iron	56-2	51894129	51182359	50690264	51255584	1.18	cps
Iron	57-2	1341282	1328733	1334282	1334765	0.47	cps
Iron	54-2	2842503	2854324	2839993	2845607	0.27	cps
Krypton	83-1	267	243	280	263	7.05	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S04 Instrumnet Name : P7
Client Sample ID : S04 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:38:44 DataFile Name : 008CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	9495157	9850417	9564112	9636562	1.95	cps
Lead	207-1	8437491	8616560	8546670	8533574	1.06	cps
Lead	208-1	38468582	39448180	38836325	38917696	1.27	cps
Lithium	6-1	3081476	3108618	3118683	3102926	0.62	cps
Magnesium	24-2	10213032	10294779	10201893	10236568	0.50	cps
Manganese	55-2	8532748	8608261	8423496	8521502	1.09	cps
Molybdenum	94-1	9245097	9411031	9321706	9325945	0.89	cps
Molybdenum	95-1	13562676	13639709	13541893	13581426	0.38	cps
Molybdenum	96-1	14924580	14932277	14953104	14936654	0.10	cps
Molybdenum	97-1	8385695	8423475	8458679	8422616	0.43	cps
Molybdenum	98-1	21433124	21727310	21994509	21718314	1.29	cps
Neodymium	150-1	213	170	217	200	13.02	cps
Neodymium	150-2	53	57	67	59	11.79	cps
Nickel	60-2	459600	459860	456619	458693	0.39	cps
Phosphorus	31-2	59468	58445	57916	58609	1.35	cps
Potassium	39-2	5934536	5986621	5885853	5935670	0.85	cps
Rhodium	103-1	23244440	22985073	22752092	22993868	1.07	cps
Rhodium	103-2	13796283	13724541	13491192	13670672	1.17	cps
Scandium	45-1	13461302	13433217	13344467	13412995	0.45	cps
Scandium	45-2	1174826	1176651	1153761	1168413	1.09	cps
Selenium	82-1	42890	42369	42361	42540	0.71	cps
Selenium	77-2	4417	4377	4431	4408	0.63	cps
Selenium	78-2	15315	14998	15008	15107	1.19	cps
Silicon	28-1	8448488	8534187	8549558	8510744	0.64	cps
Silver	107-1	3579112	3579333	3586997	3581814	0.13	cps
Silver	109-1	3459142	3423106	3416989	3433079	0.66	cps
Sodium	23-2	15993244	16206797	15999691	16066577	0.76	cps
Strontium	86-1	828012	840175	837505	835231	0.77	cps
Strontium	88-1	7257418	7320526	7265353	7281099	0.47	cps
Sulfur	34-1	476693	476213	474113	475673	0.29	cps
Terbium	159-1	30005250	29993740	29870281	29956424	0.25	cps
Terbium	159-2	20223824	19800984	20162310	20062373	1.14	cps
Thallium	203-1	2431477	2449328	2431341	2437382	0.42	cps
Thallium	205-1	5727421	5837644	5743346	5769470	1.03	cps
Tin	118-1	2226928	2264405	2239234	2243522	0.85	cps
Titanium	47-1	3230658	3284157	3330585	3281800	1.52	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S04

Instrumnet Name :

P7

Client Sample ID :

S04

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:38:44

DataFile Name :

008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	7429961	7446161	7575930	7484017	1.07	cps
Vanadium	51-2	949318	947657	936203	944392	0.76	cps
Yttrium	89-1	32676132	32555305	32109836	32447091	0.92	cps
Yttrium	89-2	8409012	8438160	8210209	8352460	1.49	cps
Zinc	66-2	2172048	2132972	2128685	2144568	1.11	cps
Zirconium	90-1	4546213	4545200	4499317	4530243	0.59	cps
Zirconium	91-1	1003677	1015360	1015482	1011506	0.67	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S05 Instrumnet Name : P7
Client Sample ID : S05 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:41:30 DataFile Name : 009CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2299726	2293830	2321501	2305019	0.63	cps
Antimony	121-1	5123177	5198555	5123050	5148260	0.85	cps
Arsenic	75-2	274045	272836	273077	273319	0.23	cps
Barium	135-1	6241321	6312571	6340853	6298248	0.81	cps
Barium	137-1	10754580	10895679	10865278	10838512	0.69	cps
Beryllium	9-1	552678	557805	555111	555198	0.46	cps
Bismuth	209-1	17452776	17500415	17483682	17478958	0.14	cps
Bismuth	209-2	13846431	13906849	14062272	13938518	0.80	cps
Bromine	81-1	13857	14110	13626	13864	1.75	cps
Bromine	81-2	137	150	87	124	26.83	cps
Cadmium	108-1	102049	104177	103865	103364	1.11	cps
Cadmium	106-1	150914	153548	152248	152237	0.87	cps
Cadmium	111-1	1372764	1395892	1391641	1386765	0.89	cps
Calcium	43-1	1315934	1334805	1338753	1329831	0.92	cps
Calcium	44-1	21381570	21353392	21411233	21382065	0.14	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2135175	2089040	2132042	2118752	1.22	cps
Cobalt	59-2	3422634	3395350	3402607	3406864	0.41	cps
Copper	63-2	25324947	24850579	24824373	24999966	1.13	cps
Dysprosium	156-1	113	97	127	112	13.39	cps
Dysprosium	156-2	387	340	370	366	6.47	cps
Erbium	164-1	180	197	190	189	4.44	cps
Erbium	164-2	170	117	177	154	21.29	cps
Gadolinium	160-1	200	233	213	216	7.78	cps
Gadolinium	160-2	1170	1200	1183	1185	1.27	cps
Holmium	165-1	28222009	28596635	28826230	28548291	1.07	cps
Holmium	165-2	20165470	20093031	20327372	20195291	0.59	cps
Indium	115-1	23889535	23801219	23750421	23813725	0.30	cps
Indium	115-2	8662204	8463693	8516986	8547627	1.20	cps
Iron	56-2	99894065	98461429	98045315	98800270	0.98	cps
Iron	57-2	2552360	2463453	2422925	2479579	2.67	cps
Iron	54-2	5502451	5407795	5467902	5459383	0.88	cps
Krypton	83-1	250	260	273	261	4.48	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S05 Instrumnet Name : P7
Client Sample ID : S05 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:41:30 DataFile Name : 009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	18600714	19160435	18855664	18872271	1.48	cps
Lead	207-1	16603313	16941409	16735495	16760072	1.02	cps
Lead	208-1	75296054	76617853	76305579	76073162	0.91	cps
Lithium	6-1	3048793	3032560	3067429	3049594	0.57	cps
Magnesium	24-2	19571344	19460083	19601846	19544424	0.38	cps
Manganese	55-2	16486751	16450596	16411563	16449636	0.23	cps
Molybdenum	94-1	17837920	18155504	18072284	18021903	0.91	cps
Molybdenum	95-1	26086570	26490239	26400898	26325902	0.81	cps
Molybdenum	96-1	28512977	29069442	29135354	28905924	1.18	cps
Molybdenum	97-1	16143926	16400807	16527278	16357337	1.19	cps
Molybdenum	98-1	41397741	42376124	42208182	41994015	1.25	cps
Neodymium	150-1	323	390	333	349	10.31	cps
Neodymium	150-2	90	100	93	94	5.39	cps
Nickel	60-2	881178	873563	877204	877315	0.43	cps
Phosphorus	31-2	112557	111596	111026	111726	0.69	cps
Potassium	39-2	11325265	11260614	11354770	11313550	0.43	cps
Rhodium	103-1	22192442	22468829	22279027	22313433	0.63	cps
Rhodium	103-2	13445751	13364991	13508983	13439909	0.54	cps
Scandium	45-1	13090967	12944718	13123340	13053008	0.73	cps
Scandium	45-2	1155051	1142037	1158773	1151954	0.76	cps
Selenium	82-1	80209	81575	81465	81083	0.94	cps
Selenium	77-2	8189	8442	7929	8187	3.14	cps
Selenium	78-2	28050	27830	28050	27976	0.45	cps
Silicon	28-1	18000946	18224231	18198206	18141128	0.67	cps
Silver	107-1	6799507	6892313	6788138	6826653	0.84	cps
Silver	109-1	6489584	6564872	6579638	6544698	0.74	cps
Sodium	23-2	30567930	30448015	30863864	30626603	0.70	cps
Strontium	86-1	1589063	1629825	1629653	1616180	1.45	cps
Strontium	88-1	13960004	14020360	14083586	14021317	0.44	cps
Sulfur	34-1	631456	632438	630431	631442	0.16	cps
Terbium	159-1	29527602	29722093	29712048	29653914	0.37	cps
Terbium	159-2	20056483	20022196	19993205	20023961	0.16	cps
Thallium	203-1	4710600	4783730	4773610	4755980	0.83	cps
Thallium	205-1	11243761	11400924	11328042	11324242	0.69	cps
Tin	118-1	4296121	4356160	4380848	4344376	1.00	cps
Titanium	47-1	6228423	6287617	6225915	6247318	0.56	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S05 Instrumnet Name : P7
Client Sample ID : S05 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:41:30 DataFile Name : 009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	14453593	14854988	14807722	14705434	1.49	cps
Vanadium	51-2	1855922	1832760	1823555	1837412	0.91	cps
Yttrium	89-1	31800297	31505914	31875285	31727165	0.62	cps
Yttrium	89-2	8274031	8114011	8210812	8199618	0.98	cps
Zinc	66-2	4104651	4069365	4046105	4073374	0.72	cps
Zirconium	90-1	8675559	8876656	8881558	8811258	1.33	cps
Zirconium	91-1	1926433	1967367	1963815	1952539	1.16	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S06 Instrumnet Name : P7
Client Sample ID : S06 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:44:16 DataFile Name : 010CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	4494035	4457239	4477489	4476255	0.41	cps
Antimony	121-1	9831266	10250070	10079805	10053714	2.09	cps
Arsenic	75-2	542664	542187	540696	541849	0.19	cps
Barium	135-1	12114364	12562975	12430794	12369378	1.86	cps
Barium	137-1	20989188	21542307	21247876	21259790	1.30	cps
Beryllium	9-1	1085216	1105392	1117000	1102536	1.46	cps
Bismuth	209-1	17982504	17466450	17293523	17580826	2.04	cps
Bismuth	209-2	13891427	14039566	13854611	13928535	0.70	cps
Bromine	81-1	14023	13506	13840	13790	1.90	cps
Bromine	81-2	133	130	123	129	3.95	cps
Cadmium	108-1	197084	200925	199935	199314	1.00	cps
Cadmium	106-1	283135	288977	288766	286959	1.15	cps
Cadmium	111-1	2641643	2702183	2696264	2680030	1.25	cps
Calcium	43-1	2569708	2616540	2572301	2586183	1.02	cps
Calcium	44-1	40670847	41749229	41623038	41347705	1.43	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4160735	4144600	4188797	4164711	0.54	cps
Cobalt	59-2	6636573	6649935	6665124	6650544	0.21	cps
Copper	63-2	48689638	49360559	48923768	48991321	0.70	cps
Dysprosium	156-1	210	253	240	234	9.47	cps
Dysprosium	156-2	723	683	817	741	9.23	cps
Erbium	164-1	320	313	280	304	7.04	cps
Erbium	164-2	227	193	157	192	18.21	cps
Gadolinium	160-1	303	297	297	299	1.29	cps
Gadolinium	160-2	1287	1307	1277	1290	1.18	cps
Holmium	165-1	30356035	29853095	28977360	29728830	2.35	cps
Holmium	165-2	20562533	20524617	20555804	20547651	0.10	cps
Indium	115-1	24501138	23798135	23805462	24034912	1.68	cps
Indium	115-2	8464851	8499441	8444104	8469466	0.33	cps
Iron	56-2	194012377	194797924	194364617	194391639	0.20	cps
Iron	57-2	4872762	4913489	4869588	4885279	0.50	cps
Iron	54-2	10733425	10677548	10690890	10700621	0.27	cps
Krypton	83-1	250	293	297	280	9.30	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S06 Instrumnet Name : P7
Client Sample ID : S06 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:44:16 DataFile Name : 010CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	36916043	37570120	37207566	37231243	0.88	cps
Lead	207-1	32779478	33402088	33197643	33126403	0.96	cps
Lead	208-1	148164814	151755772	151050494	150323694	1.27	cps
Lithium	6-1	3082256	2973665	2968914	3008278	2.13	cps
Magnesium	24-2	38141429	37985219	38293278	38139975	0.40	cps
Manganese	55-2	32501049	32335413	32404704	32413722	0.26	cps
Molybdenum	94-1	35373028	36135429	35846263	35784906	1.08	cps
Molybdenum	95-1	51358951	52067064	52212948	51879654	0.88	cps
Molybdenum	96-1	56774912	57113154	57291602	57059890	0.46	cps
Molybdenum	97-1	32118760	32531619	32670614	32440331	0.88	cps
Molybdenum	98-1	82203377	83672902	83664275	83180185	1.02	cps
Neodymium	150-1	697	680	677	684	1.57	cps
Neodymium	150-2	213	133	220	189	25.53	cps
Nickel	60-2	1734688	1744247	1704852	1727929	1.19	cps
Phosphorus	31-2	220917	216282	220072	219090	1.13	cps
Potassium	39-2	22408461	22337535	22554541	22433512	0.49	cps
Rhodium	103-1	22933244	22294572	22085313	22437710	1.97	cps
Rhodium	103-2	13264178	13350166	13322954	13312432	0.33	cps
Scandium	45-1	13381071	13173636	13091724	13215477	1.13	cps
Scandium	45-2	1151428	1157551	1165446	1158142	0.61	cps
Selenium	82-1	155771	159590	159391	158251	1.36	cps
Selenium	77-2	16826	16433	16506	16588	1.26	cps
Selenium	78-2	55487	55028	55259	55258	0.42	cps
Silicon	28-1	40950076	42102709	41536980	41529922	1.39	cps
Silver	107-1	13150770	13455759	13302094	13302874	1.15	cps
Silver	109-1	12499890	12841493	12783151	12708178	1.44	cps
Sodium	23-2	60559386	60730981	59964622	60418330	0.67	cps
Strontium	86-1	3068215	3220867	3219592	3169558	2.77	cps
Strontium	88-1	27262077	27857000	28034951	27718010	1.46	cps
Sulfur	34-1	962391	972625	969613	968209	0.54	cps
Terbium	159-1	31027245	29865983	29684485	30192571	2.41	cps
Terbium	159-2	20449204	20498757	20223129	20390363	0.72	cps
Thallium	203-1	9339407	9501285	9512404	9451032	1.02	cps
Thallium	205-1	22225836	22370426	22420425	22338896	0.45	cps
Tin	118-1	8241249	8596443	8513981	8450557	2.20	cps
Titanium	47-1	12165622	12542038	12316199	12341286	1.54	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S06

Instrumnet Name :

P7

Client Sample ID :

S06

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:44:16

DataFile Name :

010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	29000957	30114350	29630206	29581838	1.89	cps
Vanadium	51-2	3679747	3642839	3654194	3658927	0.52	cps
Yttrium	89-1	33229243	31914915	32240188	32461448	2.11	cps
Yttrium	89-2	8392025	8420586	8265815	8359475	0.99	cps
Zinc	66-2	8004643	8077708	7920515	8000955	0.98	cps
Zirconium	90-1	17155487	17670321	17626191	17483999	1.63	cps
Zirconium	91-1	3776428	3875698	3917917	3856681	1.88	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S07 Instrumnet Name : P7
Client Sample ID : S07 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:46:59 DataFile Name : 011CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9515863	9415648	9460261	9463924	0.53	cps
Antimony	121-1	21677696	21834700	21440941	21651112	0.92	cps
Arsenic	75-2	1144190	1139094	1144292	1142525	0.26	cps
Barium	135-1	26460713	26916271	26351619	26576201	1.13	cps
Barium	137-1	45433746	45796973	45320119	45516946	0.55	cps
Beryllium	9-1	2257628	2239608	2215535	2237590	0.94	cps
Bismuth	209-1	18129728	17909266	18066543	18035179	0.63	cps
Bismuth	209-2	14280570	14342090	14349832	14324164	0.26	cps
Bromine	81-1	14264	14894	14250	14469	2.54	cps
Bromine	81-2	110	140	130	127	12.06	cps
Cadmium	108-1	420428	421440	423020	421629	0.31	cps
Cadmium	106-1	593187	597471	593273	594644	0.41	cps
Cadmium	111-1	5631017	5633290	5626314	5630207	0.06	cps
Calcium	43-1	5523029	5504118	5500309	5509152	0.22	cps
Calcium	44-1	88464149	88387509	88063242	88304966	0.24	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	8730581	8723028	8792926	8748845	0.44	cps
Cobalt	59-2	13865216	13840204	13946065	13883828	0.40	cps
Copper	63-2	101696208	100715702	101241818	101217910	0.48	cps
Dysprosium	156-1	550	440	473	488	11.56	cps
Dysprosium	156-2	1327	1410	1393	1377	3.20	cps
Erbium	164-1	460	483	483	476	2.83	cps
Erbium	164-2	320	250	370	313	19.24	cps
Gadolinium	160-1	417	417	430	421	1.83	cps
Gadolinium	160-2	1413	1407	1357	1392	2.22	cps
Holmium	165-1	30850035	30619314	31025546	30831631	0.66	cps
Holmium	165-2	21464786	21639250	21682218	21595418	0.53	cps
Indium	115-1	24605504	24624730	24709178	24646471	0.22	cps
Indium	115-2	8785833	8752215	8809838	8782629	0.33	cps
Iron	56-2	406252554	406053127	408700914	407002198	0.36	cps
Iron	57-2	10331221	10166840	10096089	10198050	1.18	cps
Iron	54-2	22642725	22276563	22508941	22476076	0.82	cps
Krypton	83-1	280	283	310	291	5.65	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S07 Instrumnet Name : P7
Client Sample ID : S07 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:46:59 DataFile Name : 011CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	78521861	79113909	79339982	78991917	0.53	cps
Lead	207-1	69195047	70027321	70105881	69776083	0.72	cps
Lead	208-1	315030085	317617964	319430947	317359665	0.70	cps
Lithium	6-1	3023935	3012723	2932530	2989729	1.67	cps
Magnesium	24-2	81586304	80899597	81475770	81320557	0.45	cps
Manganese	55-2	68049404	67940841	67757087	67915777	0.22	cps
Molybdenum	94-1	76681409	76453277	76351869	76495518	0.22	cps
Molybdenum	95-1	111649792	111439322	111837592	111642235	0.18	cps
Molybdenum	96-1	122175778	122632365	122639058	122482400	0.22	cps
Molybdenum	97-1	69455681	68825464	69187326	69156157	0.46	cps
Molybdenum	98-1	178194531	178385457	178986237	178522075	0.23	cps
Neodymium	150-1	1357	1343	1483	1395	5.54	cps
Neodymium	150-2	423	290	377	363	18.62	cps
Nickel	60-2	3557354	3540188	3541749	3546430	0.27	cps
Phosphorus	31-2	466792	463839	466516	465715	0.35	cps
Potassium	39-2	46998718	47140864	47230799	47123460	0.25	cps
Rhodium	103-1	23088080	22970105	22960526	23006237	0.31	cps
Rhodium	103-2	13634974	13588216	13607252	13610147	0.17	cps
Scandium	45-1	13508949	13686394	13567332	13587559	0.67	cps
Scandium	45-2	1217685	1212849	1225758	1218764	0.54	cps
Selenium	82-1	335466	340140	337928	337845	0.69	cps
Selenium	77-2	35259	35175	35245	35226	0.13	cps
Selenium	78-2	117743	117992	119389	118375	0.75	cps
Silicon	28-1	77603081	76043796	75803056	76483311	1.28	cps
Silver	107-1	27623662	28005890	27773329	27800960	0.69	cps
Silver	109-1	26363845	26643448	26568492	26525262	0.55	cps
Sodium	23-2	127047318	126596131	126926011	126856487	0.18	cps
Strontium	86-1	6702719	6794244	6793556	6763507	0.78	cps
Strontium	88-1	58819572	59521234	59162504	59167770	0.59	cps
Sulfur	34-1	1865593	1877399	1861228	1868073	0.45	cps
Terbium	159-1	31767510	31682377	31522752	31657546	0.39	cps
Terbium	159-2	21169434	21230290	21393726	21264483	0.55	cps
Thallium	203-1	19820247	20035890	19897022	19917720	0.55	cps
Thallium	205-1	47225924	47363963	47164129	47251339	0.22	cps
Tin	118-1	17892371	18053826	18046906	17997701	0.51	cps
Titanium	47-1	26269060	25976559	25981307	26075642	0.64	cps

LB Number :LB133596

Operator :Jaswal

Lab Sample ID :S07

Instrumnet Name :P7

Client Sample ID :S07

Dilution Factor :1

Date & Time Acquired :2024-11-22 13:46:59

DataFile Name :011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	62282607	62437432	61901007	62207016	0.44	cps
Vanadium	51-2	7673868	7608007	7640813	7640896	0.43	cps
Yttrium	89-1	33646237	33632803	33551158	33610066	0.15	cps
Yttrium	89-2	8794945	8677766	8768357	8747023	0.70	cps
Zinc	66-2	16686693	16500580	16623502	16603592	0.57	cps
Zirconium	90-1	37430612	37407694	37273180	37370496	0.23	cps
Zirconium	91-1	8289164	8172987	8220043	8227398	0.71	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S08 Instrumnet Name : P7
Client Sample ID : S08 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:49:45 DataFile Name : 012CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	49706064	50714354	49805239	50075219	1.11	cps
Antimony	121-1	9723	10097	11178	10333	7.31	cps
Arsenic	75-2	657	633	580	623	6.30	cps
Barium	135-1	11328	10714	10257	10766	4.99	cps
Barium	137-1	19724	18222	17988	18645	5.05	cps
Beryllium	9-1	489	272	383	381	28.40	cps
Bismuth	209-1	15927923	15844404	15729210	15833846	0.63	cps
Bismuth	209-2	12405804	12645704	12394836	12482115	1.14	cps
Bromine	81-1	16052	16316	16773	16380	2.23	cps
Bromine	81-2	107	157	140	134	18.94	cps
Cadmium	108-1	200	210	223	211	5.55	cps
Cadmium	106-1	9506	9350	9590	9482	1.29	cps
Cadmium	111-1	7768	7411	7627	7602	2.36	cps
Calcium	43-1	26648864	27173626	27158267	26993586	1.11	cps
Calcium	44-1	431141220	436715607	439284353	435713727	0.96	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	16903	17097	17167	17055	0.80	cps
Cobalt	59-2	37176	36955	37096	37076	0.30	cps
Copper	63-2	19596	19192	18885	19225	1.85	cps
Dysprosium	156-1	903	970	877	917	5.24	cps
Dysprosium	156-2	757	643	637	679	9.93	cps
Erbium	164-1	1040	1003	930	991	5.65	cps
Erbium	164-2	690	717	690	699	2.20	cps
Gadolinium	160-1	897	810	887	864	5.49	cps
Gadolinium	160-2	1770	1720	1870	1787	4.28	cps
Holmium	165-1	29685610	29851170	29576836	29704539	0.47	cps
Holmium	165-2	20555233	20602985	20510720	20556313	0.22	cps
Indium	115-1	23630760	23445337	23592834	23556310	0.42	cps
Indium	115-2	8592633	8711989	8514924	8606515	1.15	cps
Iron	56-2	2000715384	2039413836	2035602370	2025243863	1.05	cps
Iron	57-2	50318596	51005069	50195864	50506510	0.86	cps
Iron	54-2	109796755	110312352	110091278	110066795	0.24	cps
Krypton	83-1	310	363	263	312	16.03	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : S08 Instrumnet Name : P7
Client Sample ID : S08 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 13:49:45 DataFile Name : 012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	12463	10434	9503	10800	14.01	cps
Lead	207-1	10411	8870	8046	9109	13.18	cps
Lead	208-1	48805	40951	37177	42311	14.02	cps
Lithium	6-1	2850487	2893116	2930182	2891261	1.38	cps
Magnesium	24-2	413864781	415344140	421586274	416931732	0.98	cps
Manganese	55-2	37741	37346	37533	37540	0.53	cps
Molybdenum	94-1	21212	18518	17594	19108	9.84	cps
Molybdenum	95-1	21559	17691	16990	18747	13.13	cps
Molybdenum	96-1	37652	34437	33458	35182	6.24	cps
Molybdenum	97-1	12959	10521	9877	11119	14.62	cps
Molybdenum	98-1	32333	27125	25218	28225	13.05	cps
Neodymium	150-1	480	477	473	477	0.70	cps
Neodymium	150-2	233	280	260	258	9.08	cps
Nickel	60-2	10907	10637	11184	10910	2.51	cps
Phosphorus	31-2	623	577	587	596	4.13	cps
Potassium	39-2	247258676	247322736	244961996	246514470	0.55	cps
Rhodium	103-1	21263329	21202203	21072316	21179283	0.46	cps
Rhodium	103-2	12573238	12690825	12520744	12594936	0.69	cps
Scandium	45-1	13490339	13426337	13725774	13547483	1.16	cps
Scandium	45-2	1243568	1269896	1242728	1252064	1.23	cps
Selenium	82-1	736	589	753	692	13.04	cps
Selenium	77-2	3	20	17	13	66.16	cps
Selenium	78-2	483	457	513	484	5.85	cps
Silicon	28-1	916788	908342	898347	907826	1.02	cps
Silver	107-1	4097	3380	3220	3566	13.10	cps
Silver	109-1	3914	3347	2777	3346	16.99	cps
Sodium	23-2	629997764	645221444	644167217	639795475	1.33	cps
Strontium	86-1	23499	23662	23011	23391	1.45	cps
Strontium	88-1	197645	199125	198791	198521	0.39	cps
Sulfur	34-1	227928	240494	250933	239785	4.80	cps
Terbium	159-1	30448200	30115754	30216771	30260242	0.56	cps
Terbium	159-2	20154781	20340898	20397418	20297699	0.63	cps
Thallium	203-1	1930	1340	1060	1443	30.77	cps
Thallium	205-1	4454	3127	2840	3474	24.78	cps
Tin	118-1	9370	8719	8486	8858	5.17	cps
Titanium	47-1	4537	3720	3494	3917	14.01	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

S08

Instrumnet Name :

P7

Client Sample ID :

S08

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 13:49:45

DataFile Name :

012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	5898	3767	3090	4252	34.46	cps
Vanadium	51-2	2107	2167	2110	2128	1.58	cps
Yttrium	89-1	32664724	32595507	33015836	32758689	0.69	cps
Yttrium	89-2	8801776	8831250	8717706	8783577	0.67	cps
Zinc	66-2	9366	9556	9273	9399	1.54	cps
Zirconium	90-1	22751	21866	22010	22209	2.14	cps
Zirconium	91-1	5118	4898	4904	4973	2.52	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICV001 Instrumnet Name : P7
Client Sample ID : ICV001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:01:56 DataFile Name : 013ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	245077	242195	242611	243294	0.64	cps
Antimony	121-1	4214472	4248463	4327101	4263345	1.36	cps
Arsenic	75-2	242683	242123	239106	241304	0.80	cps
Barium	135-1	508581	526644	528316	521181	2.10	cps
Barium	137-1	887125	912162	918557	905948	1.83	cps
Beryllium	9-1	224060	233572	229825	229153	2.09	cps
Bismuth	209-1	18356933	17940381	17778047	18025120	1.66	cps
Bismuth	209-2	14609399	14397283	14567588	14524757	0.77	cps
Bromine	81-1	16172	16523	16586	16427	1.36	cps
Bromine	81-2	143	150	153	149	3.42	cps
Cadmium	108-1	37926	38919	39330	38725	1.86	cps
Cadmium	106-1	60043	61878	63250	61724	2.61	cps
Cadmium	111-1	581879	594263	598802	591648	1.48	cps
Calcium	43-1	119680	124673	123393	122582	2.12	cps
Calcium	44-1	1859309	1891674	1895566	1882183	1.06	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	971239	960922	958173	963445	0.72	cps
Cobalt	59-2	1530851	1558433	1539765	1543016	0.91	cps
Copper	63-2	1079323	1077019	1074989	1077110	0.20	cps
Dysprosium	156-1	23	20	30	24	20.83	cps
Dysprosium	156-2	57	43	50	50	13.34	cps
Erbium	164-1	130	113	117	120	7.35	cps
Erbium	164-2	137	93	80	103	28.67	cps
Gadolinium	160-1	190	130	117	146	26.84	cps
Gadolinium	160-2	1337	1297	1310	1315	1.55	cps
Holmium	165-1	30156160	29551940	29593305	29767135	1.13	cps
Holmium	165-2	21205032	21094296	20935368	21078232	0.64	cps
Indium	115-1	26400270	25369099	25402853	25724074	2.28	cps
Indium	115-2	9232240	9292067	9194803	9239703	0.53	cps
Iron	56-2	17272278	17213120	17015051	17166816	0.78	cps
Iron	57-2	444234	445362	443410	444335	0.22	cps
Iron	54-2	1008698	1005970	1008500	1007722	0.15	cps
Krypton	83-1	250	223	253	242	6.79	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICV001 Instrumnet Name : P7
Client Sample ID : ICV001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:01:56 DataFile Name : 013ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3176402	3291292	3258203	3241966	1.82	cps
Lead	207-1	2700139	2803598	2748085	2750607	1.88	cps
Lead	208-1	12475167	12950722	12806703	12744197	1.91	cps
Lithium	6-1	3167264	3166626	3116443	3150111	0.93	cps
Magnesium	24-2	956486	955607	939104	950399	1.03	cps
Manganese	55-2	741540	739493	730269	737101	0.81	cps
Molybdenum	94-1	1527	1690	1807	1675	8.40	cps
Molybdenum	95-1	660	587	577	608	7.49	cps
Molybdenum	96-1	1200	1137	1040	1126	7.16	cps
Molybdenum	97-1	403	407	420	410	2.15	cps
Molybdenum	98-1	1113	977	1007	1032	6.96	cps
Neodymium	150-1	50	57	53	53	6.25	cps
Neodymium	150-2	10	10	23	14	53.28	cps
Nickel	60-2	400234	399174	398292	399233	0.24	cps
Phosphorus	31-2	470	590	473	511	13.37	cps
Potassium	39-2	2051814	2061356	2041435	2051535	0.49	cps
Rhodium	103-1	25169653	24325704	24327422	24607593	1.98	cps
Rhodium	103-2	14697622	14609651	14463746	14590340	0.81	cps
Scandium	45-1	15039208	14394227	14279860	14571098	2.81	cps
Scandium	45-2	1301374	1272099	1254774	1276082	1.85	cps
Selenium	82-1	69307	70330	71298	70312	1.42	cps
Selenium	77-2	7662	7615	7759	7679	0.95	cps
Selenium	78-2	25449	25265	25345	25353	0.36	cps
Silicon	28-1	833909	832366	836533	834269	0.25	cps
Silver	107-1	1415177	1444089	1461688	1440318	1.63	cps
Silver	109-1	1348508	1379220	1390677	1372802	1.59	cps
Sodium	23-2	2694735	2725296	2682842	2700958	0.81	cps
Strontium	86-1	2490	2447	2574	2504	2.57	cps
Strontium	88-1	18288	18755	18602	18548	1.28	cps
Sulfur	34-1	296867	295840	295512	296073	0.24	cps
Terbium	159-1	31193949	30131075	29884046	30403023	2.29	cps
Terbium	159-2	20975824	20860064	20788561	20874816	0.45	cps
Thallium	203-1	3924573	4020547	4098487	4014536	2.17	cps
Thallium	205-1	9337108	9478931	9548188	9454742	1.14	cps
Tin	118-1	7669	7599	7846	7704	1.65	cps
Titanium	47-1	400	297	297	331	18.02	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICV001 Instrumnet Name : P7
Client Sample ID : ICV001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:01:56 DataFile Name : 013ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	173	147	163	161	8.36	cps
Vanadium	51-2	799490	799515	798789	799265	0.05	cps
Yttrium	89-1	35619578	34141589	33877790	34546319	2.72	cps
Yttrium	89-2	9044855	8934148	8852475	8943826	1.08	cps
Zinc	66-2	365296	367076	362868	365080	0.58	cps
Zirconium	90-1	3214	3520	3787	3507	8.18	cps
Zirconium	91-1	1173	1167	1230	1190	2.93	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICB001 Instrumnet Name : P7
Client Sample ID : ICB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:05:00 DataFile Name : 014CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	523	560	557	547	3.71	cps
Antimony	121-1	2054	1890	2067	2003	4.91	cps
Arsenic	75-2	23	40	33	32	26.04	cps
Barium	135-1	407	393	337	379	9.81	cps
Barium	137-1	640	650	597	629	4.51	cps
Beryllium	9-1	183	172	178	178	3.12	cps
Bismuth	209-1	17510821	17456148	17737922	17568297	0.85	cps
Bismuth	209-2	14661866	14470188	14426275	14519443	0.86	cps
Bromine	81-1	16489	16483	16579	16517	0.33	cps
Bromine	81-2	107	147	133	129	15.80	cps
Cadmium	108-1	40	47	27	38	26.95	cps
Cadmium	106-1	9723	9670	9443	9612	1.55	cps
Cadmium	111-1	6975	6823	6678	6825	2.17	cps
Calcium	43-1	6075	6491	6732	6433	5.17	cps
Calcium	44-1	116721	118824	118495	118013	0.96	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6431	6648	6518	6533	1.67	cps
Cobalt	59-2	360	343	323	342	5.36	cps
Copper	63-2	2490	2627	2444	2520	3.78	cps
Dysprosium	156-1	20	13	27	20	33.35	cps
Dysprosium	156-2	13	10	7	10	33.30	cps
Erbium	164-1	130	140	90	120	22.05	cps
Erbium	164-2	67	63	57	62	8.18	cps
Gadolinium	160-1	163	130	123	139	15.43	cps
Gadolinium	160-2	1263	1270	1240	1258	1.25	cps
Holmium	165-1	29051630	29117455	29291100	29153395	0.42	cps
Holmium	165-2	21248077	20935558	20960226	21047954	0.83	cps
Indium	115-1	24944656	25268531	25495557	25236248	1.10	cps
Indium	115-2	9186914	9145858	9156927	9163233	0.23	cps
Iron	56-2	44158	49552	44078	45929	6.83	cps
Iron	57-2	1930	2077	1900	1969	4.80	cps
Iron	54-2	5444	5544	5468	5485	0.95	cps
Krypton	83-1	263	303	317	294	9.43	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICB001 Instrumnet Name : P7
Client Sample ID : ICB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:05:00 DataFile Name : 014CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3164	2727	2834	2908	7.83	cps
Lead	207-1	2520	2474	2134	2376	8.89	cps
Lead	208-1	12292	10952	10318	11188	9.01	cps
Lithium	6-1	3093749	3163704	3190315	3149256	1.58	cps
Magnesium	24-2	4447	4461	4571	4493	1.51	cps
Manganese	55-2	13546	13563	13313	13474	1.04	cps
Molybdenum	94-1	920	910	873	901	2.73	cps
Molybdenum	95-1	237	253	303	264	13.12	cps
Molybdenum	96-1	437	437	533	469	11.90	cps
Molybdenum	97-1	140	143	250	178	35.20	cps
Molybdenum	98-1	423	413	400	412	2.84	cps
Neodymium	150-1	13	23	27	21	32.88	cps
Neodymium	150-2	17	10	13	13	25.01	cps
Nickel	60-2	1033	1043	1163	1080	6.70	cps
Phosphorus	31-2	487	570	513	523	8.13	cps
Potassium	39-2	81091	81423	80551	81022	0.54	cps
Rhodium	103-1	24042440	24367408	24379988	24263279	0.79	cps
Rhodium	103-2	14825279	14578070	14708149	14703833	0.84	cps
Scandium	45-1	14059616	14306220	14223453	14196430	0.88	cps
Scandium	45-2	1281198	1263902	1281873	1275657	0.80	cps
Selenium	82-1	412	350	339	367	10.75	cps
Selenium	77-2	7	0	0	2	173.21	cps
Selenium	78-2	493	460	437	463	6.15	cps
Silicon	28-1	823384	823748	828912	825348	0.37	cps
Silver	107-1	633	447	387	489	26.31	cps
Silver	109-1	543	367	373	428	23.41	cps
Sodium	23-2	74760	75229	74633	74874	0.42	cps
Strontium	86-1	833	757	803	798	4.84	cps
Strontium	88-1	3490	3437	3804	3577	5.54	cps
Sulfur	34-1	295221	297682	298113	297005	0.53	cps
Terbium	159-1	30039126	30352607	30244020	30211918	0.53	cps
Terbium	159-2	20892867	20782196	20436755	20703939	1.15	cps
Thallium	203-1	977	650	727	784	21.78	cps
Thallium	205-1	2267	1520	1477	1755	25.32	cps
Tin	118-1	7652	7956	7585	7731	2.55	cps
Titanium	47-1	190	227	210	209	8.79	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICB001 Instrumnet Name : P7
Client Sample ID : ICB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:05:00 DataFile Name : 014CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	80	63	90	78	17.32	cps
Vanadium	51-2	53	43	63	53	18.75	cps
Yttrium	89-1	33615846	34187429	33886837	33896704	0.84	cps
Yttrium	89-2	8936365	8962644	8970371	8956460	0.20	cps
Zinc	66-2	13276	13790	13550	13538	1.90	cps
Zirconium	90-1	2137	2124	2327	2196	5.18	cps
Zirconium	91-1	467	473	473	471	0.82	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICSA001 Instrumnet Name : P7
Client Sample ID : ICSA001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:08:17 DataFile Name : 015ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	45402073	45412749	45131846	45315556	0.35	cps
Antimony	121-1	23770	24488	25459	24572	3.45	cps
Arsenic	75-2	417	420	430	422	1.64	cps
Barium	135-1	7812	7766	7816	7798	0.36	cps
Barium	137-1	13059	13643	13667	13456	2.56	cps
Beryllium	9-1	744	683	728	719	4.40	cps
Bismuth	209-1	16601711	16888834	17046339	16845628	1.34	cps
Bismuth	209-2	13570756	13669966	13764370	13668364	0.71	cps
Bromine	81-1	16906	17731	17567	17401	2.51	cps
Bromine	81-2	320	273	280	291	8.67	cps
Cadmium	108-1	4094	4201	4071	4122	1.68	cps
Cadmium	106-1	9006	8849	8943	8933	0.88	cps
Cadmium	111-1	8423	8375	8675	8491	1.90	cps
Calcium	43-1	5393879	5505685	5524623	5474729	1.29	cps
Calcium	44-1	87299049	88762145	88913139	88324778	1.01	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	190193	191195	190318	190569	0.29	cps
Cobalt	59-2	17831	18131	18168	18043	1.03	cps
Copper	63-2	79158	79366	79805	79443	0.42	cps
Dysprosium	156-1	103	133	77	104	27.14	cps
Dysprosium	156-2	63	100	90	84	22.45	cps
Erbium	164-1	193	183	203	193	5.17	cps
Erbium	164-2	133	90	143	122	23.20	cps
Gadolinium	160-1	217	213	240	223	6.51	cps
Gadolinium	160-2	1207	1300	1267	1258	3.76	cps
Holmium	165-1	29870882	29889870	30338477	30033076	0.88	cps
Holmium	165-2	20886738	21224763	21175466	21095656	0.87	cps
Indium	115-1	23745976	24566259	24890275	24400837	2.42	cps
Indium	115-2	8743541	8871053	8915593	8843396	1.01	cps
Iron	56-2	837784548	836140148	836591801	836838832	0.10	cps
Iron	57-2	20844104	20672010	20961102	20825739	0.70	cps
Iron	54-2	44992948	45543446	46128568	45554987	1.25	cps
Krypton	83-1	250	320	273	281	12.68	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICSA001 Instrumnet Name : P7
Client Sample ID : ICSA001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:08:17 DataFile Name : 015ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	76547	75280	76316	76048	0.89	cps
Lead	207-1	61354	60641	59285	60427	1.74	cps
Lead	208-1	287714	284174	283115	285001	0.85	cps
Lithium	6-1	2836515	2803616	2772675	2804269	1.14	cps
Magnesium	24-2	78588781	79481184	79144900	79071622	0.57	cps
Manganese	55-2	67427	67748	68073	67749	0.48	cps
Molybdenum	94-1	11862406	12206091	12295236	12121244	1.89	cps
Molybdenum	95-1	21316161	21671841	21826711	21604904	1.21	cps
Molybdenum	96-1	22718015	23527078	23718162	23321085	2.28	cps
Molybdenum	97-1	13155301	13410426	13652059	13405929	1.85	cps
Molybdenum	98-1	33815895	34355079	35255992	34475655	2.11	cps
Neodymium	150-1	97	100	110	102	6.79	cps
Neodymium	150-2	50	80	47	59	31.17	cps
Nickel	60-2	21389	21509	20971	21290	1.32	cps
Phosphorus	31-2	2346614	2408104	2349851	2368190	1.46	cps
Potassium	39-2	95391452	96317642	96291049	96000047	0.55	cps
Rhodium	103-1	22213303	22213882	22795410	22407532	1.50	cps
Rhodium	103-2	13608797	13720435	13829443	13719558	0.80	cps
Scandium	45-1	13460292	13492049	13683942	13545428	0.89	cps
Scandium	45-2	1235153	1234338	1236710	1235401	0.10	cps
Selenium	82-1	488	349	341	393	21.03	cps
Selenium	77-2	3	7	7	6	34.70	cps
Selenium	78-2	513	527	507	516	1.98	cps
Silicon	28-1	1161292	1177404	1189999	1176232	1.22	cps
Silver	107-1	897	1000	960	952	5.47	cps
Silver	109-1	803	803	823	810	1.43	cps
Sodium	23-2	127133358	128572621	128292455	127999478	0.60	cps
Strontium	86-1	231028	237458	238941	235809	1.78	cps
Strontium	88-1	2027939	2046567	2117575	2064027	2.29	cps
Sulfur	34-1	8035391	8143659	8077229	8085426	0.68	cps
Terbium	159-1	30614715	30730550	31160655	30835307	0.93	cps
Terbium	159-2	20690808	20937200	20923136	20850381	0.66	cps
Thallium	203-1	1877	2270	2580	2242	15.72	cps
Thallium	205-1	5014	5478	5765	5419	6.99	cps
Tin	118-1	10617	11151	11101	10956	2.69	cps
Titanium	47-1	5184184	5323371	5373242	5293599	1.85	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICSA001 Instrumnet Name : P7
Client Sample ID : ICSA001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:08:17 DataFile Name : 015ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1123	1147	967	1079	9.07	cps
Vanadium	51-2	1407	1577	1550	1511	6.05	cps
Yttrium	89-1	32767427	32814525	33863574	33148508	1.87	cps
Yttrium	89-2	8844438	8831560	8773704	8816567	0.43	cps
Zinc	66-2	30535	30762	30481	30593	0.49	cps
Zirconium	90-1	2430	2500	2974	2635	11.22	cps
Zirconium	91-1	513	560	610	561	8.62	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICSAB001 Instrumnet Name : P7
Client Sample ID : ICSAB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:11:18 DataFile Name : 016ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	45711581	46358479	46280803	46116954	0.77	cps
Antimony	121-1	465975	476187	483057	475073	1.81	cps
Arsenic	75-2	24377	24270	23986	24211	0.83	cps
Barium	135-1	115726	116885	118538	117049	1.21	cps
Barium	137-1	199330	206372	205482	203728	1.88	cps
Beryllium	9-1	40420	41494	40726	40880	1.35	cps
Bismuth	209-1	17505681	17646932	17750721	17634445	0.70	cps
Bismuth	209-2	13977943	13717356	13979441	13891580	1.09	cps
Bromine	81-1	19543	19864	19613	19673	0.86	cps
Bromine	81-2	593	707	657	652	8.71	cps
Cadmium	108-1	10991	11461	11325	11259	2.15	cps
Cadmium	106-1	19670	19670	19413	19584	0.76	cps
Cadmium	111-1	122274	124367	125378	124006	1.28	cps
Calcium	43-1	5551869	5689705	5693703	5645092	1.43	cps
Calcium	44-1	89495359	91302412	91475799	90757856	1.21	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	378892	377361	377577	377944	0.22	cps
Cobalt	59-2	315659	309372	310929	311987	1.05	cps
Copper	63-2	282437	284229	283174	283280	0.32	cps
Dysprosium	156-1	100	117	107	108	7.78	cps
Dysprosium	156-2	63	70	60	64	7.90	cps
Erbium	164-1	220	220	210	217	2.66	cps
Erbium	164-2	140	103	170	138	24.24	cps
Gadolinium	160-1	237	217	227	227	4.41	cps
Gadolinium	160-2	1300	1163	1287	1250	6.03	cps
Holmium	165-1	31152583	31590689	31537101	31426791	0.76	cps
Holmium	165-2	21554610	21373817	21294209	21407545	0.62	cps
Indium	115-1	25445498	25560572	25883210	25629760	0.89	cps
Indium	115-2	9117223	8997757	9014651	9043210	0.71	cps
Iron	56-2	850126121	844598494	846759667	847161427	0.33	cps
Iron	57-2	21206492	21007151	21112296	21108646	0.47	cps
Iron	54-2	45891553	46479563	46328919	46233345	0.66	cps
Krypton	83-1	323	293	303	307	4.98	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICSAB001 Instrumnet Name : P7
Client Sample ID : ICSAB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:11:18 DataFile Name : 016ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	405378	415066	424675	415040	2.32	cps
Lead	207-1	343334	347308	353203	347948	1.43	cps
Lead	208-1	1579681	1615752	1640637	1612024	1.90	cps
Lithium	6-1	2730100	2700935	2710047	2713694	0.55	cps
Magnesium	24-2	79470939	81631690	80058159	80386929	1.39	cps
Manganese	55-2	208758	208595	207707	208353	0.27	cps
Molybdenum	94-1	12531935	12794457	12880240	12735544	1.42	cps
Molybdenum	95-1	22215137	22525596	22672729	22471154	1.04	cps
Molybdenum	96-1	23859552	24517427	24454109	24277029	1.49	cps
Molybdenum	97-1	13635484	13995087	14077376	13902649	1.69	cps
Molybdenum	98-1	35222561	35921769	36102556	35748962	1.30	cps
Neodymium	150-1	103	110	127	113	10.60	cps
Neodymium	150-2	103	80	23	69	59.72	cps
Nickel	60-2	94116	94803	95642	94854	0.81	cps
Phosphorus	31-2	2393664	2418081	2414498	2408748	0.55	cps
Potassium	39-2	98922822	97962539	98125112	98336824	0.52	cps
Rhodium	103-1	23120310	23619412	23774755	23504826	1.45	cps
Rhodium	103-2	14137884	13922624	14155060	14071856	0.92	cps
Scandium	45-1	14010146	13945668	13995754	13983856	0.24	cps
Scandium	45-2	1261436	1242160	1270982	1258193	1.17	cps
Selenium	82-1	7256	7309	7242	7269	0.48	cps
Selenium	77-2	690	767	750	736	5.48	cps
Selenium	78-2	2770	2707	2927	2801	4.04	cps
Silicon	28-1	1212148	1209655	1193288	1205030	0.85	cps
Silver	107-1	547186	561115	565505	557935	1.71	cps
Silver	109-1	521187	531840	540549	531192	1.83	cps
Sodium	23-2	129774268	130199641	131186041	130386650	0.56	cps
Strontium	86-1	240157	246343	249586	245362	1.95	cps
Strontium	88-1	2091560	2145791	2134996	2124116	1.35	cps
Sulfur	34-1	7930764	7983359	8176148	8030090	1.61	cps
Terbium	159-1	31978940	32341748	32245404	32188697	0.58	cps
Terbium	159-2	21268219	21311125	21333131	21304158	0.15	cps
Thallium	203-1	419578	429371	439158	429369	2.28	cps
Thallium	205-1	1006487	1025298	1041390	1024392	1.71	cps
Tin	118-1	9974	10054	10264	10097	1.48	cps
Titanium	47-1	5371231	5488754	5459624	5439870	1.13	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : ICSAB001 Instrumnet Name : P7
Client Sample ID : ICSAB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:11:18 DataFile Name : 016ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1163	1087	1090	1113	3.89	cps
Vanadium	51-2	159506	160874	158637	159672	0.71	cps
Yttrium	89-1	34661915	35141014	35385935	35062955	1.05	cps
Yttrium	89-2	9086751	9052680	8975115	9038182	0.63	cps
Zinc	66-2	64703	65017	64662	64794	0.30	cps
Zirconium	90-1	2527	2437	2604	2522	3.31	cps
Zirconium	91-1	463	597	597	552	13.94	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCV001 Instrumnet Name : P7
Client Sample ID : CCV001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:14:21 DataFile Name : 017CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	25019603	25048475	24919904	24995994	0.27	cps
Antimony	121-1	11326854	11702942	11720046	11583281	1.92	cps
Arsenic	75-2	624179	621173	613625	619659	0.88	cps
Barium	135-1	13866323	13967679	14147139	13993714	1.02	cps
Barium	137-1	23590172	24335536	24339738	24088482	1.79	cps
Beryllium	9-1	1049489	1093164	1073621	1072091	2.04	cps
Bismuth	209-1	17690387	17788037	17823875	17767433	0.39	cps
Bismuth	209-2	13714504	13781019	13745868	13747131	0.24	cps
Bromine	81-1	17180	16429	16686	16765	2.28	cps
Bromine	81-2	197	187	133	172	19.77	cps
Cadmium	108-1	222840	227523	226318	225560	1.08	cps
Cadmium	106-1	321420	330018	326924	326121	1.34	cps
Cadmium	111-1	3001842	3108300	3109323	3073155	2.01	cps
Calcium	43-1	13966232	14500001	14468351	14311528	2.09	cps
Calcium	44-1	225011177	235861356	233327717	231400083	2.45	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4686302	4792905	4691055	4723421	1.27	cps
Cobalt	59-2	7694908	7602705	7595530	7631048	0.73	cps
Copper	63-2	55498129	54317053	53933638	54582940	1.49	cps
Dysprosium	156-1	567	610	637	604	5.84	cps
Dysprosium	156-2	1010	1053	1060	1041	2.61	cps
Erbium	164-1	763	717	687	722	5.35	cps
Erbium	164-2	493	470	457	473	3.92	cps
Gadolinium	160-1	640	577	587	601	5.66	cps
Gadolinium	160-2	1747	1550	1513	1603	7.83	cps
Holmium	165-1	32095935	32049364	32229890	32125063	0.29	cps
Holmium	165-2	21786683	21670704	21803745	21753711	0.33	cps
Indium	115-1	25772201	25800882	25692968	25755350	0.22	cps
Indium	115-2	8960367	9022743	8896780	8959963	0.70	cps
Iron	56-2	1058702944	1061256304	1058083691	1059347646	0.16	cps
Iron	57-2	26518850	26291170	26454569	26421529	0.44	cps
Iron	54-2	58116642	57819519	57936549	57957570	0.26	cps
Krypton	83-1	373	327	343	348	6.80	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCV001 Instrumnet Name : P7
Client Sample ID : CCV001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:14:21 DataFile Name : 017CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	39539030	40547449	41115944	40400807	1.98	cps
Lead	207-1	35067401	35876364	36234018	35725928	1.67	cps
Lead	208-1	158329630	162941304	164568220	161946385	2.00	cps
Lithium	6-1	2781722	2844686	2840649	2822353	1.25	cps
Magnesium	24-2	216512830	214395390	215552510	215486910	0.49	cps
Manganese	55-2	36220665	36252492	36187113	36220090	0.09	cps
Molybdenum	94-1	40284349	41708179	41447339	41146622	1.84	cps
Molybdenum	95-1	58706832	60557187	60191701	59818574	1.64	cps
Molybdenum	96-1	64397127	66449081	66570732	65805647	1.86	cps
Molybdenum	97-1	36326514	37655968	37473404	37151962	1.94	cps
Molybdenum	98-1	93911329	96771889	96634465	95772561	1.68	cps
Neodymium	150-1	897	910	937	914	2.23	cps
Neodymium	150-2	267	263	287	272	4.64	cps
Nickel	60-2	1965974	1903432	1920897	1930101	1.67	cps
Phosphorus	31-2	246328	246200	243622	245383	0.62	cps
Potassium	39-2	125288701	126023778	124610335	125307605	0.56	cps
Rhodium	103-1	23374414	23775615	23187435	23445822	1.28	cps
Rhodium	103-2	13794914	13856742	13739682	13797113	0.42	cps
Scandium	45-1	14318664	14332118	14477527	14376103	0.61	cps
Scandium	45-2	1273583	1292777	1280862	1282408	0.76	cps
Selenium	82-1	177796	182939	182269	181001	1.54	cps
Selenium	77-2	18245	18582	18632	18486	1.14	cps
Selenium	78-2	62130	61611	60798	61513	1.09	cps
Silicon	28-1	29462415	30424223	30459964	30115534	1.88	cps
Silver	107-1	14671182	14828256	14760544	14753327	0.53	cps
Silver	109-1	13983686	14153906	14063594	14067062	0.61	cps
Sodium	23-2	333002795	335556608	335636088	334731831	0.45	cps
Strontium	86-1	3610366	3740607	3736128	3695700	2.00	cps
Strontium	88-1	31226328	32172370	32114527	31837741	1.67	cps
Sulfur	34-1	1005738	1021590	1021179	1016169	0.89	cps
Terbium	159-1	32773320	32789185	32689349	32750618	0.16	cps
Terbium	159-2	21381746	21514968	21239396	21378703	0.64	cps
Thallium	203-1	10104152	10151296	10371790	10209080	1.40	cps
Thallium	205-1	23917409	24582519	24739368	24413099	1.79	cps
Tin	118-1	9396304	9600450	9645206	9547320	1.39	cps
Titanium	47-1	13553307	14189606	14066869	13936594	2.42	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCV001 Instrumnet Name : P7
Client Sample ID : CCV001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:14:21 DataFile Name : 017CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	31435491	32634410	32232172	32100691	1.90	cps
Vanadium	51-2	4111468	4157417	4137681	4135522	0.56	cps
Yttrium	89-1	35272524	35777346	35697646	35582505	0.76	cps
Yttrium	89-2	9136668	9126234	8957721	9073541	1.11	cps
Zinc	66-2	9057579	8892042	8862090	8937237	1.18	cps
Zirconium	90-1	19535201	20368916	20297335	20067150	2.30	cps
Zirconium	91-1	4329736	4490655	4485786	4435392	2.06	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB001 Instrumnet Name : P7
Client Sample ID : CCB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:17:01 DataFile Name : 018CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1137	947	977	1020	10.01	cps
Antimony	121-1	5321	5204	6268	5598	10.42	cps
Arsenic	75-2	43	63	57	54	18.71	cps
Barium	135-1	3094	1313	960	1789	63.92	cps
Barium	137-1	5531	2594	1740	3288	60.48	cps
Beryllium	9-1	422	283	144	283	49.02	cps
Bismuth	209-1	18568820	18751133	19196593	18838849	1.71	cps
Bismuth	209-2	15034048	15213967	14597703	14948573	2.12	cps
Bromine	81-1	16322	15985	16586	16298	1.85	cps
Bromine	81-2	133	130	200	154	25.57	cps
Cadmium	108-1	90	60	47	66	33.85	cps
Cadmium	106-1	9660	9640	9497	9599	0.93	cps
Cadmium	111-1	7489	7106	6862	7152	4.42	cps
Calcium	43-1	9366	7208	6975	7850	16.80	cps
Calcium	44-1	164870	135388	126845	142368	14.01	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6665	6645	6598	6636	0.52	cps
Cobalt	59-2	517	437	330	428	21.89	cps
Copper	63-2	3984	3997	3821	3934	2.50	cps
Dysprosium	156-1	10	17	33	20	60.08	cps
Dysprosium	156-2	20	20	13	18	21.66	cps
Erbium	164-1	157	120	167	148	16.63	cps
Erbium	164-2	83	60	90	78	20.25	cps
Gadolinium	160-1	167	100	173	147	27.65	cps
Gadolinium	160-2	1277	1307	1280	1288	1.28	cps
Holmium	165-1	30597296	31442170	31577152	31205540	1.70	cps
Holmium	165-2	21541610	21503312	20915904	21320275	1.65	cps
Indium	115-1	25999853	26796585	26708281	26501573	1.65	cps
Indium	115-2	9398464	9379841	9028981	9269095	2.25	cps
Iron	56-2	70996	66694	63868	67186	5.34	cps
Iron	57-2	2614	2257	2464	2445	7.33	cps
Iron	54-2	6795	6582	6658	6678	1.62	cps
Krypton	83-1	280	263	290	278	4.85	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB001 Instrumnet Name : P7
Client Sample ID : CCB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:17:01 DataFile Name : 018CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	11198	6138	4678	7338	46.63	cps
Lead	207-1	9437	5328	4051	6272	44.87	cps
Lead	208-1	44420	24345	18672	29146	46.42	cps
Lithium	6-1	2909338	2948633	2991760	2949911	1.40	cps
Magnesium	24-2	8546	7999	7012	7852	9.90	cps
Manganese	55-2	14374	14160	13816	14117	1.99	cps
Molybdenum	94-1	10324	5454	4417	6732	46.85	cps
Molybdenum	95-1	13140	6155	4324	7873	59.09	cps
Molybdenum	96-1	14855	6845	5208	8969	57.56	cps
Molybdenum	97-1	8379	3831	2887	5032	58.36	cps
Molybdenum	98-1	21226	10347	6982	12852	57.93	cps
Neodymium	150-1	7	13	23	14	58.06	cps
Neodymium	150-2	13	23	17	18	28.64	cps
Nickel	60-2	1190	1117	1103	1137	4.11	cps
Phosphorus	31-2	500	533	537	523	3.87	cps
Potassium	39-2	92227	91030	91848	91702	0.67	cps
Rhodium	103-1	24525330	25026399	25105245	24885658	1.26	cps
Rhodium	103-2	15205181	15115649	14444799	14921876	2.79	cps
Scandium	45-1	13790014	13917261	13994857	13900711	0.74	cps
Scandium	45-2	1292423	1265483	1215726	1257878	3.09	cps
Selenium	82-1	477	427	427	444	6.48	cps
Selenium	77-2	0	0	7	2	173.21	cps
Selenium	78-2	523	513	473	503	5.26	cps
Silicon	28-1	823522	825010	819958	822830	0.32	cps
Silver	107-1	3287	1567	1263	2039	53.52	cps
Silver	109-1	3314	1537	1057	1969	60.38	cps
Sodium	23-2	88908	87383	87215	87835	1.06	cps
Strontium	86-1	1527	1123	1023	1225	21.76	cps
Strontium	88-1	9807	6095	5031	6977	35.93	cps
Sulfur	34-1	249522	251825	251060	250802	0.47	cps
Terbium	159-1	31397751	32020475	31910330	31776185	1.05	cps
Terbium	159-2	21763858	21417385	20776450	21319231	2.35	cps
Thallium	203-1	3374	2524	2057	2651	25.18	cps
Thallium	205-1	8066	5411	4668	6048	29.54	cps
Tin	118-1	10267	9336	8933	9512	7.19	cps
Titanium	47-1	3067	1433	923	1808	61.94	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB001 Instrumnet Name : P7
Client Sample ID : CCB001 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:17:01 DataFile Name : 018CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	6578	2744	1583	3635	71.91	cps
Vanadium	51-2	153	87	110	117	29.00	cps
Yttrium	89-1	34336742	34760850	35176292	34757961	1.21	cps
Yttrium	89-2	9175336	9134598	8732264	9014066	2.72	cps
Zinc	66-2	13409	13456	13786	13551	1.52	cps
Zirconium	90-1	8232	5921	5905	6686	20.03	cps
Zirconium	91-1	1760	1277	1347	1461	17.88	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165157BL Instrumnet Name : P7
Client Sample ID : PBW157 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:20:18 DataFile Name : 019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	690	723	740	718	3.55	cps
Antimony	121-1	993	1190	1603	1262	24.67	cps
Arsenic	75-2	13	23	17	18	28.64	cps
Barium	135-1	347	333	373	351	5.80	cps
Barium	137-1	583	643	537	588	9.10	cps
Beryllium	9-1	117	111	111	113	2.84	cps
Bismuth	209-1	18707074	18911510	18995945	18871510	0.79	cps
Bismuth	209-2	15370244	15268723	15218379	15285782	0.51	cps
Bromine	81-1	17254	17557	16630	17147	2.76	cps
Bromine	81-2	130	93	137	120	19.45	cps
Cadmium	108-1	17	33	37	29	37.08	cps
Cadmium	106-1	9813	9803	9830	9816	0.14	cps
Cadmium	111-1	7001	6916	6939	6952	0.64	cps
Calcium	43-1	6415	6488	6578	6494	1.26	cps
Calcium	44-1	120242	122829	122006	121692	1.09	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6925	6652	6505	6694	3.19	cps
Cobalt	59-2	313	300	287	300	4.44	cps
Copper	63-2	2847	2817	2820	2828	0.58	cps
Dysprosium	156-1	23	27	20	23	14.29	cps
Dysprosium	156-2	20	10	27	19	44.42	cps
Erbium	164-1	143	103	150	132	19.09	cps
Erbium	164-2	67	77	77	73	7.87	cps
Gadolinium	160-1	107	160	120	129	21.53	cps
Gadolinium	160-2	1217	1200	1297	1238	4.18	cps
Holmium	165-1	30881869	31308326	31349599	31179931	0.83	cps
Holmium	165-2	22074230	22030785	21619481	21908165	1.15	cps
Indium	115-1	26430869	26879608	26826637	26712372	0.92	cps
Indium	115-2	9514564	9443067	9498234	9485288	0.39	cps
Iron	56-2	47371	46348	51899	48539	6.09	cps
Iron	57-2	2167	2077	2204	2149	3.03	cps
Iron	54-2	6151	5481	5641	5758	6.08	cps
Krypton	83-1	300	253	283	279	8.48	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165157BL Instrumnet Name : P7
Client Sample ID : PBW157 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:20:18 DataFile Name : 019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3060	2817	2627	2835	7.66	cps
Lead	207-1	2590	2224	2380	2398	7.67	cps
Lead	208-1	11682	10678	10882	11081	4.79	cps
Lithium	6-1	2926383	2997756	2953385	2959174	1.22	cps
Magnesium	24-2	4697	4691	4627	4672	0.83	cps
Manganese	55-2	14647	14127	14337	14370	1.82	cps
Molybdenum	94-1	1253	1193	1367	1271	6.93	cps
Molybdenum	95-1	653	507	697	619	16.09	cps
Molybdenum	96-1	893	747	987	876	13.82	cps
Molybdenum	97-1	383	360	440	394	10.43	cps
Molybdenum	98-1	1037	940	933	970	5.96	cps
Neodymium	150-1	20	23	30	24	20.83	cps
Neodymium	150-2	20	17	10	16	32.73	cps
Nickel	60-2	1127	1227	1193	1182	4.31	cps
Phosphorus	31-2	413	500	483	466	9.88	cps
Potassium	39-2	86400	85991	86534	86308	0.33	cps
Rhodium	103-1	24974904	25117650	25553835	25215463	1.20	cps
Rhodium	103-2	15334576	15214989	15364753	15304773	0.52	cps
Scandium	45-1	14187297	14289473	14405326	14294032	0.76	cps
Scandium	45-2	1276013	1288861	1322201	1295692	1.84	cps
Selenium	82-1	448	503	444	465	7.15	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	553	467	480	500	9.33	cps
Silicon	28-1	800365	807034	810211	805870	0.62	cps
Silver	107-1	397	393	333	374	9.52	cps
Silver	109-1	353	343	260	319	16.07	cps
Sodium	23-2	79393	79021	78753	79056	0.41	cps
Strontium	86-1	837	980	907	908	7.90	cps
Strontium	88-1	3964	4117	3761	3947	4.53	cps
Sulfur	34-1	265757	265211	265971	265646	0.15	cps
Terbium	159-1	31758986	32188040	32250245	32065757	0.83	cps
Terbium	159-2	21764064	22135811	21486502	21795459	1.49	cps
Thallium	203-1	1347	1183	1247	1259	6.54	cps
Thallium	205-1	3024	3040	2867	2977	3.21	cps
Tin	118-1	13263	13210	12749	13074	2.16	cps
Titanium	47-1	303	273	213	263	17.40	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

PB165157BL

Instrumnet Name :

P7

Client Sample ID :

PBW157

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:20:18

DataFile Name :

019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	220	123	90	144	46.74	cps
Vanadium	51-2	60	47	60	56	13.85	cps
Yttrium	89-1	34781621	35236725	35135520	35051289	0.68	cps
Yttrium	89-2	9313218	9276702	9253732	9281218	0.32	cps
Zinc	66-2	14274	13967	14457	14232	1.74	cps
Zirconium	90-1	2584	2697	2927	2736	6.40	cps
Zirconium	91-1	460	567	617	548	14.61	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165157BS Instrumnet Name : P7
Client Sample ID : LCS157 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:23:31 DataFile Name : 020LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	22630	22814	22917	22787	0.64	cps
Antimony	121-1	97024	99813	101390	99409	2.22	cps
Arsenic	75-2	2507	2834	2670	2670	6.12	cps
Barium	135-1	115094	118242	121012	118116	2.51	cps
Barium	137-1	201554	205796	209930	205760	2.04	cps
Beryllium	9-1	4651	4912	4784	4782	2.73	cps
Bismuth	209-1	18538788	18953259	18956693	18816247	1.28	cps
Bismuth	209-2	15082748	15162354	15157692	15134264	0.30	cps
Bromine	81-1	17380	16616	16630	16875	2.59	cps
Bromine	81-2	97	97	110	101	7.61	cps
Cadmium	108-1	960	1087	957	1001	7.40	cps
Cadmium	106-1	11438	11655	10864	11319	3.61	cps
Cadmium	111-1	19693	20530	20455	20226	2.29	cps
Calcium	43-1	68507	70121	71269	69966	1.98	cps
Calcium	44-1	1121422	1159092	1165375	1148630	2.07	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	49247	49611	50484	49781	1.28	cps
Cobalt	59-2	35044	34894	34770	34903	0.39	cps
Copper	63-2	54482	55319	55349	55050	0.89	cps
Dysprosium	156-1	40	50	37	42	16.43	cps
Dysprosium	156-2	37	40	30	36	14.32	cps
Erbium	164-1	150	157	133	147	8.19	cps
Erbium	164-2	110	63	120	98	30.94	cps
Gadolinium	160-1	143	127	163	144	12.71	cps
Gadolinium	160-2	1253	1317	1417	1329	6.20	cps
Holmium	165-1	30793321	31288445	31349866	31143877	0.98	cps
Holmium	165-2	22177876	21882455	21802657	21954329	0.90	cps
Indium	115-1	26194599	27012012	26993913	26733508	1.75	cps
Indium	115-2	9633649	9570139	9516860	9573550	0.61	cps
Iron	56-2	4020973	4023994	3963287	4002752	0.85	cps
Iron	57-2	103913	104413	104303	104209	0.25	cps
Iron	54-2	230440	228667	229082	229396	0.40	cps
Krypton	83-1	257	253	260	257	1.30	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165157BS Instrumnet Name : P7
Client Sample ID : LCS157 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:23:31 DataFile Name : 020LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	38414	39414	38708	38845	1.32	cps
Lead	207-1	33344	34721	34711	34259	2.31	cps
Lead	208-1	152721	158645	158638	156668	2.18	cps
Lithium	6-1	3007842	3037029	3038923	3027932	0.58	cps
Magnesium	24-2	933288	931980	936873	934047	0.27	cps
Manganese	55-2	31957	31486	31199	31548	1.21	cps
Molybdenum	94-1	101744	105825	105930	104499	2.28	cps
Molybdenum	95-1	122720	126211	126995	125309	1.82	cps
Molybdenum	96-1	136981	140649	142502	140044	2.01	cps
Molybdenum	97-1	77038	80456	80168	79221	2.39	cps
Molybdenum	98-1	196271	203574	208101	202649	2.95	cps
Neodymium	150-1	13	30	27	23	37.81	cps
Neodymium	150-2	17	10	13	13	25.01	cps
Nickel	60-2	10040	10017	10354	10137	1.86	cps
Phosphorus	31-2	447	463	473	461	2.92	cps
Potassium	39-2	1199333	1188954	1191179	1193155	0.46	cps
Rhodium	103-1	25289380	25581609	25739286	25536758	0.89	cps
Rhodium	103-2	15370964	15287046	15336558	15331522	0.28	cps
Scandium	45-1	14340638	14566319	14598510	14501822	0.97	cps
Scandium	45-2	1295507	1309136	1324216	1309620	1.10	cps
Selenium	82-1	4185	4450	4223	4286	3.34	cps
Selenium	77-2	413	400	397	403	2.19	cps
Selenium	78-2	1880	1760	1917	1852	4.42	cps
Silicon	28-1	1280694	1320401	1321800	1307631	1.78	cps
Silver	107-1	63445	65872	67643	65653	3.21	cps
Silver	109-1	60094	63280	64482	62619	3.62	cps
Sodium	23-2	1570011	1555383	1550692	1558695	0.65	cps
Strontium	86-1	16603	16966	16926	16832	1.18	cps
Strontium	88-1	137073	141886	142351	140437	2.08	cps
Sulfur	34-1	276835	278064	277317	277406	0.22	cps
Terbium	159-1	31887777	32408709	32361430	32219305	0.89	cps
Terbium	159-2	21656397	21616590	21537970	21603652	0.28	cps
Thallium	203-1	44911	45345	46001	45419	1.21	cps
Thallium	205-1	105475	107638	109157	107423	1.72	cps
Tin	118-1	8176	8393	8546	8371	2.22	cps
Titanium	47-1	29222	30614	30457	30098	2.53	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

PB165157BS

Instrumnet Name :

P7

Client Sample ID :

LCS157

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:23:31

DataFile Name :

020LCSE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	128535	131794	131526	130619	1.38	cps
Vanadium	51-2	91002	90472	89775	90416	0.68	cps
Yttrium	89-1	35457273	35640150	35777654	35625026	0.45	cps
Yttrium	89-2	9266790	9303779	9226280	9265616	0.42	cps
Zinc	66-2	35509	35105	34613	35076	1.28	cps
Zirconium	90-1	87224	90443	90275	89314	2.03	cps
Zirconium	91-1	19393	19967	20084	19815	1.87	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165158BL Instrumnet Name : P7
Client Sample ID : PBW158 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:26:45 DataFile Name : 021CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	697	633	600	643	7.63	cps
Antimony	121-1	380	420	590	463	24.07	cps
Arsenic	75-2	20	23	27	23	14.29	cps
Barium	135-1	377	363	357	366	2.79	cps
Barium	137-1	607	630	707	648	8.08	cps
Beryllium	9-1	83	100	133	106	24.12	cps
Bismuth	209-1	18533398	18610610	18732153	18625387	0.54	cps
Bismuth	209-2	14987179	15015650	14862577	14955135	0.54	cps
Bromine	81-1	17537	17714	17607	17619	0.51	cps
Bromine	81-2	120	97	187	134	34.74	cps
Cadmium	108-1	43	13	27	28	54.11	cps
Cadmium	106-1	9970	10027	9700	9899	1.76	cps
Cadmium	111-1	7029	7089	6838	6985	1.88	cps
Calcium	43-1	6808	6642	6942	6797	2.21	cps
Calcium	44-1	120682	123182	122980	122281	1.14	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6912	7095	6808	6938	2.09	cps
Cobalt	59-2	330	293	267	297	10.72	cps
Copper	63-2	2700	2667	2767	2711	1.88	cps
Dysprosium	156-1	20	7	20	16	49.47	cps
Dysprosium	156-2	3	17	10	10	66.70	cps
Erbium	164-1	140	120	127	129	7.90	cps
Erbium	164-2	110	90	127	109	16.86	cps
Gadolinium	160-1	140	127	167	144	14.10	cps
Gadolinium	160-2	1290	1213	1403	1302	7.34	cps
Holmium	165-1	31102350	31351370	31342470	31265397	0.45	cps
Holmium	165-2	21571443	21984558	21318019	21624673	1.56	cps
Indium	115-1	26705345	27104117	26704003	26837822	0.86	cps
Indium	115-2	9514502	9487246	9401272	9467673	0.62	cps
Iron	56-2	46358	45599	45552	45836	0.99	cps
Iron	57-2	2107	1960	2064	2043	3.69	cps
Iron	54-2	5798	5835	5668	5767	1.52	cps
Krypton	83-1	277	243	290	270	8.90	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165158BL Instrumnet Name : P7
Client Sample ID : PBW158 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:26:45 DataFile Name : 021CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2664	2577	2457	2566	4.05	cps
Lead	207-1	2047	2167	2294	2169	5.69	cps
Lead	208-1	10185	10058	10195	10146	0.75	cps
Lithium	6-1	3048111	3019043	3072559	3046571	0.88	cps
Magnesium	24-2	4514	4667	4267	4483	4.50	cps
Manganese	55-2	14150	14561	14063	14258	1.86	cps
Molybdenum	94-1	967	857	1037	953	9.52	cps
Molybdenum	95-1	303	353	283	313	11.51	cps
Molybdenum	96-1	483	497	527	502	4.42	cps
Molybdenum	97-1	230	177	180	196	15.28	cps
Molybdenum	98-1	440	447	487	458	5.51	cps
Neodymium	150-1	30	13	20	21	39.75	cps
Neodymium	150-2	7	7	0	4	86.60	cps
Nickel	60-2	1213	1063	1160	1146	6.64	cps
Phosphorus	31-2	477	497	440	471	6.10	cps
Potassium	39-2	82596	83212	83832	83213	0.74	cps
Rhodium	103-1	25419266	25836275	25902490	25719344	1.02	cps
Rhodium	103-2	15221638	15217164	15160933	15199912	0.22	cps
Scandium	45-1	14318580	14601046	14672518	14530715	1.29	cps
Scandium	45-2	1311427	1312617	1301487	1308510	0.47	cps
Selenium	82-1	472	475	351	432	16.37	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	477	513	513	501	4.22	cps
Silicon	28-1	824784	825516	824844	825048	0.05	cps
Silver	107-1	417	340	380	379	10.12	cps
Silver	109-1	310	330	287	309	7.02	cps
Sodium	23-2	71578	72134	72412	72042	0.59	cps
Strontium	86-1	990	817	940	916	9.74	cps
Strontium	88-1	3841	4021	3941	3934	2.29	cps
Sulfur	34-1	283128	281102	279612	281281	0.63	cps
Terbium	159-1	32211868	32385049	32198912	32265276	0.32	cps
Terbium	159-2	21391059	21492022	21523586	21468889	0.32	cps
Thallium	203-1	757	687	730	724	4.88	cps
Thallium	205-1	1963	1903	1727	1865	6.60	cps
Tin	118-1	7869	8016	8176	8020	1.91	cps
Titanium	47-1	250	200	247	232	12.04	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

PB165158BL

Instrumnet Name :

P7

Client Sample ID :

PBW158

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:26:45

DataFile Name :

021CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	123	53	67	81	45.83	cps
Vanadium	51-2	97	50	80	76	31.30	cps
Yttrium	89-1	36044989	35998696	35970592	36004759	0.10	cps
Yttrium	89-2	9244049	9209619	9057195	9170288	1.08	cps
Zinc	66-2	14480	13626	14250	14119	3.13	cps
Zirconium	90-1	1990	2290	2527	2269	11.86	cps
Zirconium	91-1	403	473	443	440	7.98	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165158BS Instrumnet Name : P7
Client Sample ID : LCS158 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:29:59 DataFile Name : 022CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	24062	23862	23698	23874	0.76	cps
Antimony	121-1	95884	99779	101032	98898	2.71	cps
Arsenic	75-2	2800	2710	2714	2741	1.86	cps
Barium	135-1	117171	118521	120743	118812	1.52	cps
Barium	137-1	201616	206023	210119	205919	2.07	cps
Beryllium	9-1	5090	5045	5212	5116	1.69	cps
Bismuth	209-1	18409671	18559663	18488589	18485974	0.41	cps
Bismuth	209-2	14769631	14726550	14975441	14823874	0.90	cps
Bromine	81-1	17831	17554	18265	17883	2.00	cps
Bromine	81-2	90	100	80	90	11.11	cps
Cadmium	108-1	833	917	980	910	8.08	cps
Cadmium	106-1	10998	10988	11231	11072	1.24	cps
Cadmium	111-1	19670	19962	20685	20106	2.60	cps
Calcium	43-1	68507	71745	71946	70733	2.73	cps
Calcium	44-1	1127324	1170841	1177653	1158606	2.36	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	50511	49554	50628	50231	1.17	cps
Cobalt	59-2	34867	34693	35001	34854	0.44	cps
Copper	63-2	54281	55907	55195	55128	1.48	cps
Dysprosium	156-1	17	40	33	30	40.05	cps
Dysprosium	156-2	20	50	50	40	43.30	cps
Erbium	164-1	130	107	110	116	10.92	cps
Erbium	164-2	100	90	110	100	10.00	cps
Gadolinium	160-1	153	180	137	157	13.95	cps
Gadolinium	160-2	1277	1363	1357	1332	3.62	cps
Holmium	165-1	30601490	30837127	31224279	30887632	1.02	cps
Holmium	165-2	21438097	21363885	21494237	21432073	0.31	cps
Indium	115-1	26664383	26808491	26830031	26767635	0.34	cps
Indium	115-2	9289911	9469375	9471910	9410399	1.11	cps
Iron	56-2	4041950	3970755	4010102	4007602	0.89	cps
Iron	57-2	104278	103839	104503	104207	0.32	cps
Iron	54-2	232098	230951	230389	231146	0.38	cps
Krypton	83-1	280	270	270	273	2.11	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : PB165158BS Instrumnet Name : P7
Client Sample ID : LCS158 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:29:59 DataFile Name : 022CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	37652	39073	39267	38664	2.28	cps
Lead	207-1	33147	33905	34210	33754	1.62	cps
Lead	208-1	150193	154668	155472	153444	1.85	cps
Lithium	6-1	3055947	3043555	3022636	3040713	0.55	cps
Magnesium	24-2	950593	941051	940426	944023	0.60	cps
Manganese	55-2	30999	30748	31486	31078	1.21	cps
Molybdenum	94-1	102781	104453	106020	104418	1.55	cps
Molybdenum	95-1	122770	127856	127761	126129	2.31	cps
Molybdenum	96-1	136665	140561	142725	139984	2.19	cps
Molybdenum	97-1	76623	80399	80279	79100	2.71	cps
Molybdenum	98-1	198808	206110	205470	203463	1.99	cps
Neodymium	150-1	37	43	33	38	13.48	cps
Neodymium	150-2	13	7	20	13	49.99	cps
Nickel	60-2	10270	10190	10150	10204	0.60	cps
Phosphorus	31-2	553	413	530	499	15.04	cps
Potassium	39-2	1227960	1216483	1206902	1217115	0.87	cps
Rhodium	103-1	25415353	25428705	25515588	25453215	0.21	cps
Rhodium	103-2	15050697	15021134	15194759	15088864	0.62	cps
Scandium	45-1	14281289	14693034	14739673	14571332	1.73	cps
Scandium	45-2	1331329	1300569	1294134	1308677	1.52	cps
Selenium	82-1	4395	4341	4428	4388	1.01	cps
Selenium	77-2	440	383	380	401	8.41	cps
Selenium	78-2	1987	1820	1770	1859	6.10	cps
Silicon	28-1	1276717	1318399	1348670	1314596	2.75	cps
Silver	107-1	63723	66853	67770	66115	3.21	cps
Silver	109-1	61239	64332	64342	63304	2.83	cps
Sodium	23-2	1577419	1556018	1567337	1566925	0.68	cps
Strontium	86-1	15915	17244	17367	16842	4.78	cps
Strontium	88-1	139212	143845	145764	142940	2.36	cps
Sulfur	34-1	291057	290846	291934	291279	0.20	cps
Terbium	159-1	31365515	31999518	31962547	31775860	1.12	cps
Terbium	159-2	21052491	21560240	21063249	21225326	1.37	cps
Thallium	203-1	43429	44235	45479	44381	2.33	cps
Thallium	205-1	103043	105945	106795	105261	1.87	cps
Tin	118-1	8236	8937	8449	8541	4.21	cps
Titanium	47-1	29612	31152	32288	31017	4.33	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

PB165158BS

Instrumnet Name :

P7

Client Sample ID :

LCS158

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:29:59

DataFile Name :

022CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	125303	130947	130884	129045	2.51	cps
Vanadium	51-2	92226	90653	90787	91222	0.96	cps
Yttrium	89-1	35390647	35656732	35678098	35575159	0.45	cps
Yttrium	89-2	9214983	9270849	9154975	9213602	0.63	cps
Zinc	66-2	35706	34934	35362	35334	1.09	cps
Zirconium	90-1	87221	90208	89980	89136	1.87	cps
Zirconium	91-1	18922	19540	20414	19625	3.82	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4879-22 Instrumnet Name : P7
Client Sample ID : E2A11 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:33:13 DataFile Name : 023SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1042086	1044004	1036435	1040842	0.38	cps
Antimony	121-1	2707	2867	3040	2871	5.81	cps
Arsenic	75-2	5024	4804	4841	4890	2.41	cps
Barium	135-1	299407	300591	299294	299764	0.24	cps
Barium	137-1	513064	520601	524457	519374	1.12	cps
Beryllium	9-1	589	589	478	552	11.63	cps
Bismuth	209-1	18133849	18536416	18558601	18409622	1.30	cps
Bismuth	209-2	14680764	14311851	14698683	14563766	1.50	cps
Bromine	81-1	24580	24377	24731	24563	0.72	cps
Bromine	81-2	1413	1327	1410	1383	3.55	cps
Cadmium	108-1	87	150	143	127	27.47	cps
Cadmium	106-1	11051	10484	10651	10729	2.72	cps
Cadmium	111-1	8745	8377	8609	8577	2.17	cps
Calcium	43-1	12924859	13005529	12971341	12967243	0.31	cps
Calcium	44-1	209617784	210319764	207263144	209066897	0.77	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	55983	57737	56341	56687	1.63	cps
Cobalt	59-2	67916	68033	67494	67814	0.42	cps
Copper	63-2	93905	93184	93979	93690	0.47	cps
Dysprosium	156-1	38640	39221	38479	38780	1.01	cps
Dysprosium	156-2	30349	29969	31058	30459	1.81	cps
Erbium	164-1	34486	34519	35839	34948	2.21	cps
Erbium	164-2	23400	23423	23907	23577	1.22	cps
Gadolinium	160-1	39338	40201	40786	40108	1.82	cps
Gadolinium	160-2	29581	29368	29434	29461	0.37	cps
Holmium	165-1	31806711	32586539	32373624	32255625	1.25	cps
Holmium	165-2	22092873	21555830	22337222	21995308	1.82	cps
Indium	115-1	26717828	27469765	27125532	27104375	1.39	cps
Indium	115-2	9415138	9357329	9699675	9490714	1.93	cps
Iron	56-2	76854034	73563949	73758067	74725350	2.47	cps
Iron	57-2	2144889	2091556	2124940	2120462	1.27	cps
Iron	54-2	4143762	4108712	4089437	4113970	0.67	cps
Krypton	83-1	357	380	367	368	3.18	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4879-22 Instrumnet Name : P7
Client Sample ID : E2A11 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:33:13 DataFile Name : 023SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	139807	142838	143711	142118	1.44	cps
Lead	207-1	112312	114064	114134	113503	0.91	cps
Lead	208-1	529373	537724	539910	535669	1.04	cps
Lithium	6-1	2975137	3057743	3016067	3016316	1.37	cps
Magnesium	24-2	65645067	63394866	63468284	64169406	1.99	cps
Manganese	55-2	2689980	2559153	2548984	2599372	3.03	cps
Molybdenum	94-1	15095	15175	15395	15221	1.02	cps
Molybdenum	95-1	13036	13006	12896	12979	0.57	cps
Molybdenum	96-1	15805	16046	16042	15964	0.86	cps
Molybdenum	97-1	8006	7986	8149	8047	1.11	cps
Molybdenum	98-1	20615	20474	21132	20740	1.67	cps
Neodymium	150-1	58554	59947	59223	59241	1.18	cps
Neodymium	150-2	34679	34505	33804	34330	1.35	cps
Nickel	60-2	33788	34182	33805	33925	0.66	cps
Phosphorus	31-2	11314	11381	11371	11355	0.32	cps
Potassium	39-2	513532	507460	510492	510495	0.59	cps
Rhodium	103-1	25098859	25516360	25740146	25451788	1.28	cps
Rhodium	103-2	14953393	14623073	15053821	14876762	1.51	cps
Scandium	45-1	15163176	15147859	15127160	15146065	0.12	cps
Scandium	45-2	1356322	1356880	1297414	1336872	2.56	cps
Selenium	82-1	600	626	538	588	7.68	cps
Selenium	77-2	100	150	140	130	20.35	cps
Selenium	78-2	547	560	547	551	1.40	cps
Silicon	28-1	23987962	23526207	23752117	23755429	0.97	cps
Silver	107-1	2214	1827	1867	1969	10.80	cps
Silver	109-1	2017	1620	1570	1736	14.10	cps
Sodium	23-2	415422	417431	408249	413701	1.17	cps
Strontium	86-1	1916382	1908474	1928789	1917882	0.53	cps
Strontium	88-1	16272153	16554543	16710047	16512247	1.34	cps
Sulfur	34-1	411725	419180	419881	416929	1.08	cps
Terbium	159-1	32658985	33438531	33536474	33211330	1.45	cps
Terbium	159-2	21568501	22252661	21763501	21861554	1.61	cps
Thallium	203-1	4484	4561	5701	4915	13.87	cps
Thallium	205-1	10264	11185	12809	11419	11.29	cps
Tin	118-1	14087	14147	14437	14224	1.32	cps
Titanium	47-1	116648	117609	115772	116677	0.79	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4879-22 Instrumnet Name : P7
Client Sample ID : E2A11 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:33:13 DataFile Name : 023SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	94656	86083	86569	89103	5.40	cps
Vanadium	51-2	70805	70437	72218	71153	1.32	cps
Yttrium	89-1	36725634	37154214	37644594	37174814	1.24	cps
Yttrium	89-2	9420909	9433119	9465251	9439760	0.24	cps
Zinc	66-2	65011	64053	64207	64424	0.80	cps
Zirconium	90-1	21095	21372	22010	21492	2.18	cps
Zirconium	91-1	4694	4781	5044	4840	3.77	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-01 Instrumnet Name : P7
Client Sample ID : E29Z1 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:36:21 DataFile Name : 024SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	10381	9724	9921	10009	3.37	cps
Antimony	121-1	2020	2217	1993	2077	5.87	cps
Arsenic	75-2	1927	1963	1940	1943	0.96	cps
Barium	135-1	531908	530648	520797	527784	1.15	cps
Barium	137-1	918136	916442	907805	914128	0.61	cps
Beryllium	9-1	161	128	94	128	26.09	cps
Bismuth	209-1	19899997	19844846	19475786	19740210	1.17	cps
Bismuth	209-2	15430829	15047138	15111739	15196569	1.35	cps
Bromine	81-1	34804	38644	40977	38142	8.17	cps
Bromine	81-2	4844	4904	5078	4942	2.45	cps
Cadmium	108-1	40	43	60	48	22.43	cps
Cadmium	106-1	11194	10834	10881	10970	1.79	cps
Cadmium	111-1	7988	7690	7715	7798	2.12	cps
Calcium	43-1	4954626	4853627	4788316	4865523	1.72	cps
Calcium	44-1	78159084	76836516	76440576	77145392	1.17	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	27465	27168	27171	27268	0.63	cps
Cobalt	59-2	2667	2827	2820	2771	3.27	cps
Copper	63-2	12068	12068	12165	12101	0.46	cps
Dysprosium	156-1	450	427	367	414	10.37	cps
Dysprosium	156-2	267	320	257	281	12.11	cps
Erbium	164-1	267	253	233	251	6.68	cps
Erbium	164-2	147	170	180	166	10.33	cps
Gadolinium	160-1	477	613	527	539	12.83	cps
Gadolinium	160-2	1717	1520	1687	1641	6.46	cps
Holmium	165-1	34037919	33266250	33188130	33497433	1.40	cps
Holmium	165-2	22469996	22276507	22627991	22458164	0.78	cps
Indium	115-1	29025699	28579389	28509560	28704882	0.98	cps
Indium	115-2	9836174	9963620	9972884	9924226	0.77	cps
Iron	56-2	539480	537059	536918	537819	0.27	cps
Iron	57-2	102053	104530	103628	103404	1.21	cps
Iron	54-2	32929	32245	32722	32632	1.08	cps
Krypton	83-1	283	273	213	257	14.75	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-01 Instrumnet Name : P7
Client Sample ID : E29Z1 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:36:21 DataFile Name : 024SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	6028	5228	5441	5566	7.45	cps
Lead	207-1	4918	4541	4301	4586	6.78	cps
Lead	208-1	22931	20673	20826	21477	5.87	cps
Lithium	6-1	3256439	3104517	3091184	3150713	2.91	cps
Magnesium	24-2	27108267	26648761	27256508	27004512	1.17	cps
Manganese	55-2	158508	156517	156252	157092	0.79	cps
Molybdenum	94-1	41468	41097	41234	41267	0.45	cps
Molybdenum	95-1	71323	69353	68684	69787	1.97	cps
Molybdenum	96-1	77558	76586	75708	76617	1.21	cps
Molybdenum	97-1	44551	44166	43548	44088	1.15	cps
Molybdenum	98-1	115690	113913	113305	114303	1.08	cps
Neodymium	150-1	163	160	200	174	12.72	cps
Neodymium	150-2	80	87	83	83	4.00	cps
Nickel	60-2	10227	10023	10240	10164	1.20	cps
Phosphorus	31-2	1647	1660	1807	1705	5.21	cps
Potassium	39-2	4328191	4378616	4362689	4356499	0.59	cps
Rhodium	103-1	27278860	26729948	26291674	26766827	1.85	cps
Rhodium	103-2	15551976	15632033	15418336	15534115	0.70	cps
Scandium	45-1	15807764	15646869	15665521	15706718	0.56	cps
Scandium	45-2	1370435	1374500	1371947	1372294	0.15	cps
Selenium	82-1	515	448	511	492	7.73	cps
Selenium	77-2	3	10	10	8	49.52	cps
Selenium	78-2	537	590	590	572	5.38	cps
Silicon	28-1	52704241	51355998	51003806	51688015	1.74	cps
Silver	107-1	467	487	460	471	2.95	cps
Silver	109-1	347	250	353	317	18.26	cps
Sodium	23-2	20965619	20710698	20955376	20877231	0.69	cps
Strontium	86-1	19630692	19647148	19231766	19503202	1.21	cps
Strontium	88-1	170323877	170495864	167294524	169371422	1.06	cps
Sulfur	34-1	1808121	1808686	1760656	1792488	1.54	cps
Terbium	159-1	35521670	34629760	34649119	34933517	1.46	cps
Terbium	159-2	22663745	22370280	22141763	22391929	1.17	cps
Thallium	203-1	1613	1507	1437	1519	5.86	cps
Thallium	205-1	4024	3714	3210	3649	11.25	cps
Tin	118-1	12566	11978	12185	12243	2.43	cps
Titanium	47-1	27005	1907	1903	10272	141.08	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-01

Instrumnet Name :

P7

Client Sample ID :

E29Z1

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:36:21

DataFile Name :

024SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	58568	58464	58759	58597	0.26	cps
Vanadium	51-2	1760	2057	1950	1922	7.82	cps
Yttrium	89-1	39555204	38929258	38498232	38994231	1.36	cps
Yttrium	89-2	9751172	9623266	9681855	9685431	0.66	cps
Zinc	66-2	33818	33581	32950	33450	1.34	cps
Zirconium	90-1	3871	3971	3967	3936	1.44	cps
Zirconium	91-1	723	887	840	817	10.30	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-02 Instrumnet Name : P7
Client Sample ID : E29Z3 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:39:34 DataFile Name : 025SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	10044	10037	9510	9864	3.10	cps
Antimony	121-1	1710	1607	1670	1662	3.13	cps
Arsenic	75-2	1913	1930	1790	1878	4.07	cps
Barium	135-1	529426	526947	525470	527281	0.38	cps
Barium	137-1	918353	914682	916618	916551	0.20	cps
Beryllium	9-1	111	122	172	135	24.08	cps
Bismuth	209-1	19170536	19481655	19298468	19316886	0.81	cps
Bismuth	209-2	15197089	15066514	15040374	15101326	0.56	cps
Bromine	81-1	36044	40325	43407	39925	9.26	cps
Bromine	81-2	5188	5281	5581	5350	3.84	cps
Cadmium	108-1	57	63	40	53	22.53	cps
Cadmium	106-1	10791	10387	10234	10471	2.75	cps
Cadmium	111-1	7704	7337	7262	7434	3.18	cps
Calcium	43-1	4845306	4880913	4810037	4845419	0.73	cps
Calcium	44-1	76351444	76740231	76722916	76604863	0.29	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5158	5501	4991	5217	4.99	cps
Cobalt	59-2	2154	2110	2237	2167	2.97	cps
Copper	63-2	10440	10577	10374	10464	0.99	cps
Dysprosium	156-1	383	420	363	389	7.39	cps
Dysprosium	156-2	317	293	247	286	12.48	cps
Erbium	164-1	290	237	250	259	10.72	cps
Erbium	164-2	183	180	180	181	1.06	cps
Gadolinium	160-1	510	570	543	541	5.56	cps
Gadolinium	160-2	1797	1663	1623	1695	5.36	cps
Holmium	165-1	33039000	32763159	33092965	32965041	0.54	cps
Holmium	165-2	22638056	22588950	22311181	22512729	0.78	cps
Indium	115-1	28032623	28169512	27985234	28062456	0.34	cps
Indium	115-2	9929537	9888490	9775746	9864591	0.81	cps
Iron	56-2	536668	535050	532934	534884	0.35	cps
Iron	57-2	102184	103372	102916	102824	0.58	cps
Iron	54-2	32165	31587	30087	31279	3.43	cps
Krypton	83-1	340	240	377	319	22.18	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-02 Instrumnet Name : P7
Client Sample ID : E29Z3 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:39:34 DataFile Name : 025SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4391	4297	4114	4267	3.30	cps
Lead	207-1	3317	3397	3541	3418	3.31	cps
Lead	208-1	16511	16294	16421	16409	0.66	cps
Lithium	6-1	3093099	3098316	3055828	3082414	0.75	cps
Magnesium	24-2	27349136	27018034	26988622	27118597	0.74	cps
Manganese	55-2	74563	74081	73964	74203	0.43	cps
Molybdenum	94-1	38063	38594	38688	38448	0.88	cps
Molybdenum	95-1	66185	65506	64354	65348	1.42	cps
Molybdenum	96-1	70000	69718	69524	69747	0.34	cps
Molybdenum	97-1	41422	40499	40620	40847	1.23	cps
Molybdenum	98-1	104856	105225	104184	104755	0.50	cps
Neodymium	150-1	193	187	203	194	4.31	cps
Neodymium	150-2	83	100	177	120	41.49	cps
Nickel	60-2	4551	4581	4524	4552	0.62	cps
Phosphorus	31-2	1543	1697	1473	1571	7.27	cps
Potassium	39-2	4399725	4409429	4334008	4381054	0.94	cps
Rhodium	103-1	26326483	26690470	26368889	26461947	0.75	cps
Rhodium	103-2	15415967	15486111	15079699	15327259	1.42	cps
Scandium	45-1	15279211	15400643	15453966	15377940	0.58	cps
Scandium	45-2	1403243	1344215	1353515	1366991	2.32	cps
Selenium	82-1	464	534	355	451	19.95	cps
Selenium	77-2	10	3	7	7	50.03	cps
Selenium	78-2	560	523	443	509	11.72	cps
Silicon	28-1	51660776	50702569	50729993	51031113	1.07	cps
Silver	107-1	303	267	323	298	9.65	cps
Silver	109-1	167	150	170	162	6.61	cps
Sodium	23-2	20685035	20776694	20841886	20767871	0.38	cps
Strontium	86-1	19584913	19652650	19433552	19557038	0.57	cps
Strontium	88-1	173055197	169876824	170411977	171114666	0.99	cps
Sulfur	34-1	1748649	1727271	1721142	1732354	0.83	cps
Terbium	159-1	33619129	34276231	33673884	33856414	1.08	cps
Terbium	159-2	22557410	22150213	22137256	22281626	1.07	cps
Thallium	203-1	980	970	827	926	9.27	cps
Thallium	205-1	2524	2250	2274	2349	6.45	cps
Tin	118-1	4704	4701	4721	4709	0.23	cps
Titanium	47-1	3054	1904	3062	2673	24.93	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-02

Instrumnet Name :

P7

Client Sample ID :

E29Z3

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:39:34

DataFile Name :

025SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	58525	58146	58441	58371	0.34	cps
Vanadium	51-2	2007	1913	1733	1885	7.37	cps
Yttrium	89-1	38103578	38149308	37889777	38047554	0.36	cps
Yttrium	89-2	9699429	9588527	9452193	9580049	1.29	cps
Zinc	66-2	8112	8142	7735	7997	2.84	cps
Zirconium	90-1	4104	3874	3967	3982	2.91	cps
Zirconium	91-1	787	937	910	878	9.12	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-03 Instrumnet Name : P7
Client Sample ID : E29Z5 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:42:42 DataFile Name : 026SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	14387	14274	14093	14251	1.04	cps
Antimony	121-1	1853	1723	1623	1733	6.65	cps
Arsenic	75-2	1973	1933	1777	1895	5.49	cps
Barium	135-1	522600	529872	522059	524843	0.83	cps
Barium	137-1	917076	911708	909821	912868	0.41	cps
Beryllium	9-1	94	122	167	128	28.51	cps
Bismuth	209-1	19522696	19408313	19285336	19405448	0.61	cps
Bismuth	209-2	15507354	15436906	15347830	15430697	0.52	cps
Bromine	81-1	37561	43581	45700	42281	9.99	cps
Bromine	81-2	6018	6115	6248	6127	1.89	cps
Cadmium	108-1	40	83	67	63	34.51	cps
Cadmium	106-1	10837	10771	10414	10674	2.13	cps
Cadmium	111-1	7685	7605	7343	7544	2.37	cps
Calcium	43-1	4777347	4795894	4718858	4764033	0.84	cps
Calcium	44-1	75852076	76034696	76061892	75982888	0.15	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	24123	23999	23609	23910	1.12	cps
Cobalt	59-2	2674	2714	2617	2668	1.82	cps
Copper	63-2	11438	11398	11188	11341	1.18	cps
Dysprosium	156-1	420	450	447	439	3.75	cps
Dysprosium	156-2	430	347	407	394	10.90	cps
Erbium	164-1	303	307	297	302	1.68	cps
Erbium	164-2	227	187	177	197	13.45	cps
Gadolinium	160-1	583	613	560	586	4.57	cps
Gadolinium	160-2	1590	1853	1617	1687	8.59	cps
Holmium	165-1	33761109	33463361	33016733	33413734	1.12	cps
Holmium	165-2	22773955	22425180	22687676	22628937	0.80	cps
Indium	115-1	28646982	28447840	28169805	28421542	0.84	cps
Indium	115-2	9799353	9848274	9859685	9835771	0.33	cps
Iron	56-2	735165	730154	726732	730684	0.58	cps
Iron	57-2	107300	106528	106964	106930	0.36	cps
Iron	54-2	43208	43643	41985	42945	2.00	cps
Krypton	83-1	283	313	327	308	7.21	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-03 Instrumnet Name : P7
Client Sample ID : E29Z5 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:42:42 DataFile Name : 026SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	6805	6512	6598	6638	2.27	cps
Lead	207-1	5508	5388	5621	5506	2.12	cps
Lead	208-1	25846	25216	25673	25578	1.27	cps
Lithium	6-1	3210142	3185770	3165576	3187163	0.70	cps
Magnesium	24-2	26869780	26405953	26593235	26622989	0.88	cps
Manganese	55-2	93488	92935	91865	92762	0.89	cps
Molybdenum	94-1	40867	41158	40877	40967	0.40	cps
Molybdenum	95-1	68087	67836	68104	68009	0.22	cps
Molybdenum	96-1	73718	73440	73289	73482	0.30	cps
Molybdenum	97-1	42736	44120	42238	43031	2.27	cps
Molybdenum	98-1	109406	110417	110678	110167	0.61	cps
Neodymium	150-1	303	313	300	306	2.27	cps
Neodymium	150-2	197	150	153	167	15.62	cps
Nickel	60-2	10257	10467	10274	10333	1.13	cps
Phosphorus	31-2	1943	1883	2104	1977	5.75	cps
Potassium	39-2	4360678	4425707	4353552	4379979	0.91	cps
Rhodium	103-1	26593552	26307165	26470790	26457169	0.54	cps
Rhodium	103-2	15467321	15481304	15348260	15432295	0.47	cps
Scandium	45-1	15474889	15452074	15343059	15423341	0.46	cps
Scandium	45-2	1354624	1363901	1385590	1368038	1.16	cps
Selenium	82-1	581	520	498	533	8.05	cps
Selenium	77-2	7	0	3	3	100.05	cps
Selenium	78-2	540	490	480	503	6.39	cps
Silicon	28-1	51227176	51303868	51535216	51355420	0.31	cps
Silver	107-1	253	280	287	273	6.45	cps
Silver	109-1	173	167	137	159	12.29	cps
Sodium	23-2	20265109	19904753	20261652	20143838	1.03	cps
Strontium	86-1	19551631	19549266	19610226	19570374	0.18	cps
Strontium	88-1	171513397	170658821	170896044	171022754	0.26	cps
Sulfur	34-1	1729664	1728261	1723130	1727018	0.20	cps
Terbium	159-1	34224537	34194174	34206247	34208319	0.04	cps
Terbium	159-2	22513022	22185871	22506581	22401825	0.83	cps
Thallium	203-1	777	693	777	749	6.42	cps
Thallium	205-1	1853	1743	1660	1752	5.53	cps
Tin	118-1	5654	5628	5771	5685	1.34	cps
Titanium	47-1	2337	2617	2680	2545	7.18	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-03

Instrumnet Name :

P7

Client Sample ID :

E29Z5

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:42:42

DataFile Name :

026SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	58903	59727	58367	58999	1.16	cps
Vanadium	51-2	2100	1930	2010	2013	4.22	cps
Yttrium	89-1	38693023	38434442	38251919	38459795	0.58	cps
Yttrium	89-2	9730908	9595406	9633357	9653224	0.72	cps
Zinc	66-2	11358	10771	10517	10882	3.96	cps
Zirconium	90-1	4988	5605	5148	5247	6.10	cps
Zirconium	91-1	1317	1087	1190	1198	9.62	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-04 Instrumnet Name : P7
Client Sample ID : E29Z7 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:45:52 DataFile Name : 027SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6222	5731	5658	5871	5.23	cps
Antimony	121-1	1513	1743	1543	1600	7.82	cps
Arsenic	75-2	1943	1903	1967	1938	1.65	cps
Barium	135-1	531635	531660	529565	530953	0.23	cps
Barium	137-1	922449	922027	919635	921370	0.16	cps
Beryllium	9-1	100	72	83	85	16.41	cps
Bismuth	209-1	19869383	19806613	19448668	19708221	1.15	cps
Bismuth	209-2	15528395	15517260	15393866	15479840	0.48	cps
Bromine	81-1	36371	41966	43223	40520	9.00	cps
Bromine	81-2	5751	5478	5661	5630	2.48	cps
Cadmium	108-1	53	60	50	54	9.35	cps
Cadmium	106-1	11228	10377	10624	10743	4.07	cps
Cadmium	111-1	7932	7369	7525	7609	3.82	cps
Calcium	43-1	4853978	4827773	4816237	4832663	0.40	cps
Calcium	44-1	77132261	76870646	76687654	76896853	0.29	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6048	6461	6035	6181	3.93	cps
Cobalt	59-2	2054	2044	2130	2076	2.28	cps
Copper	63-2	12832	12472	12866	12723	1.72	cps
Dysprosium	156-1	313	400	367	360	12.14	cps
Dysprosium	156-2	267	290	300	286	5.99	cps
Erbium	164-1	207	233	233	224	6.86	cps
Erbium	164-2	97	157	137	130	23.50	cps
Gadolinium	160-1	533	433	533	500	11.55	cps
Gadolinium	160-2	1647	1630	1633	1637	0.54	cps
Holmium	165-1	33690270	33687595	33361700	33579855	0.56	cps
Holmium	165-2	22744275	22569886	22856003	22723388	0.63	cps
Indium	115-1	28480117	28413939	27825107	28239721	1.28	cps
Indium	115-2	9936038	9764785	9734544	9811789	1.11	cps
Iron	56-2	434952	416392	411620	420988	2.93	cps
Iron	57-2	98607	99396	99060	99021	0.40	cps
Iron	54-2	24574	24984	24707	24755	0.85	cps
Krypton	83-1	270	230	257	252	8.08	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-04 Instrumnet Name : P7
Client Sample ID : E29Z7 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:45:52 DataFile Name : 027SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3867	3961	3851	3893	1.52	cps
Lead	207-1	3494	3217	3424	3378	4.26	cps
Lead	208-1	15444	15404	15107	15318	1.20	cps
Lithium	6-1	3382929	3246180	3196603	3275237	2.95	cps
Magnesium	24-2	27238772	27347992	27046712	27211159	0.56	cps
Manganese	55-2	58875	58182	57473	58176	1.21	cps
Molybdenum	94-1	37678	37294	37104	37359	0.78	cps
Molybdenum	95-1	64136	63815	63979	63977	0.25	cps
Molybdenum	96-1	69618	69698	69146	69487	0.43	cps
Molybdenum	97-1	40128	40386	39597	40037	1.00	cps
Molybdenum	98-1	104091	105437	104313	104614	0.69	cps
Neodymium	150-1	167	153	150	157	5.63	cps
Neodymium	150-2	83	67	83	78	12.37	cps
Nickel	60-2	4161	4224	4291	4225	1.54	cps
Phosphorus	31-2	1543	1437	1457	1479	3.83	cps
Potassium	39-2	4279224	4165309	4180858	4208464	1.47	cps
Rhodium	103-1	26951260	26401909	26322465	26558545	1.29	cps
Rhodium	103-2	15316346	15362858	15402229	15360478	0.28	cps
Scandium	45-1	15366519	15388339	15166960	15307273	0.80	cps
Scandium	45-2	1384705	1353741	1371131	1369859	1.13	cps
Selenium	82-1	620	550	558	576	6.64	cps
Selenium	77-2	7	3	7	6	34.70	cps
Selenium	78-2	547	417	493	486	13.46	cps
Silicon	28-1	51235061	51641359	51771421	51549280	0.54	cps
Silver	107-1	240	230	277	249	9.87	cps
Silver	109-1	143	143	133	140	4.12	cps
Sodium	23-2	20693530	20544973	20699222	20645908	0.42	cps
Strontium	86-1	20042703	20156085	19782456	19993748	0.96	cps
Strontium	88-1	176655951	175834604	175015517	175835357	0.47	cps
Sulfur	34-1	1709511	1742350	1789815	1747225	2.31	cps
Terbium	159-1	34706259	34057176	34025275	34262904	1.12	cps
Terbium	159-2	22583530	22563964	22945268	22697587	0.95	cps
Thallium	203-1	773	670	680	708	8.05	cps
Thallium	205-1	1610	1550	1517	1559	3.03	cps
Tin	118-1	6368	5938	5781	6029	5.04	cps
Titanium	47-1	1320	1220	3087	1876	55.99	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-04

Instrumnet Name :

P7

Client Sample ID :

E29Z7

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:45:52

DataFile Name :

027SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	60005	61193	61364	60854	1.22	cps
Vanadium	51-2	1630	1893	1683	1736	8.02	cps
Yttrium	89-1	38662264	38370916	38075781	38369654	0.76	cps
Yttrium	89-2	9496860	9490714	9537550	9508375	0.27	cps
Zinc	66-2	9633	9423	9783	9613	1.88	cps
Zirconium	90-1	3107	2987	3510	3202	8.57	cps
Zirconium	91-1	680	660	653	664	2.09	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-05 Instrumnet Name : P7
Client Sample ID : E2A13 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:49:00 DataFile Name : 028SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	8346	8637	10604	9195	13.36	cps
Antimony	121-1	1560	1597	1803	1653	7.94	cps
Arsenic	75-2	1760	1863	1640	1755	6.37	cps
Barium	135-1	518693	519875	519357	519308	0.11	cps
Barium	137-1	901226	899826	896787	899280	0.25	cps
Beryllium	9-1	100	72	106	93	19.29	cps
Bismuth	209-1	20056503	19872463	19914795	19947920	0.48	cps
Bismuth	209-2	15665338	15631518	15550581	15615812	0.38	cps
Bromine	81-1	36097	39790	42190	39359	7.80	cps
Bromine	81-2	5171	5221	5341	5244	1.67	cps
Cadmium	108-1	43	63	27	44	41.30	cps
Cadmium	106-1	11148	10864	10237	10750	4.34	cps
Cadmium	111-1	7880	7651	7224	7585	4.39	cps
Calcium	43-1	4695867	4723815	4670904	4696862	0.56	cps
Calcium	44-1	74298942	74998251	73883934	74393709	0.76	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	15712	15408	15488	15536	1.01	cps
Cobalt	59-2	2434	2430	2560	2475	3.00	cps
Copper	63-2	11078	11211	10791	11026	1.95	cps
Dysprosium	156-1	440	450	463	451	2.60	cps
Dysprosium	156-2	333	353	347	344	2.96	cps
Erbium	164-1	297	327	307	310	4.93	cps
Erbium	164-2	207	213	170	197	11.87	cps
Gadolinium	160-1	663	573	643	627	7.54	cps
Gadolinium	160-2	1500	1537	1597	1545	3.16	cps
Holmium	165-1	33821400	33907033	33728051	33818828	0.26	cps
Holmium	165-2	23098312	23241952	22786575	23042280	1.01	cps
Indium	115-1	28485923	28370019	27843706	28233216	1.21	cps
Indium	115-2	9687085	9865479	9783606	9778723	0.91	cps
Iron	56-2	492139	487566	483705	487803	0.87	cps
Iron	57-2	97446	99185	99627	98753	1.17	cps
Iron	54-2	28343	28397	28854	28532	0.98	cps
Krypton	83-1	217	277	273	256	13.19	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-05 Instrumnet Name : P7
Client Sample ID : E2A13 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:49:00 DataFile Name : 028SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	5815	5421	5755	5663	3.74	cps
Lead	207-1	4818	4611	4748	4725	2.23	cps
Lead	208-1	22487	22004	21980	22157	1.29	cps
Lithium	6-1	3285194	3187956	3243907	3239019	1.51	cps
Magnesium	24-2	26431838	26447347	26625782	26501656	0.41	cps
Manganese	55-2	81174	80500	81646	81107	0.71	cps
Molybdenum	94-1	35713	34875	34952	35180	1.32	cps
Molybdenum	95-1	61304	61465	61130	61300	0.27	cps
Molybdenum	96-1	66353	65124	64622	65366	1.36	cps
Molybdenum	97-1	37906	38227	38056	38063	0.42	cps
Molybdenum	98-1	97784	96476	97341	97200	0.68	cps
Neodymium	150-1	203	210	210	208	1.85	cps
Neodymium	150-2	127	103	87	106	19.04	cps
Nickel	60-2	8516	8069	8109	8231	3.00	cps
Phosphorus	31-2	1547	1660	1653	1620	3.93	cps
Potassium	39-2	4187660	4239867	4262933	4230153	0.91	cps
Rhodium	103-1	26289129	26069869	25953178	26104059	0.65	cps
Rhodium	103-2	15360718	15476883	15353191	15396930	0.45	cps
Scandium	45-1	15221446	15361039	15152638	15245041	0.70	cps
Scandium	45-2	1332386	1342514	1338289	1337729	0.38	cps
Selenium	82-1	575	465	534	525	10.54	cps
Selenium	77-2	7	3	3	4	43.40	cps
Selenium	78-2	443	543	520	502	10.42	cps
Silicon	28-1	51007413	50918966	50550491	50825623	0.48	cps
Silver	107-1	233	287	257	259	10.33	cps
Silver	109-1	90	117	127	111	17.06	cps
Sodium	23-2	19806367	19947294	19846696	19866786	0.37	cps
Strontium	86-1	19394433	19472017	19000589	19289013	1.31	cps
Strontium	88-1	168354371	168704471	165778334	167612392	0.95	cps
Sulfur	34-1	1758335	1723641	1743921	1741966	1.00	cps
Terbium	159-1	34790567	34522999	33987537	34433701	1.19	cps
Terbium	159-2	22693111	22616183	22510149	22606481	0.41	cps
Thallium	203-1	700	637	577	638	9.67	cps
Thallium	205-1	1610	1493	1413	1506	6.57	cps
Tin	118-1	5118	4838	4868	4941	3.11	cps
Titanium	47-1	1460	1707	1517	1561	8.28	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-05

Instrumnet Name :

P7

Client Sample ID :

E2A13

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:49:00

DataFile Name :

028SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	58471	58464	59405	58780	0.92	cps
Vanadium	51-2	1800	1763	1863	1809	2.80	cps
Yttrium	89-1	38157634	37944585	37650594	37917604	0.67	cps
Yttrium	89-2	9595537	9496192	9516423	9536050	0.55	cps
Zinc	66-2	8986	8939	8796	8907	1.11	cps
Zirconium	90-1	3434	3264	3601	3433	4.91	cps
Zirconium	91-1	790	623	707	707	11.79	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-06 Instrumnet Name : P7
Client Sample ID : E2A19 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:52:10 DataFile Name : 029SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	10000	9877	9480	9785	2.78	cps
Antimony	121-1	937	910	1027	958	6.38	cps
Arsenic	75-2	7	10	13	10	33.30	cps
Barium	135-1	1100	1007	1450	1186	19.72	cps
Barium	137-1	2080	1990	2480	2184	11.95	cps
Beryllium	9-1	61	50	100	70	37.31	cps
Bismuth	209-1	20759033	19617391	20132675	20169700	2.83	cps
Bismuth	209-2	16237502	15939119	16194941	16123854	1.00	cps
Bromine	81-1	19116	18922	17831	18623	3.72	cps
Bromine	81-2	323	340	307	323	5.16	cps
Cadmium	108-1	23	37	43	34	29.57	cps
Cadmium	106-1	11164	10447	10591	10734	3.54	cps
Cadmium	111-1	7835	7331	7496	7554	3.41	cps
Calcium	43-1	8669	7919	8316	8301	4.52	cps
Calcium	44-1	148535	145685	146084	146768	1.05	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4384	4374	4167	4308	2.84	cps
Cobalt	59-2	203	187	137	176	19.76	cps
Copper	63-2	6902	6925	6872	6899	0.39	cps
Dysprosium	156-1	13	30	27	23	37.81	cps
Dysprosium	156-2	17	47	17	27	64.94	cps
Erbium	164-1	143	147	140	143	2.33	cps
Erbium	164-2	97	57	110	88	31.62	cps
Gadolinium	160-1	113	127	160	133	18.03	cps
Gadolinium	160-2	1203	1377	1320	1300	6.80	cps
Holmium	165-1	33836576	32106533	33220042	33054384	2.65	cps
Holmium	165-2	22932083	22849922	22937173	22906393	0.21	cps
Indium	115-1	28942568	27690222	28372443	28335078	2.21	cps
Indium	115-2	10108794	9843182	9814951	9922309	1.63	cps
Iron	56-2	44606	44432	43733	44257	1.04	cps
Iron	57-2	2033	1860	2023	1972	4.93	cps
Iron	54-2	4567	4557	4494	4540	0.88	cps
Krypton	83-1	297	307	323	309	4.36	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-06 Instrumnet Name : P7
Client Sample ID : E2A19 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:52:10 DataFile Name : 029SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2224	2147	2187	2186	1.75	cps
Lead	207-1	1783	1847	1857	1829	2.17	cps
Lead	208-1	8574	8418	8498	8497	0.92	cps
Lithium	6-1	3418318	3188487	3278971	3295259	3.51	cps
Magnesium	24-2	8129	8019	7902	8017	1.41	cps
Manganese	55-2	6491	6108	6385	6328	3.13	cps
Molybdenum	94-1	647	657	633	646	1.81	cps
Molybdenum	95-1	157	133	173	154	13.01	cps
Molybdenum	96-1	287	270	250	269	6.83	cps
Molybdenum	97-1	77	63	87	76	15.50	cps
Molybdenum	98-1	223	203	223	217	5.33	cps
Neodymium	150-1	23	20	23	22	8.65	cps
Neodymium	150-2	10	10	3	8	49.52	cps
Nickel	60-2	820	863	890	858	4.12	cps
Phosphorus	31-2	450	387	463	433	9.45	cps
Potassium	39-2	82405	82492	83430	82775	0.69	cps
Rhodium	103-1	27078618	25747025	26587324	26470989	2.54	cps
Rhodium	103-2	15958160	15935106	15749567	15880944	0.72	cps
Scandium	45-1	15372559	14460107	14995961	14942876	3.07	cps
Scandium	45-2	1328864	1359397	1318029	1335430	1.61	cps
Selenium	82-1	474	434	356	421	14.26	cps
Selenium	77-2	7	3	3	4	43.40	cps
Selenium	78-2	480	383	500	454	13.73	cps
Silicon	28-1	806635	808072	814175	809627	0.49	cps
Silver	107-1	250	193	270	238	16.72	cps
Silver	109-1	133	187	250	190	30.74	cps
Sodium	23-2	119845	119435	118615	119298	0.52	cps
Strontium	86-1	3904	2904	2797	3202	19.07	cps
Strontium	88-1	30432	23168	21076	24892	19.73	cps
Sulfur	34-1	326385	325257	328216	326619	0.46	cps
Terbium	159-1	34770515	33076248	33591531	33812765	2.57	cps
Terbium	159-2	22858388	22421221	22207257	22495622	1.48	cps
Thallium	203-1	527	370	460	452	17.39	cps
Thallium	205-1	1140	1097	1093	1110	2.35	cps
Tin	118-1	4301	4728	4337	4455	5.32	cps
Titanium	47-1	220	233	243	232	5.04	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-06

Instrumnet Name :

P7

Client Sample ID :

E2A19

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:52:10

DataFile Name :

029SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	37	53	113	68	59.50	cps
Vanadium	51-2	127	113	60	100	35.28	cps
Yttrium	89-1	38293333	36043932	36502250	36946505	3.22	cps
Yttrium	89-2	9724257	9517597	9561025	9600960	1.13	cps
Zinc	66-2	11388	11615	11681	11561	1.33	cps
Zirconium	90-1	1840	1767	1650	1752	5.47	cps
Zirconium	91-1	343	347	347	346	0.56	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-07 Instrumnet Name : P7
Client Sample ID : E2A22 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:55:24 DataFile Name : 030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	950	1007	923	960	4.43	cps
Antimony	121-1	133	120	137	130	6.79	cps
Arsenic	75-2	17	17	27	20	28.86	cps
Barium	135-1	267	253	293	271	7.51	cps
Barium	137-1	427	450	413	430	4.32	cps
Beryllium	9-1	128	122	117	122	4.54	cps
Bismuth	209-1	20366519	20039708	19861349	20089192	1.28	cps
Bismuth	209-2	15785923	15711645	15580466	15692678	0.66	cps
Bromine	81-1	17100	16389	16609	16700	2.18	cps
Bromine	81-2	183	160	137	160	14.58	cps
Cadmium	108-1	27	23	47	32	39.17	cps
Cadmium	106-1	10511	10577	10250	10446	1.65	cps
Cadmium	111-1	7379	7424	7186	7330	1.73	cps
Calcium	43-1	4387	4307	4334	4343	0.94	cps
Calcium	44-1	84413	82855	83263	83510	0.97	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4928	4711	4908	4849	2.47	cps
Cobalt	59-2	130	123	157	137	12.91	cps
Copper	63-2	2720	2567	2524	2604	3.97	cps
Dysprosium	156-1	27	20	20	22	17.33	cps
Dysprosium	156-2	37	27	13	26	45.82	cps
Erbium	164-1	123	143	140	136	7.91	cps
Erbium	164-2	67	87	107	87	23.08	cps
Gadolinium	160-1	153	143	167	154	7.58	cps
Gadolinium	160-2	1220	1323	1160	1235	6.69	cps
Holmium	165-1	33091441	32666756	33113937	32957378	0.76	cps
Holmium	165-2	22939385	22501984	22050801	22497390	1.97	cps
Indium	115-1	27949875	27850138	27551267	27783760	0.75	cps
Indium	115-2	9870912	9595124	9649849	9705295	1.50	cps
Iron	56-2	39258	39542	39127	39309	0.54	cps
Iron	57-2	1790	1700	1770	1753	2.70	cps
Iron	54-2	4421	4201	4377	4333	2.69	cps
Krypton	83-1	257	287	263	269	5.86	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-07 Instrumnet Name : P7
Client Sample ID : E2A22 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:55:24 DataFile Name : 030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2310	2114	2284	2236	4.77	cps
Lead	207-1	1943	1950	1917	1937	0.91	cps
Lead	208-1	9191	8848	9021	9020	1.90	cps
Lithium	6-1	3305605	3329543	3328775	3321308	0.41	cps
Magnesium	24-2	3977	4027	4031	4012	0.74	cps
Manganese	55-2	12465	12692	12615	12591	0.92	cps
Molybdenum	94-1	547	653	497	566	14.15	cps
Molybdenum	95-1	110	120	133	121	9.67	cps
Molybdenum	96-1	213	227	260	233	10.30	cps
Molybdenum	97-1	87	73	77	79	8.80	cps
Molybdenum	98-1	237	223	207	222	6.76	cps
Neodymium	150-1	20	37	30	29	29.04	cps
Neodymium	150-2	20	13	30	21	39.75	cps
Nickel	60-2	777	797	753	776	2.80	cps
Phosphorus	31-2	493	497	510	500	1.76	cps
Potassium	39-2	81631	81158	79965	80918	1.06	cps
Rhodium	103-1	26498686	26415786	26180526	26365000	0.63	cps
Rhodium	103-2	15599049	15427038	15499691	15508593	0.56	cps
Scandium	45-1	15057496	14703755	14648414	14803222	1.50	cps
Scandium	45-2	1321309	1319629	1299516	1313485	0.92	cps
Selenium	82-1	500	428	343	424	18.58	cps
Selenium	77-2	0	7	0	2	173.21	cps
Selenium	78-2	470	417	423	437	6.65	cps
Silicon	28-1	745593	744507	751528	747209	0.51	cps
Silver	107-1	243	253	180	226	17.63	cps
Silver	109-1	123	83	87	98	22.70	cps
Sodium	23-2	77138	76261	75457	76285	1.10	cps
Strontium	86-1	913	830	827	857	5.73	cps
Strontium	88-1	3334	3144	3094	3190	3.97	cps
Sulfur	34-1	323003	321397	321826	322075	0.26	cps
Terbium	159-1	33918904	33825245	33338317	33694155	0.93	cps
Terbium	159-2	22283230	22391760	22174378	22283122	0.49	cps
Thallium	203-1	453	407	317	392	17.71	cps
Thallium	205-1	973	1060	843	959	11.37	cps
Tin	118-1	5004	5054	4824	4961	2.44	cps
Titanium	47-1	223	270	240	244	9.68	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-07

Instrumnet Name :

P7

Client Sample ID :

E2A22

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:55:24

DataFile Name :

030SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	43	23	33	33	30.00	cps
Vanadium	51-2	90	63	80	78	17.32	cps
Yttrium	89-1	37008344	36558554	36116187	36561028	1.22	cps
Yttrium	89-2	9301253	9327515	9190594	9273121	0.78	cps
Zinc	66-2	8086	8162	8116	8121	0.48	cps
Zirconium	90-1	1517	1610	1553	1560	3.01	cps
Zirconium	91-1	317	287	277	293	7.10	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-08 Instrumnet Name : P7
Client Sample ID : E2A23 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:58:40 DataFile Name : 031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1764	1380	1470	1538	13.06	cps
Antimony	121-1	183	90	147	140	33.59	cps
Arsenic	75-2	10	20	7	12	56.76	cps
Barium	135-1	400	397	327	374	11.06	cps
Barium	137-1	747	700	680	709	4.83	cps
Beryllium	9-1	111	117	94	107	10.77	cps
Bismuth	209-1	20375738	20131093	20122810	20209881	0.71	cps
Bismuth	209-2	15611456	15667731	15625732	15634973	0.19	cps
Bromine	81-1	16022	16873	16466	16454	2.59	cps
Bromine	81-2	137	97	147	127	20.89	cps
Cadmium	108-1	20	23	37	27	33.08	cps
Cadmium	106-1	10761	10431	10407	10533	1.88	cps
Cadmium	111-1	7565	7348	7313	7409	1.84	cps
Calcium	43-1	4324	4247	4117	4230	2.47	cps
Calcium	44-1	80184	79071	79617	79624	0.70	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4757	4594	4514	4622	2.68	cps
Cobalt	59-2	183	150	137	157	15.34	cps
Copper	63-2	3120	2910	3060	3030	3.57	cps
Dysprosium	156-1	33	10	17	20	60.08	cps
Dysprosium	156-2	13	7	10	10	33.30	cps
Erbium	164-1	147	137	140	141	3.61	cps
Erbium	164-2	80	67	90	79	14.84	cps
Gadolinium	160-1	160	203	153	172	15.76	cps
Gadolinium	160-2	1270	1310	1217	1266	3.70	cps
Holmium	165-1	33274257	32643807	32289098	32735721	1.52	cps
Holmium	165-2	22224636	22488506	22168248	22293797	0.77	cps
Indium	115-1	28056602	27824918	27818698	27900073	0.49	cps
Indium	115-2	9677941	9639771	9609853	9642522	0.35	cps
Iron	56-2	40782	43672	40768	41741	4.01	cps
Iron	57-2	1893	1800	1790	1828	3.12	cps
Iron	54-2	4257	4241	4161	4220	1.23	cps
Krypton	83-1	280	283	230	264	11.30	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-08 Instrumnet Name : P7
Client Sample ID : E2A23 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 14:58:40 DataFile Name : 031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2337	2244	2277	2286	2.07	cps
Lead	207-1	2014	1810	1727	1850	7.97	cps
Lead	208-1	9305	8741	8481	8842	4.76	cps
Lithium	6-1	3291969	3273874	3306773	3290872	0.50	cps
Magnesium	24-2	3787	3891	3951	3876	2.13	cps
Manganese	55-2	6918	6635	6985	6846	2.72	cps
Molybdenum	94-1	587	610	630	609	3.56	cps
Molybdenum	95-1	110	117	83	103	17.07	cps
Molybdenum	96-1	267	187	257	237	18.42	cps
Molybdenum	97-1	97	67	67	77	22.59	cps
Molybdenum	98-1	180	180	153	171	9.00	cps
Neodymium	150-1	23	10	7	13	66.12	cps
Neodymium	150-2	3	20	13	12	68.66	cps
Nickel	60-2	680	687	590	652	8.28	cps
Phosphorus	31-2	350	423	483	419	15.94	cps
Potassium	39-2	79385	80357	80079	79940	0.63	cps
Rhodium	103-1	26463755	26290585	26041026	26265122	0.81	cps
Rhodium	103-2	15660983	15478848	15435599	15525143	0.77	cps
Scandium	45-1	14947080	14861286	14708071	14838813	0.82	cps
Scandium	45-2	1314791	1312863	1292006	1306553	0.97	cps
Selenium	82-1	472	390	402	421	10.53	cps
Selenium	77-2	7	0	0	2	173.21	cps
Selenium	78-2	463	417	417	432	6.23	cps
Silicon	28-1	730756	734153	740325	735078	0.66	cps
Silver	107-1	267	207	223	232	13.34	cps
Silver	109-1	70	97	130	99	30.40	cps
Sodium	23-2	89545	89518	89022	89362	0.33	cps
Strontium	86-1	1440	1383	1290	1371	5.52	cps
Strontium	88-1	8696	7672	8052	8140	6.36	cps
Sulfur	34-1	321739	323119	323017	322625	0.24	cps
Terbium	159-1	34134404	33901739	33629455	33888533	0.75	cps
Terbium	159-2	22243571	22058956	22172613	22158380	0.42	cps
Thallium	203-1	453	337	380	390	15.12	cps
Thallium	205-1	1010	873	837	907	10.08	cps
Tin	118-1	5918	5955	5971	5948	0.46	cps
Titanium	47-1	220	240	223	228	4.70	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-08

Instrumnet Name :

P7

Client Sample ID :

E2A23

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 14:58:40

DataFile Name :

031SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	60	37	37	44	30.31	cps
Vanadium	51-2	153	103	140	132	19.59	cps
Yttrium	89-1	36955981	36676924	36230967	36621291	1.00	cps
Yttrium	89-2	9375264	9339840	9317815	9344306	0.31	cps
Zinc	66-2	6291	6175	6275	6247	1.01	cps
Zirconium	90-1	1687	1570	1600	1619	3.74	cps
Zirconium	91-1	347	247	320	304	17.01	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-09 Instrumnet Name : P7
Client Sample ID : E29Z9 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:01:54 DataFile Name : 032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	8156	7909	8740	8268	5.16	cps
Antimony	121-1	1903	1887	1943	1911	1.52	cps
Arsenic	75-2	1753	1770	1857	1793	3.09	cps
Barium	135-1	535235	529140	534055	532810	0.61	cps
Barium	137-1	934398	927499	919824	927240	0.79	cps
Beryllium	9-1	44	89	39	57	47.73	cps
Bismuth	209-1	19175593	19219798	19460573	19285322	0.80	cps
Bismuth	209-2	15347601	15285810	15158899	15264103	0.63	cps
Bromine	81-1	32770	37411	39626	36602	9.56	cps
Bromine	81-2	4707	4871	5431	5003	7.59	cps
Cadmium	108-1	40	43	17	33	43.58	cps
Cadmium	106-1	10651	10747	10400	10600	1.69	cps
Cadmium	111-1	7497	7570	7385	7484	1.24	cps
Calcium	43-1	4708686	4654573	4750547	4704602	1.02	cps
Calcium	44-1	75402072	75398016	75883112	75561067	0.37	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5895	6115	5741	5917	3.17	cps
Cobalt	59-2	2033	2170	2053	2086	3.54	cps
Copper	63-2	10257	9983	10147	10129	1.36	cps
Dysprosium	156-1	370	363	387	373	3.22	cps
Dysprosium	156-2	270	260	227	252	9.00	cps
Erbium	164-1	287	270	263	273	4.40	cps
Erbium	164-2	180	143	143	156	13.61	cps
Gadolinium	160-1	463	527	487	492	6.51	cps
Gadolinium	160-2	1587	1553	1700	1613	4.77	cps
Holmium	165-1	32226191	32949652	32735135	32636993	1.14	cps
Holmium	165-2	22039172	22233863	22378246	22217094	0.77	cps
Indium	115-1	26839865	27271184	27286235	27132428	0.93	cps
Indium	115-2	9508773	9596458	9544894	9550042	0.46	cps
Iron	56-2	525960	527668	527248	526959	0.17	cps
Iron	57-2	100225	101091	102262	101192	1.01	cps
Iron	54-2	31042	31246	30725	31004	0.85	cps
Krypton	83-1	360	277	230	289	22.80	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-09 Instrumnet Name : P7
Client Sample ID : E29Z9 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:01:54 DataFile Name : 032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	44372	44412	44402	44396	0.05	cps
Lead	207-1	36014	36365	35700	36027	0.92	cps
Lead	208-1	169476	169737	169806	169673	0.10	cps
Lithium	6-1	3312639	3289696	3248084	3283473	1.00	cps
Magnesium	24-2	27065165	26995327	26787715	26949403	0.54	cps
Manganese	55-2	53956	53344	53030	53443	0.88	cps
Molybdenum	94-1	37424	36442	37254	37040	1.42	cps
Molybdenum	95-1	63038	62931	62968	62979	0.09	cps
Molybdenum	96-1	68610	67709	67498	67939	0.87	cps
Molybdenum	97-1	39774	39874	39436	39695	0.58	cps
Molybdenum	98-1	101929	103181	101815	102308	0.74	cps
Neodymium	150-1	213	157	150	173	20.08	cps
Neodymium	150-2	47	127	97	90	44.90	cps
Nickel	60-2	4331	4354	4234	4306	1.48	cps
Phosphorus	31-2	1333	1350	1317	1333	1.25	cps
Potassium	39-2	4124778	4116598	4124616	4121997	0.11	cps
Rhodium	103-1	25019503	25382614	25221639	25207919	0.72	cps
Rhodium	103-2	14956779	15164161	15018853	15046598	0.71	cps
Scandium	45-1	14722884	14611361	14752748	14695664	0.51	cps
Scandium	45-2	1332867	1325403	1328465	1328912	0.28	cps
Selenium	82-1	377	467	442	428	10.78	cps
Selenium	77-2	3	3	3	3	0.00	cps
Selenium	78-2	423	417	407	416	2.02	cps
Silicon	28-1	50807596	51478743	51858756	51381698	1.04	cps
Silver	107-1	243	170	267	227	22.25	cps
Silver	109-1	127	100	77	101	24.74	cps
Sodium	23-2	20653776	20649504	20286682	20529987	1.03	cps
Strontium	86-1	19599121	19573556	19774302	19648993	0.56	cps
Strontium	88-1	171656024	171707877	172186017	171849973	0.17	cps
Sulfur	34-1	1754075	1762255	1754915	1757082	0.26	cps
Terbium	159-1	33377358	33251571	33470360	33366430	0.33	cps
Terbium	159-2	22000185	22377715	22368214	22248704	0.97	cps
Thallium	203-1	673	607	557	612	9.56	cps
Thallium	205-1	1510	1440	1293	1415	7.82	cps
Tin	118-1	11571	11578	11992	11714	2.06	cps
Titanium	47-1	5258	18610	1873	8581	103.13	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-09

Instrumnet Name :

P7

Client Sample ID :

E29Z9

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:01:54

DataFile Name :

032SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	61897	62218	61087	61734	0.94	cps
Vanadium	51-2	1833	1830	1997	1887	5.05	cps
Yttrium	89-1	36173993	36822796	36681621	36559470	0.93	cps
Yttrium	89-2	9340443	9302149	9363314	9335302	0.33	cps
Zinc	66-2	8769	8256	8449	8491	3.05	cps
Zirconium	90-1	3280	3421	2990	3231	6.80	cps
Zirconium	91-1	640	693	683	672	4.22	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10 Instrumnet Name : P7
Client Sample ID : E2A01 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:05:04 DataFile Name : 033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6749	6319	6091	6386	5.23	cps
Antimony	121-1	1773	1860	1737	1790	3.54	cps
Arsenic	75-2	1847	1747	1823	1806	2.90	cps
Barium	135-1	540280	543636	538340	540752	0.50	cps
Barium	137-1	932960	936078	935871	934970	0.19	cps
Beryllium	9-1	89	50	67	69	28.47	cps
Bismuth	209-1	20907547	19904056	19507399	20106334	3.59	cps
Bismuth	209-2	15317319	15191157	15297715	15268730	0.44	cps
Bromine	81-1	33889	38156	40255	37433	8.67	cps
Bromine	81-2	4908	4591	5038	4845	4.74	cps
Cadmium	108-1	33	57	23	38	45.29	cps
Cadmium	106-1	11415	11071	10591	11025	3.75	cps
Cadmium	111-1	8034	7810	7484	7776	3.56	cps
Calcium	43-1	4743496	4672782	4660341	4692206	0.96	cps
Calcium	44-1	74476064	74139417	74749344	74454942	0.41	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5684	5901	5718	5768	2.02	cps
Cobalt	59-2	2033	2077	2120	2077	2.09	cps
Copper	63-2	10821	11031	10771	10874	1.27	cps
Dysprosium	156-1	267	287	353	302	15.02	cps
Dysprosium	156-2	187	230	230	216	11.61	cps
Erbium	164-1	260	263	227	250	8.11	cps
Erbium	164-2	107	163	193	154	28.50	cps
Gadolinium	160-1	470	400	457	442	8.40	cps
Gadolinium	160-2	1350	1587	1523	1487	8.24	cps
Holmium	165-1	34954734	33539708	32907408	33800616	3.10	cps
Holmium	165-2	22386234	22613464	22482692	22494130	0.51	cps
Indium	115-1	29328063	28335395	27580072	28414510	3.09	cps
Indium	115-2	9783212	9648252	9769791	9733752	0.76	cps
Iron	56-2	487398	473602	470124	477041	1.92	cps
Iron	57-2	98158	99145	98507	98603	0.51	cps
Iron	54-2	28474	28136	28083	28231	0.75	cps
Krypton	83-1	213	240	303	252	18.33	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10 Instrumnet Name : P7
Client Sample ID : E2A01 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:05:04 DataFile Name : 033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3737	3977	3684	3799	4.11	cps
Lead	207-1	3117	3137	2907	3054	4.17	cps
Lead	208-1	14476	14800	14003	14426	2.78	cps
Lithium	6-1	3433870	3277900	3247955	3319908	3.01	cps
Magnesium	24-2	26226709	26210301	25937055	26124689	0.62	cps
Manganese	55-2	58801	59637	58948	59129	0.76	cps
Molybdenum	94-1	37812	38347	37856	38005	0.78	cps
Molybdenum	95-1	63550	63959	64568	64026	0.80	cps
Molybdenum	96-1	68841	69819	68767	69142	0.85	cps
Molybdenum	97-1	40035	40790	39881	40235	1.21	cps
Molybdenum	98-1	103648	105518	103946	104371	0.96	cps
Neodymium	150-1	130	187	193	170	20.47	cps
Neodymium	150-2	60	317	80	152	93.82	cps
Nickel	60-2	4127	4157	4177	4154	0.61	cps
Phosphorus	31-2	1333	1370	1267	1323	3.96	cps
Potassium	39-2	4212076	4179346	4175918	4189113	0.48	cps
Rhodium	103-1	27172608	25886875	25655684	26238389	3.11	cps
Rhodium	103-2	15152125	15309960	15055785	15172623	0.85	cps
Scandium	45-1	15886999	15221600	15101402	15403334	2.75	cps
Scandium	45-2	1363351	1326120	1347114	1345528	1.39	cps
Selenium	82-1	520	537	405	487	14.67	cps
Selenium	77-2	7	0	3	3	100.05	cps
Selenium	78-2	467	537	537	513	7.87	cps
Silicon	28-1	51535738	51595458	51766261	51632485	0.23	cps
Silver	107-1	217	253	233	234	7.83	cps
Silver	109-1	70	87	133	97	33.96	cps
Sodium	23-2	20506353	20827451	20365976	20566593	1.15	cps
Strontium	86-1	20303839	20469073	20208557	20327156	0.65	cps
Strontium	88-1	177500951	178857644	176445144	177601246	0.68	cps
Sulfur	34-1	1918565	1937516	1924018	1926699	0.51	cps
Terbium	159-1	35643607	34508483	33885519	34679203	2.57	cps
Terbium	159-2	22129108	22095421	22167431	22130654	0.16	cps
Thallium	203-1	643	657	633	644	1.82	cps
Thallium	205-1	1607	1420	1347	1458	9.20	cps
Tin	118-1	5534	5504	5788	5609	2.78	cps
Titanium	47-1	1804	1520	1470	1598	11.27	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-10

Instrumnet Name :

P7

Client Sample ID :

E2A01

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:05:04

DataFile Name :

033SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	60734	60551	60222	60502	0.43	cps
Vanadium	51-2	1750	1947	1713	1803	6.96	cps
Yttrium	89-1	39293395	37752727	37017209	38021111	3.06	cps
Yttrium	89-2	9445330	9542555	9374172	9454019	0.89	cps
Zinc	66-2	8869	8813	8826	8836	0.34	cps
Zirconium	90-1	4027	3727	3537	3764	6.57	cps
Zirconium	91-1	1458	883	893	1078	30.51	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-11RE Instrumnet Name : P7
Client Sample ID : E2A01D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:08:12 DataFile Name : 034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	7079	10988	7383	8483	25.64	cps
Antimony	121-1	1680	1490	1607	1592	6.02	cps
Arsenic	75-2	1777	1800	1630	1736	5.31	cps
Barium	135-1	526884	529243	529220	528449	0.26	cps
Barium	137-1	913905	920022	917366	917098	0.33	cps
Beryllium	9-1	122	61	100	94	32.75	cps
Bismuth	209-1	19296324	19411706	19464859	19390963	0.44	cps
Bismuth	209-2	15214904	15381296	15216174	15270791	0.63	cps
Bromine	81-1	37170	43009	46650	42276	11.31	cps
Bromine	81-2	6105	6338	6438	6294	2.72	cps
Cadmium	108-1	37	27	43	36	23.58	cps
Cadmium	106-1	10187	10084	10264	10178	0.89	cps
Cadmium	111-1	7185	7133	7208	7175	0.53	cps
Calcium	43-1	4577699	4622073	4569891	4589888	0.61	cps
Calcium	44-1	74183992	73194366	72549306	73309221	1.12	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	8389	9760	9344	9164	7.67	cps
Cobalt	59-2	2130	2117	2157	2135	0.95	cps
Copper	63-2	9436	9707	9533	9559	1.43	cps
Dysprosium	156-1	290	313	287	297	4.90	cps
Dysprosium	156-2	207	177	220	201	11.04	cps
Erbium	164-1	280	233	267	260	9.25	cps
Erbium	164-2	150	183	143	159	13.49	cps
Gadolinium	160-1	437	400	393	410	5.69	cps
Gadolinium	160-2	1403	1540	1523	1489	5.01	cps
Holmium	165-1	32638427	32724595	32748805	32703943	0.18	cps
Holmium	165-2	22408652	22347270	22203991	22319971	0.47	cps
Indium	115-1	27560291	27043584	27212193	27272022	0.97	cps
Indium	115-2	9580795	9587359	9532102	9566752	0.32	cps
Iron	56-2	552135	538240	541278	543884	1.34	cps
Iron	57-2	97859	97165	99493	98173	1.22	cps
Iron	54-2	31420	33427	32315	32387	3.11	cps
Krypton	83-1	307	257	290	284	8.95	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-11RE Instrumnet Name : P7
Client Sample ID : E2A01D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:08:12 DataFile Name : 034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3631	3257	3450	3446	5.42	cps
Lead	207-1	2744	2780	2797	2774	0.98	cps
Lead	208-1	13069	12966	13009	13015	0.40	cps
Lithium	6-1	3238658	3181084	3138174	3185972	1.58	cps
Magnesium	24-2	25554630	25647960	25490685	25564425	0.31	cps
Manganese	55-2	555348	553080	558763	555730	0.51	cps
Molybdenum	94-1	37094	37104	36546	36914	0.87	cps
Molybdenum	95-1	63858	64846	63825	64176	0.90	cps
Molybdenum	96-1	69661	69199	68998	69286	0.49	cps
Molybdenum	97-1	39637	40770	39627	40011	1.64	cps
Molybdenum	98-1	104144	103899	102268	103437	0.99	cps
Neodymium	150-1	153	153	187	164	11.70	cps
Neodymium	150-2	63	77	73	71	9.76	cps
Nickel	60-2	5694	5574	5524	5598	1.56	cps
Phosphorus	31-2	1460	1337	1313	1370	5.75	cps
Potassium	39-2	4155159	4175688	4192870	4174573	0.45	cps
Rhodium	103-1	25291679	25496393	25378650	25388907	0.40	cps
Rhodium	103-2	14897880	15118439	14982500	14999606	0.74	cps
Scandium	45-1	14848660	14829755	14734067	14804161	0.41	cps
Scandium	45-2	1307908	1316853	1303763	1309508	0.51	cps
Selenium	82-1	462	480	416	453	7.31	cps
Selenium	77-2	7	0	3	3	100.05	cps
Selenium	78-2	473	477	490	480	1.84	cps
Silicon	28-1	50562421	50500584	50181086	50414697	0.41	cps
Silver	107-1	237	223	243	234	4.34	cps
Silver	109-1	83	93	87	88	5.80	cps
Sodium	23-2	22106264	21980969	22381528	22156254	0.92	cps
Strontium	86-1	19642367	19930561	19844171	19805700	0.75	cps
Strontium	88-1	172413871	175836084	173526117	173925357	1.00	cps
Sulfur	34-1	1799484	1764055	1755929	1773156	1.31	cps
Terbium	159-1	33417353	33558520	33106573	33360815	0.69	cps
Terbium	159-2	22066842	22030077	22253599	22116839	0.54	cps
Thallium	203-1	547	537	560	548	2.14	cps
Thallium	205-1	1413	1350	1230	1331	7.00	cps
Tin	118-1	6058	6295	6278	6210	2.13	cps
Titanium	47-1	1694	1407	1710	1604	10.64	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-11RE

Instrumnet Name :

P7

Client Sample ID :

E2A01D

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:08:12

DataFile Name :

034SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	59493	60085	59968	59848	0.52	cps
Vanadium	51-2	1727	1737	1833	1766	3.34	cps
Yttrium	89-1	36551954	36528018	36823059	36634343	0.45	cps
Yttrium	89-2	9210450	9251336	9476988	9312925	1.54	cps
Zinc	66-2	8412	8706	8486	8535	1.79	cps
Zirconium	90-1	3570	3681	3474	3575	2.89	cps
Zirconium	91-1	820	767	783	790	3.45	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10LX5 Instrumnet Name : P7
Client Sample ID : E2A01L Dilution Factor : 5
Date & Time Acquired : 2024-11-22 15:11:22 DataFile Name : 035SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1947	1607	1950	1835	10.76	cps
Antimony	121-1	403	377	383	388	3.58	cps
Arsenic	75-2	417	307	283	336	21.22	cps
Barium	135-1	97655	99703	99270	98876	1.09	cps
Barium	137-1	166465	173025	173191	170894	2.24	cps
Beryllium	9-1	89	83	89	87	3.69	cps
Bismuth	209-1	19297386	18864101	19237093	19132860	1.23	cps
Bismuth	209-2	15607106	15080312	15213093	15300170	1.79	cps
Bromine	81-1	21980	21993	22123	22032	0.36	cps
Bromine	81-2	1260	1413	1250	1308	7.00	cps
Cadmium	108-1	43	20	47	37	39.63	cps
Cadmium	106-1	10054	9810	9683	9849	1.91	cps
Cadmium	111-1	7037	6896	6799	6911	1.73	cps
Calcium	43-1	856028	887343	898640	880670	2.51	cps
Calcium	44-1	13199869	13705946	13494019	13466611	1.89	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6261	6678	6371	6437	3.36	cps
Cobalt	59-2	493	537	520	517	4.23	cps
Copper	63-2	3827	3774	3867	3823	1.22	cps
Dysprosium	156-1	63	53	73	63	15.79	cps
Dysprosium	156-2	63	77	60	67	13.23	cps
Erbium	164-1	133	137	123	131	5.29	cps
Erbium	164-2	150	100	110	120	22.05	cps
Gadolinium	160-1	183	197	203	194	5.24	cps
Gadolinium	160-2	1293	1353	1330	1326	2.28	cps
Holmium	165-1	31411230	31272509	31613716	31432485	0.55	cps
Holmium	165-2	21813810	21796539	21929066	21846471	0.33	cps
Indium	115-1	26745980	26442501	26534831	26574437	0.59	cps
Indium	115-2	9458641	9383282	9336355	9392759	0.66	cps
Iron	56-2	123243	122400	122789	122811	0.34	cps
Iron	57-2	19232	19923	19970	19709	2.10	cps
Iron	54-2	9343	9530	9667	9513	1.71	cps
Krypton	83-1	233	243	273	250	8.33	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10LX5 Instrumnet Name : P7
Client Sample ID : E2A01L Dilution Factor : 5
Date & Time Acquired : 2024-11-22 15:11:22 DataFile Name : 035SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2407	2507	2537	2484	2.74	cps
Lead	207-1	2234	2110	2134	2159	3.03	cps
Lead	208-1	9765	9778	9888	9810	0.69	cps
Lithium	6-1	3098835	3084149	3105145	3096043	0.35	cps
Magnesium	24-2	4937522	4845234	4905810	4896189	0.96	cps
Manganese	55-2	22397	22771	22580	22583	0.83	cps
Molybdenum	94-1	7152	7539	7435	7375	2.72	cps
Molybdenum	95-1	11538	11595	11912	11681	1.72	cps
Molybdenum	96-1	12566	13036	12686	12762	1.92	cps
Molybdenum	97-1	7135	7289	7242	7222	1.09	cps
Molybdenum	98-1	18455	18879	19500	18945	2.77	cps
Neodymium	150-1	50	37	50	46	16.89	cps
Neodymium	150-2	17	30	30	26	30.11	cps
Nickel	60-2	1527	1423	1373	1441	5.43	cps
Phosphorus	31-2	663	503	530	566	15.16	cps
Potassium	39-2	873087	866139	870374	869867	0.40	cps
Rhodium	103-1	25122930	25045294	24769662	24979295	0.74	cps
Rhodium	103-2	15219813	14982781	15088770	15097121	0.79	cps
Scandium	45-1	14498996	14236598	13964909	14233501	1.88	cps
Scandium	45-2	1295801	1268649	1267750	1277400	1.25	cps
Selenium	82-1	443	455	406	435	5.96	cps
Selenium	77-2	3	3	0	2	86.60	cps
Selenium	78-2	423	427	473	441	6.34	cps
Silicon	28-1	9778089	9991760	10194700	9988183	2.09	cps
Silver	107-1	193	227	180	200	12.02	cps
Silver	109-1	93	77	77	82	11.70	cps
Sodium	23-2	3908140	3918018	3934636	3920265	0.34	cps
Strontium	86-1	3574165	3698015	3731062	3667747	2.26	cps
Strontium	88-1	31404525	32367847	32259485	32010619	1.65	cps
Sulfur	34-1	558879	567000	565929	563936	0.78	cps
Terbium	159-1	32489617	32157564	32341411	32329531	0.51	cps
Terbium	159-2	21921697	21689970	21786558	21799408	0.53	cps
Thallium	203-1	340	267	343	317	13.68	cps
Thallium	205-1	740	797	847	794	6.72	cps
Tin	118-1	7399	7539	8619	7852	8.50	cps
Titanium	47-1	433	480	500	471	7.26	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-10LX5

Instrumnet Name :

P7

Client Sample ID :

E2A01L

Dilution Factor :

5

Date & Time Acquired :

2024-11-22 15:11:22

DataFile Name :

035SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10784	11278	11375	11146	2.84	cps
Vanadium	51-2	387	333	387	369	8.35	cps
Yttrium	89-1	35688730	34781605	35003169	35157835	1.35	cps
Yttrium	89-2	9212782	9037861	9254059	9168234	1.25	cps
Zinc	66-2	12652	12585	12529	12589	0.49	cps
Zirconium	90-1	2090	2107	2124	2107	0.79	cps
Zirconium	91-1	493	440	587	507	14.65	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10RE Instrumnet Name : P7
Client Sample ID : E2A01 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:14:32 DataFile Name : 036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	8750	7833	7879	8154	6.34	cps
Antimony	121-1	1847	1750	1660	1752	5.33	cps
Arsenic	75-2	1943	1833	1800	1859	4.04	cps
Barium	135-1	558433	556339	552082	555618	0.58	cps
Barium	137-1	970847	968801	959806	966484	0.61	cps
Beryllium	9-1	89	100	83	91	9.35	cps
Bismuth	209-1	20062185	20266975	19919976	20083045	0.87	cps
Bismuth	209-2	15722508	15908505	15470204	15700406	1.40	cps
Bromine	81-1	32138	36468	38650	35752	9.27	cps
Bromine	81-2	4784	4811	4841	4812	0.59	cps
Cadmium	108-1	50	33	33	39	24.75	cps
Cadmium	106-1	10974	10227	10160	10454	4.32	cps
Cadmium	111-1	7687	7232	7172	7364	3.82	cps
Calcium	43-1	4762745	4758909	4759638	4760431	0.04	cps
Calcium	44-1	76313654	75807747	75534872	75885424	0.52	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5138	5074	5308	5173	2.33	cps
Cobalt	59-2	2097	2084	2003	2061	2.45	cps
Copper	63-2	10017	9797	9603	9806	2.11	cps
Dysprosium	156-1	313	320	327	320	2.08	cps
Dysprosium	156-2	267	310	237	271	13.60	cps
Erbium	164-1	247	283	267	266	6.91	cps
Erbium	164-2	150	147	137	144	4.80	cps
Gadolinium	160-1	457	487	473	472	3.18	cps
Gadolinium	160-2	1537	1583	1627	1582	2.84	cps
Holmium	165-1	34229236	33857107	34054447	34046930	0.55	cps
Holmium	165-2	22938717	23108664	23071338	23039573	0.39	cps
Indium	115-1	28250797	27996511	28035293	28094200	0.49	cps
Indium	115-2	9766345	9824421	9813677	9801481	0.32	cps
Iron	56-2	504512	501863	504531	503635	0.30	cps
Iron	57-2	99090	100721	100973	100261	1.02	cps
Iron	54-2	30548	30190	30374	30371	0.59	cps
Krypton	83-1	290	297	210	266	18.16	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-10RE Instrumnet Name : P7
Client Sample ID : E2A01 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:14:32 DataFile Name : 036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3977	4117	4111	4068	1.94	cps
Lead	207-1	3450	3521	3264	3412	3.89	cps
Lead	208-1	15890	15944	15190	15675	2.68	cps
Lithium	6-1	3352454	3314230	3328948	3331877	0.58	cps
Magnesium	24-2	26918065	26399877	26632746	26650230	0.97	cps
Manganese	55-2	60558	61026	59711	60432	1.10	cps
Molybdenum	94-1	39496	39446	39433	39459	0.08	cps
Molybdenum	95-1	66731	66366	65459	66185	0.99	cps
Molybdenum	96-1	72572	71751	71678	72000	0.69	cps
Molybdenum	97-1	41877	42060	41415	41784	0.80	cps
Molybdenum	98-1	107391	108492	107001	107628	0.72	cps
Neodymium	150-1	193	153	200	182	13.85	cps
Neodymium	150-2	97	83	57	79	25.82	cps
Nickel	60-2	4007	4277	4314	4200	3.99	cps
Phosphorus	31-2	1387	1343	1303	1345	3.10	cps
Potassium	39-2	4295474	4297620	4281950	4291682	0.20	cps
Rhodium	103-1	26173999	26126381	26090415	26130265	0.16	cps
Rhodium	103-2	15453337	15479813	15451759	15461636	0.10	cps
Scandium	45-1	15031122	15141412	14961613	15044715	0.60	cps
Scandium	45-2	1333486	1321889	1307654	1321010	0.98	cps
Selenium	82-1	604	476	512	531	12.40	cps
Selenium	77-2	10	7	7	8	24.71	cps
Selenium	78-2	550	457	457	488	11.05	cps
Silicon	28-1	53116213	52045664	51937758	52366545	1.24	cps
Silver	107-1	230	237	270	246	8.73	cps
Silver	109-1	100	117	77	98	20.55	cps
Sodium	23-2	21035788	20991273	20844447	20957169	0.48	cps
Strontium	86-1	20858806	20945030	20724623	20842820	0.53	cps
Strontium	88-1	182416237	181784064	181051284	181750528	0.38	cps
Sulfur	34-1	1847810	1797639	1825837	1823762	1.38	cps
Terbium	159-1	34860027	34507393	34605804	34657741	0.53	cps
Terbium	159-2	22692098	22931166	22800685	22807983	0.52	cps
Thallium	203-1	657	613	517	596	12.04	cps
Thallium	205-1	1577	1473	1313	1455	9.12	cps
Tin	118-1	5014	5124	5011	5050	1.28	cps
Titanium	47-1	1530	1383	1490	1468	5.17	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-10RE

Instrumnet Name :

P7

Client Sample ID :

E2A01

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:14:32

DataFile Name :

036SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	62878	64355	62934	63389	1.32	cps
Vanadium	51-2	1923	1963	1760	1882	5.72	cps
Yttrium	89-1	37796188	37737711	37656208	37730036	0.19	cps
Yttrium	89-2	9557862	9468544	9616305	9547570	0.78	cps
Zinc	66-2	12085	12198	12135	12139	0.47	cps
Zirconium	90-1	14973	3444	3784	7400	88.65	cps
Zirconium	91-1	733	810	797	780	5.25	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-12 Instrumnet Name : P7
Client Sample ID : E2A01S Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:21:00 DataFile Name : 037SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	985146	982578	979948	982557	0.26	cps
Antimony	121-1	2433256	2477376	2460308	2456980	0.91	cps
Arsenic	75-2	51961	51613	52135	51903	0.51	cps
Barium	135-1	12071268	12232375	12025095	12109579	0.90	cps
Barium	137-1	20624079	20863438	20812013	20766510	0.61	cps
Beryllium	9-1	120239	121404	119841	120494	0.67	cps
Bismuth	209-1	20604254	20392888	20015254	20337465	1.47	cps
Bismuth	209-2	15706171	15619177	15402607	15575985	1.00	cps
Bromine	81-1	31687	34835	38163	34895	9.28	cps
Bromine	81-2	4794	4604	4737	4712	2.07	cps
Cadmium	108-1	21172	21139	21146	21152	0.08	cps
Cadmium	106-1	38765	39129	38471	38788	0.85	cps
Cadmium	111-1	326405	331313	329862	329193	0.77	cps
Calcium	43-1	4668608	4729799	4622519	4673642	1.15	cps
Calcium	44-1	74723432	75762662	74680649	75055581	0.82	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1989612	1958793	1972130	1973512	0.78	cps
Cobalt	59-2	7806002	7896872	7736805	7813226	1.03	cps
Copper	63-2	2728877	2701208	2738983	2723023	0.72	cps
Dysprosium	156-1	373	373	433	393	8.81	cps
Dysprosium	156-2	703	713	767	728	4.68	cps
Erbium	164-1	257	240	243	247	3.57	cps
Erbium	164-2	177	190	113	160	25.60	cps
Gadolinium	160-1	403	443	423	423	4.73	cps
Gadolinium	160-2	1430	1477	1530	1479	3.38	cps
Holmium	165-1	34639070	33757407	33575759	33990745	1.67	cps
Holmium	165-2	23078715	22840943	22848644	22922767	0.59	cps
Indium	115-1	28786533	28122145	28142777	28350485	1.33	cps
Indium	115-2	9570805	9616985	9714117	9633969	0.76	cps
Iron	56-2	9483144	9512876	9485566	9493862	0.17	cps
Iron	57-2	328378	326711	327172	327420	0.26	cps
Iron	54-2	604720	600734	601588	602347	0.35	cps
Krypton	83-1	223	247	323	264	19.78	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-12 Instrumnet Name : P7
Client Sample ID : E2A01S Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:21:00 DataFile Name : 037SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	356760	360294	361538	359531	0.69	cps
Lead	207-1	312539	313011	313698	313083	0.19	cps
Lead	208-1	1429010	1437016	1433759	1433262	0.28	cps
Lithium	6-1	3313158	3318797	3285529	3305828	0.54	cps
Magnesium	24-2	26412005	25902935	26221063	26178668	0.98	cps
Manganese	55-2	3738438	3769083	3740884	3749468	0.45	cps
Molybdenum	94-1	38821	39888	38481	39063	1.88	cps
Molybdenum	95-1	67039	67314	65904	66752	1.12	cps
Molybdenum	96-1	70921	72049	72210	71727	0.98	cps
Molybdenum	97-1	40984	41536	41125	41215	0.70	cps
Molybdenum	98-1	106713	107864	107257	107278	0.54	cps
Neodymium	150-1	843	740	763	782	6.93	cps
Neodymium	150-2	240	163	197	200	19.22	cps
Nickel	60-2	2033265	1994553	2013618	2013812	0.96	cps
Phosphorus	31-2	1297	1363	1317	1326	2.58	cps
Potassium	39-2	4115762	4160342	4145712	4140605	0.55	cps
Rhodium	103-1	26447841	26103802	26009638	26187094	0.88	cps
Rhodium	103-2	15017064	15221375	15357823	15198754	1.13	cps
Scandium	45-1	15321660	15052339	14944950	15106316	1.28	cps
Scandium	45-2	1315391	1331516	1319575	1322160	0.63	cps
Selenium	82-1	40135	40582	40472	40396	0.58	cps
Selenium	77-2	4141	3977	3754	3957	4.91	cps
Selenium	78-2	13877	13433	13837	13715	1.79	cps
Silicon	28-1	51688613	52677623	51850863	52072366	1.02	cps
Silver	107-1	1563263	1572173	1568591	1568009	0.29	cps
Silver	109-1	1485950	1508651	1494117	1496239	0.77	cps
Sodium	23-2	20977281	20257831	20505876	20580329	1.78	cps
Strontium	86-1	20588024	20595607	20508444	20564025	0.23	cps
Strontium	88-1	180012644	179912357	179777417	179900806	0.07	cps
Sulfur	34-1	1823782	1805744	1816932	1815486	0.50	cps
Terbium	159-1	35270774	34920806	34278504	34823361	1.45	cps
Terbium	159-2	22761498	22768895	22627074	22719156	0.35	cps
Thallium	203-1	1098668	1110864	1110218	1106584	0.62	cps
Thallium	205-1	2577173	2634253	2645731	2619052	1.40	cps
Tin	118-1	7309	7352	7265	7309	0.59	cps
Titanium	47-1	1617	1593	2068	1759	15.21	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-12 Instrumnet Name : P7
Client Sample ID : E2A01S Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:21:00 DataFile Name : 037SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	62657	63758	63738	63384	0.99	cps
Vanadium	51-2	4178457	4230267	4167307	4192010	0.80	cps
Yttrium	89-1	38214904	37632592	37540343	37795946	0.97	cps
Yttrium	89-2	9470761	9474820	9390474	9445352	0.50	cps
Zinc	66-2	966672	963002	961609	963761	0.27	cps
Zirconium	90-1	3614	3704	3891	3736	3.78	cps
Zirconium	91-1	940	953	937	943	0.93	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-11 Instrumnet Name : P7
Client Sample ID : E2A01D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:24:50 DataFile Name : 038SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6585	6692	8105	7127	11.90	cps
Antimony	121-1	1737	1767	1867	1790	3.80	cps
Arsenic	75-2	1937	2033	1763	1911	7.16	cps
Barium	135-1	542695	542880	540199	541925	0.28	cps
Barium	137-1	941658	943186	936577	940474	0.37	cps
Beryllium	9-1	106	78	89	91	15.41	cps
Bismuth	209-1	20180584	20107472	20018251	20102102	0.40	cps
Bismuth	209-2	15718679	15679781	15466916	15621792	0.87	cps
Bromine	81-1	33207	36047	39322	36192	8.45	cps
Bromine	81-2	4661	4744	4908	4771	2.63	cps
Cadmium	108-1	43	40	57	47	18.90	cps
Cadmium	106-1	10354	9887	10010	10084	2.40	cps
Cadmium	111-1	7321	6976	7041	7113	2.57	cps
Calcium	43-1	4613873	4618439	4591923	4608079	0.31	cps
Calcium	44-1	74067434	74603267	73884251	74184984	0.50	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5851	5518	5875	5748	3.47	cps
Cobalt	59-2	2044	1947	2017	2002	2.49	cps
Copper	63-2	10974	11128	11074	11059	0.70	cps
Dysprosium	156-1	307	283	307	299	4.51	cps
Dysprosium	156-2	260	243	250	251	3.34	cps
Erbium	164-1	233	197	250	227	12.04	cps
Erbium	164-2	140	150	183	158	14.38	cps
Gadolinium	160-1	510	533	440	494	9.82	cps
Gadolinium	160-2	1467	1470	1497	1478	1.11	cps
Holmium	165-1	33856270	33861170	32831746	33516395	1.77	cps
Holmium	165-2	23097264	23084149	22921637	23034350	0.42	cps
Indium	115-1	27879110	27568889	27752318	27733439	0.56	cps
Indium	115-2	9678463	9722472	9579093	9660009	0.76	cps
Iron	56-2	475758	477412	469009	474060	0.94	cps
Iron	57-2	94428	97779	98933	97046	2.41	cps
Iron	54-2	27535	27929	29063	28176	2.82	cps
Krypton	83-1	230	293	250	258	12.56	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-11 Instrumnet Name : P7
Client Sample ID : E2A01D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:24:50 DataFile Name : 038SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3807	3834	3671	3771	2.32	cps
Lead	207-1	3194	3107	3197	3166	1.61	cps
Lead	208-1	14880	14783	14653	14772	0.77	cps
Lithium	6-1	3341534	3275389	3227760	3281561	1.74	cps
Magnesium	24-2	25914715	26186490	26094097	26065101	0.53	cps
Manganese	55-2	58871	58694	58644	58736	0.20	cps
Molybdenum	94-1	37856	38821	38109	38262	1.31	cps
Molybdenum	95-1	65335	64377	64464	64726	0.82	cps
Molybdenum	96-1	70536	69869	68807	69737	1.25	cps
Molybdenum	97-1	40081	40292	40907	40427	1.06	cps
Molybdenum	98-1	103389	103926	103966	103760	0.31	cps
Neodymium	150-1	113	143	140	132	12.44	cps
Neodymium	150-2	117	73	87	92	24.07	cps
Nickel	60-2	4197	4601	4141	4313	5.82	cps
Phosphorus	31-2	1333	1223	1287	1281	4.31	cps
Potassium	39-2	4132160	4176647	4126802	4145203	0.66	cps
Rhodium	103-1	25899034	25585768	25473375	25652725	0.86	cps
Rhodium	103-2	15384403	15274782	15189373	15282853	0.64	cps
Scandium	45-1	14932912	15010087	14894794	14945931	0.39	cps
Scandium	45-2	1325693	1318752	1322829	1322424	0.26	cps
Selenium	82-1	660	522	519	567	14.24	cps
Selenium	77-2	3	17	7	9	78.08	cps
Selenium	78-2	440	430	443	438	1.58	cps
Silicon	28-1	51149843	51973254	51371719	51498272	0.83	cps
Silver	107-1	460	453	487	467	3.78	cps
Silver	109-1	317	233	300	283	15.56	cps
Sodium	23-2	20776998	20543826	20796291	20705705	0.68	cps
Strontium	86-1	20341818	20273476	20315682	20310325	0.17	cps
Strontium	88-1	179430931	177531524	176999831	177987428	0.72	cps
Sulfur	34-1	1937986	1897841	1929215	1921681	1.10	cps
Terbium	159-1	34247536	34253714	33875340	34125530	0.63	cps
Terbium	159-2	22444092	22442571	22619337	22502000	0.45	cps
Thallium	203-1	870	787	670	776	12.95	cps
Thallium	205-1	1893	1937	1653	1828	8.35	cps
Tin	118-1	5408	5311	5574	5431	2.45	cps
Titanium	47-1	1390	1567	1523	1494	6.17	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-11

Instrumnet Name :

P7

Client Sample ID :

E2A01D

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:24:50

DataFile Name :

038SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	61944	62057	61120	61707	0.83	cps
Vanadium	51-2	1940	1717	1750	1802	6.69	cps
Yttrium	89-1	37307257	37142971	36962843	37137690	0.46	cps
Yttrium	89-2	9522128	9413818	9367537	9434494	0.84	cps
Zinc	66-2	9033	8989	8929	8984	0.58	cps
Zirconium	90-1	3664	3524	4199	3795	9.38	cps
Zirconium	91-1	723	673	833	743	11.01	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-13 Instrumnet Name : P7
Client Sample ID : E2A03 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:27:59 DataFile Name : 039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	7576	6828	7539	7315	5.76	cps
Antimony	121-1	1807	1937	1870	1871	3.47	cps
Arsenic	75-2	1897	1717	1803	1806	4.99	cps
Barium	135-1	522983	527159	526755	525633	0.44	cps
Barium	137-1	912606	925498	910077	916060	0.90	cps
Beryllium	9-1	94	100	78	91	12.74	cps
Bismuth	209-1	20449850	19930278	20003661	20127930	1.40	cps
Bismuth	209-2	13692548	15277464	15285539	14751850	6.22	cps
Bromine	81-1	34420	39874	41585	38626	9.69	cps
Bromine	81-2	5298	5641	5228	5389	4.11	cps
Cadmium	108-1	30	53	30	38	35.66	cps
Cadmium	106-1	10857	11018	10407	10761	2.94	cps
Cadmium	111-1	7683	7782	7347	7604	2.99	cps
Calcium	43-1	4481927	4598191	4593125	4557748	1.44	cps
Calcium	44-1	72229154	73107087	72413146	72583129	0.64	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	15959	16430	16282	16224	1.49	cps
Cobalt	59-2	1983	2040	2177	2067	4.81	cps
Copper	63-2	9490	9433	9586	9503	0.82	cps
Dysprosium	156-1	273	280	370	308	17.54	cps
Dysprosium	156-2	293	267	257	272	6.96	cps
Erbium	164-1	213	240	273	242	12.41	cps
Erbium	164-2	143	157	153	151	4.59	cps
Gadolinium	160-1	450	443	480	458	4.27	cps
Gadolinium	160-2	1357	1520	1603	1493	8.40	cps
Holmium	165-1	34541658	33258968	33554424	33785016	1.99	cps
Holmium	165-2	20077113	22228772	22600978	21635621	6.30	cps
Indium	115-1	28202866	27677452	27880778	27920365	0.95	cps
Indium	115-2	8422096	9505945	9604639	9177560	7.15	cps
Iron	56-2	541572	532936	530311	534939	1.10	cps
Iron	57-2	96789	97718	97336	97281	0.48	cps
Iron	54-2	31693	31630	31683	31669	0.11	cps
Krypton	83-1	237	300	273	270	11.78	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-13 Instrumnet Name : P7
Client Sample ID : E2A03 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:27:59 DataFile Name : 039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4221	3874	4014	4036	4.32	cps
Lead	207-1	3414	3227	3227	3289	3.28	cps
Lead	208-1	15994	15397	15213	15535	2.63	cps
Lithium	6-1	3403697	3310951	3339640	3351429	1.42	cps
Magnesium	24-2	25996445	25391746	25240365	25542852	1.57	cps
Manganese	55-2	51143	49929	49642	50238	1.59	cps
Molybdenum	94-1	38931	36940	37277	37716	2.83	cps
Molybdenum	95-1	63450	63791	63356	63533	0.36	cps
Molybdenum	96-1	67699	70214	69162	69025	1.83	cps
Molybdenum	97-1	39761	40506	39470	39912	1.34	cps
Molybdenum	98-1	103248	103701	102221	103057	0.74	cps
Neodymium	150-1	147	140	193	160	18.16	cps
Neodymium	150-2	83	70	97	83	16.00	cps
Nickel	60-2	4514	4677	4714	4635	2.30	cps
Phosphorus	31-2	1460	1440	1460	1453	0.79	cps
Potassium	39-2	4178415	4043175	4087499	4103029	1.68	cps
Rhodium	103-1	26302832	26059957	25881875	26081555	0.81	cps
Rhodium	103-2	13259283	15024801	15027678	14437254	7.07	cps
Scandium	45-1	15152666	15079358	14943633	15058552	0.70	cps
Scandium	45-2	1141411	1285124	1303757	1243431	7.14	cps
Selenium	82-1	587	522	487	532	9.50	cps
Selenium	77-2	0	0	7	2	173.21	cps
Selenium	78-2	413	430	483	442	8.27	cps
Silicon	28-1	51470171	50932893	51186294	51196453	0.53	cps
Silver	107-1	293	313	280	296	5.68	cps
Silver	109-1	187	180	140	169	14.95	cps
Sodium	23-2	20628354	20075255	20151541	20285050	1.48	cps
Strontium	86-1	20193946	20460065	20118827	20257613	0.89	cps
Strontium	88-1	175101384	178285257	176999944	176795528	0.91	cps
Sulfur	34-1	1762530	1759179	1791158	1770956	0.99	cps
Terbium	159-1	34755022	34576042	34338420	34556495	0.60	cps
Terbium	159-2	19632837	22186940	22382316	21400697	7.17	cps
Thallium	203-1	743	640	567	650	13.65	cps
Thallium	205-1	1563	1450	1367	1460	6.76	cps
Tin	118-1	4367	4257	4617	4414	4.18	cps
Titanium	47-1	1577	1527	1988	1697	14.90	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-13

Instrumnet Name :

P7

Client Sample ID :

E2A03

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:27:59

DataFile Name :

039SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	58759	59553	59472	59261	0.74	cps
Vanadium	51-2	1810	1837	1843	1830	0.96	cps
Yttrium	89-1	37775936	37293125	37286861	37451974	0.75	cps
Yttrium	89-2	8081211	9242957	9409090	8911086	8.12	cps
Zinc	66-2	7415	7725	7215	7452	3.45	cps
Zirconium	90-1	3264	3260	3167	3230	1.70	cps
Zirconium	91-1	693	657	583	644	8.69	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-14 Instrumnet Name : P7
Client Sample ID : E2A05 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:31:09 DataFile Name : 040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	7636	7245	7059	7313	4.03	cps
Antimony	121-1	1963	1897	1860	1907	2.75	cps
Arsenic	75-2	1817	1740	1843	1800	2.98	cps
Barium	135-1	553050	549637	548722	550470	0.41	cps
Barium	137-1	960967	959952	950778	957232	0.59	cps
Beryllium	9-1	56	39	100	65	48.74	cps
Bismuth	209-1	19923931	19755291	19708360	19795861	0.57	cps
Bismuth	209-2	15741156	15565295	15369100	15558517	1.20	cps
Bromine	81-1	35767	39326	41374	38822	7.31	cps
Bromine	81-2	5234	5504	5344	5361	2.53	cps
Cadmium	108-1	47	57	50	51	9.96	cps
Cadmium	106-1	11064	10514	10434	10671	3.22	cps
Cadmium	111-1	7802	7390	7342	7511	3.37	cps
Calcium	43-1	4755545	4823369	4752736	4777217	0.84	cps
Calcium	44-1	76183871	75856064	75848591	75962842	0.25	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6355	6198	6141	6231	1.77	cps
Cobalt	59-2	2060	2137	2114	2104	1.87	cps
Copper	63-2	9937	10063	10184	10061	1.23	cps
Dysprosium	156-1	330	377	283	330	14.14	cps
Dysprosium	156-2	233	210	320	254	22.78	cps
Erbium	164-1	270	233	237	247	8.22	cps
Erbium	164-2	197	197	140	178	18.40	cps
Gadolinium	160-1	463	547	450	487	10.77	cps
Gadolinium	160-2	1557	1497	1553	1536	2.20	cps
Holmium	165-1	33066321	33344350	32741274	33050648	0.91	cps
Holmium	165-2	23016150	22778931	22442889	22745990	1.27	cps
Indium	115-1	27381607	27541570	27561484	27494887	0.36	cps
Indium	115-2	9715938	9459405	9658211	9611185	1.40	cps
Iron	56-2	504370	507275	507676	506440	0.36	cps
Iron	57-2	100694	100805	102013	101171	0.72	cps
Iron	54-2	29456	30865	30270	30197	2.34	cps
Krypton	83-1	240	323	277	280	14.92	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-14 Instrumnet Name : P7
Client Sample ID : E2A05 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:31:09 DataFile Name : 040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3320	3270	3430	3340	2.45	cps
Lead	207-1	3047	2750	2884	2894	5.14	cps
Lead	208-1	13423	13149	13313	13295	1.03	cps
Lithium	6-1	3326546	3366317	3253030	3315298	1.73	cps
Magnesium	24-2	26843570	26590500	26696740	26710270	0.48	cps
Manganese	55-2	44716	45017	45492	45075	0.87	cps
Molybdenum	94-1	39222	39857	39299	39460	0.88	cps
Molybdenum	95-1	66574	67565	67897	67345	1.02	cps
Molybdenum	96-1	73152	73219	71460	72610	1.37	cps
Molybdenum	97-1	41947	40890	42385	41741	1.84	cps
Molybdenum	98-1	108792	108768	108351	108637	0.23	cps
Neodymium	150-1	163	300	160	208	38.45	cps
Neodymium	150-2	90	113	87	97	15.03	cps
Nickel	60-2	4501	4217	4237	4318	3.66	cps
Phosphorus	31-2	1300	1307	1323	1310	0.92	cps
Potassium	39-2	4370518	4374783	4390668	4378656	0.24	cps
Rhodium	103-1	25581925	25368175	25277958	25409353	0.61	cps
Rhodium	103-2	15179407	15071734	15182846	15144662	0.42	cps
Scandium	45-1	14719661	15007354	15014544	14913853	1.13	cps
Scandium	45-2	1340481	1320706	1316981	1326056	0.95	cps
Selenium	82-1	555	427	390	457	18.92	cps
Selenium	77-2	3	10	7	7	50.03	cps
Selenium	78-2	440	473	500	471	6.38	cps
Silicon	28-1	53960149	53369288	53844799	53724745	0.58	cps
Silver	107-1	253	287	307	282	9.55	cps
Silver	109-1	133	103	130	122	13.45	cps
Sodium	23-2	21606401	21605288	21618047	21609912	0.03	cps
Strontium	86-1	21253288	21204271	21271404	21242987	0.16	cps
Strontium	88-1	187248204	185193464	185587457	186009708	0.59	cps
Sulfur	34-1	1850483	1820075	1816543	1829034	1.02	cps
Terbium	159-1	33883433	34036352	33919074	33946286	0.24	cps
Terbium	159-2	22483072	22254387	22301030	22346163	0.54	cps
Thallium	203-1	650	547	563	587	9.46	cps
Thallium	205-1	1457	1450	1323	1410	5.33	cps
Tin	118-1	11070	8393	9055	9506	14.67	cps
Titanium	47-1	1483	1820	1430	1578	13.41	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-14

Instrumnet Name :

P7

Client Sample ID :

E2A05

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:31:09

DataFile Name :

040SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	62396	61753	61977	62042	0.53	cps
Vanadium	51-2	1790	2371	1810	1990	16.56	cps
Yttrium	89-1	36696224	36638221	36906049	36746831	0.38	cps
Yttrium	89-2	9380138	9361309	9316202	9352550	0.35	cps
Zinc	66-2	7936	7635	8076	7882	2.85	cps
Zirconium	90-1	3317	3314	3267	3299	0.85	cps
Zirconium	91-1	647	2005	840	1164	63.13	cps

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4877-15Instrumnet Name :P7

Client Sample ID :E2A07Dilution Factor :1

Date & Time Acquired :2024-11-22 15:34:18DataFile Name :041SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	8577	7542	7752	7957	6.88	cps
Antimony	121-1	1627	1690	1873	1730	7.41	cps
Arsenic	75-2	1840	1873	1900	1871	1.61	cps
Barium	135-1	546568	547545	544981	546365	0.24	cps
Barium	137-1	951850	955495	950963	952769	0.25	cps
Beryllium	9-1	67	72	106	81	25.81	cps
Bismuth	209-1	19940268	19442903	18862186	19415119	2.78	cps
Bismuth	209-2	15323876	15335509	15281586	15313657	0.19	cps
Bromine	81-1	35643	39249	40646	38512	6.70	cps
Bromine	81-2	5188	4958	5011	5052	2.38	cps
Cadmium	108-1	27	63	23	38	58.75	cps
Cadmium	106-1	11141	10537	10020	10566	5.31	cps
Cadmium	111-1	7837	7392	7088	7439	5.06	cps
Calcium	43-1	4685155	4769202	4731974	4728777	0.89	cps
Calcium	44-1	75637922	75048811	75472612	75386448	0.40	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	13676	13509	13640	13608	0.64	cps
Cobalt	59-2	2137	2354	2094	2195	6.35	cps
Copper	63-2	9907	10073	10204	10061	1.48	cps
Dysprosium	156-1	270	253	237	253	6.58	cps
Dysprosium	156-2	217	267	210	231	13.40	cps
Erbium	164-1	233	283	243	253	10.44	cps
Erbium	164-2	170	147	143	153	9.47	cps
Gadolinium	160-1	377	427	440	414	8.06	cps
Gadolinium	160-2	1423	1337	1473	1411	4.90	cps
Holmium	165-1	33253211	33689887	31646658	32863252	3.27	cps
Holmium	165-2	22512297	22678851	22256738	22482629	0.95	cps
Indium	115-1	27823151	27214228	26356106	27131162	2.72	cps
Indium	115-2	9460760	9569307	9572520	9534196	0.67	cps
Iron	56-2	497461	496749	495348	496520	0.22	cps
Iron	57-2	98994	99047	99892	99311	0.51	cps
Iron	54-2	29512	29569	29319	29467	0.45	cps
Krypton	83-1	290	327	250	289	13.27	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-15 Instrumnet Name : P7
Client Sample ID : E2A07 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:34:18 DataFile Name : 041SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	9036	8876	8479	8797	3.26	cps
Lead	207-1	7339	7049	7262	7216	2.08	cps
Lead	208-1	34451	33713	33954	34039	1.10	cps
Lithium	6-1	3377951	3327465	3099322	3268246	4.54	cps
Magnesium	24-2	26245450	26352250	26125277	26240992	0.43	cps
Manganese	55-2	77039	77481	76734	77085	0.49	cps
Molybdenum	94-1	39640	39416	39293	39450	0.45	cps
Molybdenum	95-1	65703	64622	64602	64976	0.97	cps
Molybdenum	96-1	70546	70777	70910	70744	0.26	cps
Molybdenum	97-1	41449	40623	40569	40880	1.21	cps
Molybdenum	98-1	104309	103738	104611	104219	0.43	cps
Neodymium	150-1	170	157	177	168	6.07	cps
Neodymium	150-2	97	73	90	87	13.87	cps
Nickel	60-2	4754	4867	4801	4807	1.18	cps
Phosphorus	31-2	1310	1463	1450	1408	6.03	cps
Potassium	39-2	4327962	4262865	4272813	4287880	0.82	cps
Rhodium	103-1	25637684	25694792	24800630	25377702	1.97	cps
Rhodium	103-2	15086191	14967131	15096209	15049843	0.48	cps
Scandium	45-1	15115514	14940241	14297503	14784420	2.91	cps
Scandium	45-2	1319058	1323090	1318655	1320268	0.19	cps
Selenium	82-1	501	359	412	424	17.03	cps
Selenium	77-2	0	10	17	9	94.38	cps
Selenium	78-2	427	440	437	434	1.60	cps
Silicon	28-1	52622179	53145844	52552944	52773656	0.61	cps
Silver	107-1	220	247	227	231	6.01	cps
Silver	109-1	103	133	130	122	13.46	cps
Sodium	23-2	21802199	21856912	21723326	21794146	0.31	cps
Strontium	86-1	19915129	19946330	19916857	19926105	0.09	cps
Strontium	88-1	175838764	173280224	173391577	174170189	0.83	cps
Sulfur	34-1	1819753	1819336	1828174	1822421	0.27	cps
Terbium	159-1	34216556	33960684	32327985	33501742	3.06	cps
Terbium	159-2	22110331	21909511	21887991	21969277	0.56	cps
Thallium	203-1	573	603	513	563	8.13	cps
Thallium	205-1	1427	1403	1260	1363	6.62	cps
Tin	118-1	5898	5978	5691	5856	2.53	cps
Titanium	47-1	9840	1543	1507	4297	111.73	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-15

Instrumnet Name :

P7

Client Sample ID :

E2A07

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:34:18

DataFile Name :

041SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	59680	59974	59010	59555	0.83	cps
Vanadium	51-2	1717	2020	1960	1899	8.46	cps
Yttrium	89-1	37780684	37069475	35671969	36840709	2.91	cps
Yttrium	89-2	9279539	9339090	9216401	9278343	0.66	cps
Zinc	66-2	8016	8286	8386	8229	2.33	cps
Zirconium	90-1	5278	5384	4984	5215	3.97	cps
Zirconium	91-1	1117	1060	1043	1073	3.58	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-16 Instrumnet Name : P7
Client Sample ID : E2A09 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:37:28 DataFile Name : 042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9040	9420	8959	9140	2.69	cps
Antimony	121-1	1667	1663	1817	1716	5.11	cps
Arsenic	75-2	1923	1920	1890	1911	0.96	cps
Barium	135-1	535393	545590	539053	540012	0.96	cps
Barium	137-1	922695	945005	941432	936377	1.28	cps
Beryllium	9-1	94	61	72	76	22.36	cps
Bismuth	209-1	20404188	19906033	19686071	19998764	1.84	cps
Bismuth	209-2	15469393	15292532	15308183	15356703	0.64	cps
Bromine	81-1	32716	36672	37668	35685	7.34	cps
Bromine	81-2	4794	4537	4551	4627	3.12	cps
Cadmium	108-1	43	57	43	48	16.12	cps
Cadmium	106-1	11014	10491	10024	10509	4.72	cps
Cadmium	111-1	7760	7404	7083	7415	4.57	cps
Calcium	43-1	4553952	4681467	4655208	4630209	1.45	cps
Calcium	44-1	72936079	74196147	74349009	73827078	1.05	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4874	4908	4787	4856	1.28	cps
Cobalt	59-2	2174	2167	2187	2176	0.47	cps
Copper	63-2	10087	9640	9967	9898	2.34	cps
Dysprosium	156-1	310	347	327	328	5.60	cps
Dysprosium	156-2	320	363	317	333	7.81	cps
Erbium	164-1	280	237	273	263	8.86	cps
Erbium	164-2	203	147	177	176	16.15	cps
Gadolinium	160-1	470	430	520	473	9.53	cps
Gadolinium	160-2	1443	1603	1563	1537	5.42	cps
Holmium	165-1	34158911	33582030	33401426	33714122	1.17	cps
Holmium	165-2	22702126	22456081	22311336	22489847	0.88	cps
Indium	115-1	28827535	27760574	27780516	28122875	2.17	cps
Indium	115-2	9678638	9609326	9504962	9597642	0.91	cps
Iron	56-2	520223	513838	519211	517757	0.66	cps
Iron	57-2	98537	100080	98634	99084	0.87	cps
Iron	54-2	30371	30885	30635	30630	0.84	cps
Krypton	83-1	290	330	247	289	14.43	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-16 Instrumnet Name : P7
Client Sample ID : E2A09 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:37:28 DataFile Name : 042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4794	4881	4567	4748	3.41	cps
Lead	207-1	4037	4071	3881	3996	2.54	cps
Lead	208-1	18388	18962	17965	18438	2.71	cps
Lithium	6-1	3412517	3345593	3226245	3328118	2.84	cps
Magnesium	24-2	26428065	25939553	25794366	26053995	1.27	cps
Manganese	55-2	58403	57519	57636	57853	0.83	cps
Molybdenum	94-1	37080	37775	37484	37447	0.93	cps
Molybdenum	95-1	63206	64956	65302	64488	1.74	cps
Molybdenum	96-1	68690	70157	69303	69383	1.06	cps
Molybdenum	97-1	39620	40596	40376	40197	1.27	cps
Molybdenum	98-1	103877	104490	103590	103986	0.44	cps
Neodymium	150-1	200	203	230	211	7.79	cps
Neodymium	150-2	120	100	83	101	18.16	cps
Nickel	60-2	4374	4311	4107	4264	3.27	cps
Phosphorus	31-2	1350	1270	1420	1347	5.57	cps
Potassium	39-2	4273677	4246278	4203762	4241239	0.83	cps
Rhodium	103-1	26455930	26036621	25535905	26009485	1.77	cps
Rhodium	103-2	15026029	15073787	14961481	15020432	0.38	cps
Scandium	45-1	15415414	15045262	15077130	15179268	1.35	cps
Scandium	45-2	1331299	1330487	1307110	1322965	1.04	cps
Selenium	82-1	450	405	499	451	10.47	cps
Selenium	77-2	10	7	3	7	50.03	cps
Selenium	78-2	503	467	500	490	4.14	cps
Silicon	28-1	51693926	52070576	51176298	51646933	0.87	cps
Silver	107-1	250	223	257	243	7.25	cps
Silver	109-1	130	100	77	102	26.15	cps
Sodium	23-2	21263300	20803471	20952898	21006556	1.12	cps
Strontium	86-1	19652248	20134479	19980216	19922314	1.24	cps
Strontium	88-1	172658804	175272837	174619884	174183842	0.78	cps
Sulfur	34-1	1764068	1808833	1791561	1788154	1.26	cps
Terbium	159-1	35383717	34228987	34331833	34648179	1.84	cps
Terbium	159-2	22342846	22203746	22177007	22241200	0.40	cps
Thallium	203-1	513	580	573	556	6.61	cps
Thallium	205-1	1467	1373	1083	1308	15.29	cps
Tin	118-1	4681	4721	4551	4651	1.91	cps
Titanium	47-1	1643	2554	1810	2003	24.22	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-16

Instrumnet Name :

P7

Client Sample ID :

E2A09

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:37:28

DataFile Name :

042SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	57885	59579	59138	58867	1.49	cps
Vanadium	51-2	1890	1897	1927	1905	1.03	cps
Yttrium	89-1	38098749	37335784	37303194	37579243	1.20	cps
Yttrium	89-2	9371449	9314669	9260139	9315419	0.60	cps
Zinc	66-2	9290	8933	9240	9154	2.11	cps
Zirconium	90-1	3627	3894	3417	3646	6.56	cps
Zirconium	91-1	780	733	743	752	3.27	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-17 Instrumnet Name : P7
Client Sample ID : E2A20 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:40:37 DataFile Name : 043SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	863	893	893	883	1.96	cps
Antimony	121-1	90	90	160	113	35.66	cps
Arsenic	75-2	3	3	0	2	86.60	cps
Barium	135-1	310	247	293	283	11.59	cps
Barium	137-1	537	457	423	472	12.33	cps
Beryllium	9-1	61	39	44	48	24.01	cps
Bismuth	209-1	19939040	20105745	19799663	19948149	0.77	cps
Bismuth	209-2	15633433	15744049	15633891	15670458	0.41	cps
Bromine	81-1	17407	16923	16546	16959	2.54	cps
Bromine	81-2	360	360	280	333	13.86	cps
Cadmium	108-1	23	27	33	28	18.33	cps
Cadmium	106-1	10434	9710	10164	10102	3.62	cps
Cadmium	111-1	7311	6788	7111	7070	3.73	cps
Calcium	43-1	4357	3907	3774	4013	7.62	cps
Calcium	44-1	83197	80609	78810	80872	2.73	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4661	4684	4644	4663	0.43	cps
Cobalt	59-2	120	87	127	111	19.29	cps
Copper	63-2	2217	2157	2280	2218	2.78	cps
Dysprosium	156-1	20	23	33	26	27.15	cps
Dysprosium	156-2	17	10	7	11	45.82	cps
Erbium	164-1	143	133	110	129	13.27	cps
Erbium	164-2	113	90	90	98	13.78	cps
Gadolinium	160-1	127	127	137	130	4.44	cps
Gadolinium	160-2	1370	1230	1347	1316	5.70	cps
Holmium	165-1	33075162	32710087	32508190	32764480	0.88	cps
Holmium	165-2	22591332	22357238	22294770	22414447	0.70	cps
Indium	115-1	27784477	27742243	27332669	27619796	0.90	cps
Indium	115-2	9624341	9605885	9634976	9621734	0.15	cps
Iron	56-2	41440	41464	40488	41131	1.35	cps
Iron	57-2	1863	1793	1820	1826	1.94	cps
Iron	54-2	4631	4321	4497	4483	3.47	cps
Krypton	83-1	263	257	287	269	5.86	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-17 Instrumnet Name : P7
Client Sample ID : E2A20 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:40:37 DataFile Name : 043SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2084	2057	2114	2085	1.36	cps
Lead	207-1	1773	1783	1710	1756	2.27	cps
Lead	208-1	8244	8111	8011	8122	1.44	cps
Lithium	6-1	3219752	3248799	3165251	3211267	1.32	cps
Magnesium	24-2	3707	3514	3614	3612	2.68	cps
Manganese	55-2	6415	6345	6021	6260	3.35	cps
Molybdenum	94-1	637	657	660	651	1.94	cps
Molybdenum	95-1	127	110	117	118	7.12	cps
Molybdenum	96-1	260	230	217	236	9.42	cps
Molybdenum	97-1	93	103	77	91	14.78	cps
Molybdenum	98-1	177	180	157	171	7.37	cps
Neodymium	150-1	13	13	17	14	13.35	cps
Neodymium	150-2	3	17	3	8	99.04	cps
Nickel	60-2	657	557	500	571	13.89	cps
Phosphorus	31-2	477	443	413	444	7.13	cps
Potassium	39-2	76018	75188	75610	75605	0.55	cps
Rhodium	103-1	26209844	25888314	25744287	25947482	0.92	cps
Rhodium	103-2	15378052	15461110	15367770	15402311	0.33	cps
Scandium	45-1	14643173	14611599	14439016	14564596	0.75	cps
Scandium	45-2	1296254	1291889	1284291	1290812	0.47	cps
Selenium	82-1	432	384	357	391	9.73	cps
Selenium	77-2	0	3	3	2	86.60	cps
Selenium	78-2	457	457	380	431	10.27	cps
Silicon	28-1	740454	741614	745086	742384	0.32	cps
Silver	107-1	233	177	173	194	17.34	cps
Silver	109-1	67	100	73	80	22.05	cps
Sodium	23-2	56757	56383	56416	56519	0.37	cps
Strontium	86-1	2664	2074	1687	2141	22.97	cps
Strontium	88-1	19547	14190	10634	14790	30.33	cps
Sulfur	34-1	313541	313342	318611	315165	0.95	cps
Terbium	159-1	33811818	33327279	33173701	33437599	1.00	cps
Terbium	159-2	22191991	22512778	21958481	22221083	1.25	cps
Thallium	203-1	303	277	253	278	9.01	cps
Thallium	205-1	723	583	527	611	16.57	cps
Tin	118-1	5544	5248	5711	5501	4.27	cps
Titanium	47-1	193	230	223	216	9.06	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4877-17

Instrumnet Name :

P7

Client Sample ID :

E2A20

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:40:37

DataFile Name :

043SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	40	33	17	30	40.05	cps
Vanadium	51-2	107	113	107	109	3.53	cps
Yttrium	89-1	36188683	36123746	35790142	36034190	0.59	cps
Yttrium	89-2	9181645	9375101	9214086	9256944	1.12	cps
Zinc	66-2	6151	6171	6145	6156	0.23	cps
Zirconium	90-1	1793	1737	1727	1752	2.05	cps
Zirconium	91-1	380	340	383	368	6.56	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-18 Instrumnet Name : P7
Client Sample ID : E2A24 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:43:55 DataFile Name : 044SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	953	893	1000	949	5.64	cps
Antimony	121-1	113	100	87	100	13.33	cps
Arsenic	75-2	7	10	17	11	45.82	cps
Barium	135-1	340	273	330	314	11.43	cps
Barium	137-1	513	570	527	537	5.52	cps
Beryllium	9-1	61	83	78	74	15.62	cps
Bismuth	209-1	20465438	20286746	20260586	20337590	0.55	cps
Bismuth	209-2	15910566	15957309	15017523	15628466	3.39	cps
Bromine	81-1	15615	15592	15782	15663	0.66	cps
Bromine	81-2	163	173	167	168	3.03	cps
Cadmium	108-1	27	30	40	32	21.53	cps
Cadmium	106-1	10928	10244	10170	10447	4.00	cps
Cadmium	111-1	7667	7180	7111	7319	4.14	cps
Calcium	43-1	4091	4301	4224	4205	2.53	cps
Calcium	44-1	79101	78254	77976	78444	0.75	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5551	5491	5684	5576	1.78	cps
Cobalt	59-2	190	173	213	192	10.45	cps
Copper	63-2	2527	2650	2347	2508	6.08	cps
Dysprosium	156-1	27	3	17	16	75.27	cps
Dysprosium	156-2	17	13	10	13	25.01	cps
Erbium	164-1	127	127	163	139	15.24	cps
Erbium	164-2	133	90	100	108	21.06	cps
Gadolinium	160-1	137	110	117	121	11.46	cps
Gadolinium	160-2	1257	1400	1173	1277	8.98	cps
Holmium	165-1	33083720	33169866	32881503	33045030	0.45	cps
Holmium	165-2	22859205	22514661	21092885	22155584	4.23	cps
Indium	115-1	27947903	27598263	27521405	27689190	0.82	cps
Indium	115-2	9815412	9750432	9054798	9540214	4.42	cps
Iron	56-2	44807	45542	44031	44793	1.69	cps
Iron	57-2	1800	1953	1913	1889	4.21	cps
Iron	54-2	4751	4807	4697	4752	1.16	cps
Krypton	83-1	287	237	230	251	12.33	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-18 Instrumnet Name : P7
Client Sample ID : E2A24 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:43:55 DataFile Name : 044SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2237	2250	2177	2221	1.76	cps
Lead	207-1	1910	1803	1957	1890	4.16	cps
Lead	208-1	8981	8761	8701	8815	1.67	cps
Lithium	6-1	3351642	3255909	3280551	3296034	1.51	cps
Magnesium	24-2	3104	3170	3004	3093	2.71	cps
Manganese	55-2	8306	8352	8356	8338	0.34	cps
Molybdenum	94-1	673	563	537	591	12.26	cps
Molybdenum	95-1	93	143	147	128	23.38	cps
Molybdenum	96-1	223	243	250	239	5.81	cps
Molybdenum	97-1	53	53	100	69	39.11	cps
Molybdenum	98-1	157	183	153	164	10.00	cps
Neodymium	150-1	20	17	13	17	20.01	cps
Neodymium	150-2	17	3	10	10	66.70	cps
Nickel	60-2	1130	1173	1157	1153	1.89	cps
Phosphorus	31-2	393	390	400	394	1.29	cps
Potassium	39-2	77235	76782	76129	76715	0.72	cps
Rhodium	103-1	26178737	25872822	26249970	26100510	0.77	cps
Rhodium	103-2	15738882	15576591	14410112	15241862	4.76	cps
Scandium	45-1	14767743	14720796	14724622	14737720	0.18	cps
Scandium	45-2	1315672	1307347	1206681	1276567	4.75	cps
Selenium	82-1	463	507	481	483	4.55	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	470	477	450	466	2.98	cps
Silicon	28-1	718959	727564	731690	726071	0.89	cps
Silver	107-1	160	190	153	168	11.64	cps
Silver	109-1	93	60	133	96	38.43	cps
Sodium	23-2	58785	59053	59451	59096	0.57	cps
Strontium	86-1	780	763	697	747	5.91	cps
Strontium	88-1	3004	2884	3004	2964	2.34	cps
Sulfur	34-1	314728	316461	316049	315746	0.29	cps
Terbium	159-1	33822071	33803014	33395685	33673590	0.72	cps
Terbium	159-2	22439454	22441162	20761184	21880600	4.43	cps
Thallium	203-1	293	203	193	230	23.95	cps
Thallium	205-1	633	560	443	546	17.56	cps
Tin	118-1	6175	6158	6008	6114	1.50	cps
Titanium	47-1	230	213	230	224	4.29	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4877-18 Instrumnet Name : P7
Client Sample ID : E2A24 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:43:55 DataFile Name : 044SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	53	53	23	43	39.97	cps
Vanadium	51-2	90	113	87	97	15.03	cps
Yttrium	89-1	36372439	36037853	36025724	36145338	0.54	cps
Yttrium	89-2	9526400	9279603	8767428	9191144	4.21	cps
Zinc	66-2	6238	6615	6388	6414	2.96	cps
Zirconium	90-1	1623	1640	1577	1613	2.03	cps
Zirconium	91-1	363	303	300	322	11.06	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCV002 Instrumnet Name : P7
Client Sample ID : CCV002 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:50:25 DataFile Name : 046CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	25129635	25250794	25318328	25232919	0.38	cps
Antimony	121-1	11198377	11260894	11333449	11264240	0.60	cps
Arsenic	75-2	615248	621346	624483	620359	0.76	cps
Barium	135-1	13467699	13746616	13772688	13662334	1.24	cps
Barium	137-1	23061522	23497274	23805025	23454607	1.59	cps
Beryllium	9-1	1126768	1139265	1146151	1137395	0.86	cps
Bismuth	209-1	17521103	17453713	17529823	17501546	0.24	cps
Bismuth	209-2	13540454	13640892	13662246	13614530	0.48	cps
Bromine	81-1	16246	16589	17160	16665	2.77	cps
Bromine	81-2	160	207	203	190	13.70	cps
Cadmium	108-1	220680	227266	226880	224942	1.64	cps
Cadmium	106-1	318914	326257	324705	323292	1.20	cps
Cadmium	111-1	2958926	3000554	3013090	2990857	0.95	cps
Calcium	43-1	13786521	14096597	14146874	14009998	1.39	cps
Calcium	44-1	220676930	227071337	227433617	225060628	1.69	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4593867	4667473	4767280	4676207	1.86	cps
Cobalt	59-2	7613911	7655825	7629972	7633236	0.28	cps
Copper	63-2	54562091	54403461	53996493	54320681	0.54	cps
Dysprosium	156-1	640	660	650	650	1.54	cps
Dysprosium	156-2	1003	907	1040	983	7.00	cps
Erbium	164-1	680	617	747	681	9.54	cps
Erbium	164-2	483	470	437	463	5.19	cps
Gadolinium	160-1	560	540	563	554	2.28	cps
Gadolinium	160-2	1453	1523	1603	1527	4.92	cps
Holmium	165-1	31301655	31152050	31399485	31284397	0.40	cps
Holmium	165-2	21615383	21542486	21634485	21597451	0.22	cps
Indium	115-1	24498877	25133567	24891432	24841292	1.29	cps
Indium	115-2	8922578	9003510	8805797	8910628	1.12	cps
Iron	56-2	1061393904	1052505904	1056437264	1056779024	0.42	cps
Iron	57-2	26070101	26495771	26523745	26363206	0.96	cps
Iron	54-2	56915699	57296021	58460439	57557386	1.40	cps
Krypton	83-1	360	360	280	333	13.86	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCV002 Instrumnet Name : P7
Client Sample ID : CCV002 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:50:25 DataFile Name : 046CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	39949337	40323184	40118909	40130477	0.47	cps
Lead	207-1	35025634	35221286	35470076	35238999	0.63	cps
Lead	208-1	159299469	160579749	160885058	160254759	0.52	cps
Lithium	6-1	3053220	2964337	2970570	2996042	1.66	cps
Magnesium	24-2	217400417	216362050	217176997	216979821	0.25	cps
Manganese	55-2	35820324	35678740	36454573	35984546	1.15	cps
Molybdenum	94-1	39308665	39558549	40132832	39666682	1.07	cps
Molybdenum	95-1	57093986	57442607	58073826	57536806	0.86	cps
Molybdenum	96-1	62492401	62630306	63794084	62972264	1.14	cps
Molybdenum	97-1	35311698	35789662	36370714	35824025	1.48	cps
Molybdenum	98-1	90862942	92788285	94641099	92764109	2.04	cps
Neodymium	150-1	973	837	913	908	7.55	cps
Neodymium	150-2	317	297	270	294	7.95	cps
Nickel	60-2	1929942	1928431	1942759	1933710	0.41	cps
Phosphorus	31-2	246876	250542	250666	249362	0.86	cps
Potassium	39-2	123494815	124297728	125741081	124511208	0.91	cps
Rhodium	103-1	22443932	22764093	22880522	22696182	1.00	cps
Rhodium	103-2	13732594	13815442	13709224	13752420	0.41	cps
Scandium	45-1	13682639	13772413	14038903	13831318	1.34	cps
Scandium	45-2	1259788	1249932	1282039	1263919	1.30	cps
Selenium	82-1	173979	177369	179130	176826	1.48	cps
Selenium	77-2	19092	18709	18639	18813	1.30	cps
Selenium	78-2	62277	61259	62287	61941	0.95	cps
Silicon	28-1	29602986	29920060	30335325	29952790	1.23	cps
Silver	107-1	14227840	14442897	14526270	14399002	1.07	cps
Silver	109-1	13699575	13643155	13766417	13703049	0.45	cps
Sodium	23-2	338624902	332204855	333844295	334891351	1.00	cps
Strontium	86-1	3506679	3512567	3553683	3524310	0.73	cps
Strontium	88-1	30262502	30715711	31089862	30689358	1.35	cps
Sulfur	34-1	1062003	1188198	1204489	1151563	6.77	cps
Terbium	159-1	31762175	32007837	32058594	31942869	0.50	cps
Terbium	159-2	21044360	21333018	21029638	21135672	0.81	cps
Thallium	203-1	9972301	10078582	10186362	10079082	1.06	cps
Thallium	205-1	24066167	24208787	24170021	24148325	0.31	cps
Tin	118-1	9150542	9263298	9316964	9243601	0.92	cps
Titanium	47-1	13237304	13484479	13629531	13450438	1.47	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCV002

Instrumnet Name :

P7

Client Sample ID :

CCV002

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:50:25

DataFile Name :

046CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	31475583	31878435	31671385	31675134	0.64	cps
Vanadium	51-2	4073505	4100465	4136054	4103341	0.76	cps
Yttrium	89-1	33620317	33746492	34870940	34079250	2.02	cps
Yttrium	89-2	8991564	8934295	9016734	8980864	0.47	cps
Zinc	66-2	8903173	8881737	8900662	8895190	0.13	cps
Zirconium	90-1	19068932	19355446	19811702	19412027	1.93	cps
Zirconium	91-1	4211630	4279788	4338125	4276514	1.48	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB002 Instrumnet Name : P7
Client Sample ID : CCB002 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:53:06 DataFile Name : 047CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1377	1280	1147	1268	9.11	cps
Antimony	121-1	5061	5158	6948	5722	18.58	cps
Arsenic	75-2	33	50	37	40	22.05	cps
Barium	135-1	2507	1473	1190	1723	40.22	cps
Barium	137-1	4541	2484	1910	2978	46.45	cps
Beryllium	9-1	367	217	211	265	33.33	cps
Bismuth	209-1	18179074	19126457	19066684	18790738	2.82	cps
Bismuth	209-2	15191574	15373928	15311680	15292394	0.61	cps
Bromine	81-1	17257	16519	16763	16846	2.23	cps
Bromine	81-2	147	167	163	159	6.74	cps
Cadmium	108-1	90	57	63	70	25.20	cps
Cadmium	106-1	9653	9863	9637	9718	1.30	cps
Cadmium	111-1	7301	7238	7018	7186	2.07	cps
Calcium	43-1	9116	7905	7318	8113	11.30	cps
Calcium	44-1	157911	138667	132086	142888	9.39	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6538	6438	6772	6583	2.60	cps
Cobalt	59-2	507	420	373	433	15.61	cps
Copper	63-2	4988	4734	4587	4770	4.24	cps
Dysprosium	156-1	10	17	7	11	45.82	cps
Dysprosium	156-2	23	17	20	20	16.65	cps
Erbium	164-1	100	150	123	124	20.10	cps
Erbium	164-2	103	53	87	81	31.39	cps
Gadolinium	160-1	117	157	160	144	16.69	cps
Gadolinium	160-2	1347	1347	1267	1320	3.50	cps
Holmium	165-1	29692623	31627442	31774800	31031622	3.74	cps
Holmium	165-2	22170746	22048991	21959908	22059881	0.48	cps
Indium	115-1	25062733	26851093	26907048	26273625	3.99	cps
Indium	115-2	9474475	9475250	9386847	9445524	0.54	cps
Iron	56-2	81241	77079	71057	76459	6.70	cps
Iron	57-2	2704	2584	2820	2702	4.38	cps
Iron	54-2	7622	7462	6958	7347	4.71	cps
Krypton	83-1	287	350	300	312	10.69	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB002 Instrumnet Name : P7
Client Sample ID : CCB002 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:53:06 DataFile Name : 047CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	9370	6141	4834	6782	34.43	cps
Lead	207-1	8166	5391	4224	5927	34.16	cps
Lead	208-1	37328	23665	19602	26865	34.56	cps
Lithium	6-1	2958503	3138423	3128434	3075120	3.29	cps
Magnesium	24-2	10901	10107	9186	10065	8.53	cps
Manganese	55-2	15164	15415	14887	15155	1.74	cps
Molybdenum	94-1	9500	6505	5935	7313	26.19	cps
Molybdenum	95-1	11111	6645	4958	7571	42.00	cps
Molybdenum	96-1	12609	7632	5951	8731	39.66	cps
Molybdenum	97-1	6978	4141	3044	4721	43.01	cps
Molybdenum	98-1	17534	10544	7926	12001	41.39	cps
Neodymium	150-1	17	17	7	13	43.29	cps
Neodymium	150-2	7	7	17	10	57.72	cps
Nickel	60-2	923	860	813	866	6.38	cps
Phosphorus	31-2	410	473	487	457	8.97	cps
Potassium	39-2	83353	83326	81191	82624	1.50	cps
Rhodium	103-1	24241241	25219253	25424091	24961529	2.53	cps
Rhodium	103-2	15387438	15064032	15180443	15210638	1.08	cps
Scandium	45-1	13512663	14382848	14333729	14076414	3.47	cps
Scandium	45-2	1262142	1299401	1281024	1280856	1.45	cps
Selenium	82-1	578	476	419	491	16.41	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	487	430	487	468	6.99	cps
Silicon	28-1	829197	818935	817092	821741	0.79	cps
Silver	107-1	2890	1683	1250	1941	43.78	cps
Silver	109-1	2784	1560	1027	1790	50.32	cps
Sodium	23-2	79933	79038	76435	78469	2.32	cps
Strontium	86-1	1567	1323	1090	1327	17.97	cps
Strontium	88-1	9467	6682	5578	7242	27.67	cps
Sulfur	34-1	297176	297695	299470	298114	0.40	cps
Terbium	159-1	30576917	32345072	32410044	31777344	3.27	cps
Terbium	159-2	21858831	21805091	21779216	21814379	0.19	cps
Thallium	203-1	2120	1483	1130	1578	31.80	cps
Thallium	205-1	4744	3290	2524	3519	32.05	cps
Tin	118-1	10020	9126	9243	9463	5.14	cps
Titanium	47-1	2447	1503	1007	1652	44.27	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB002 Instrumnet Name : P7
Client Sample ID : CCB002 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:53:06 DataFile Name : 047CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	5601	2834	1904	3446	55.82	cps
Vanadium	51-2	250	207	143	200	26.82	cps
Yttrium	89-1	33212893	35273829	35485619	34657447	3.62	cps
Yttrium	89-2	9300878	9234463	9213189	9249510	0.49	cps
Zinc	66-2	14234	14147	14277	14219	0.47	cps
Zirconium	90-1	8726	7659	8493	8292	6.77	cps
Zirconium	91-1	1940	1793	1657	1797	7.89	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-01 Instrumnet Name : P7
Client Sample ID : E29Z2 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:56:23 DataFile Name : 048SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1147	1217	1227	1197	3.64	cps
Antimony	121-1	2217	2440	2674	2444	9.35	cps
Arsenic	75-2	1837	1843	1877	1852	1.16	cps
Barium	135-1	532678	528676	523886	528413	0.83	cps
Barium	137-1	926826	917493	912304	918874	0.80	cps
Beryllium	9-1	111	122	122	119	5.41	cps
Bismuth	209-1	20354386	19898956	19826136	20026492	1.43	cps
Bismuth	209-2	15571601	15535637	15604546	15570595	0.22	cps
Bromine	81-1	32051	34079	36014	34048	5.82	cps
Bromine	81-2	3891	4004	3851	3915	2.03	cps
Cadmium	108-1	57	53	53	54	3.54	cps
Cadmium	106-1	11478	10934	10701	11038	3.61	cps
Cadmium	111-1	8122	7703	7543	7789	3.83	cps
Calcium	43-1	4890990	4804633	4746900	4814175	1.51	cps
Calcium	44-1	78775154	77483566	75312654	77190458	2.27	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	11792	12633	12312	12246	3.47	cps
Cobalt	59-2	2044	2077	2047	2056	0.89	cps
Copper	63-2	16032	15525	16049	15869	1.88	cps
Dysprosium	156-1	347	377	303	342	10.77	cps
Dysprosium	156-2	297	297	263	286	6.74	cps
Erbium	164-1	150	223	197	190	19.54	cps
Erbium	164-2	140	133	133	136	2.84	cps
Gadolinium	160-1	510	563	447	507	11.53	cps
Gadolinium	160-2	1760	1593	1610	1655	5.55	cps
Holmium	165-1	34894057	33587940	33782441	34088146	2.07	cps
Holmium	165-2	22834557	22861416	23086742	22927572	0.60	cps
Indium	115-1	28999889	28692016	28052054	28581320	1.69	cps
Indium	115-2	9882771	9773674	9805830	9820758	0.57	cps
Iron	56-2	187512	182516	188931	186320	1.81	cps
Iron	57-2	91815	93539	92743	92699	0.93	cps
Iron	54-2	12896	12769	12185	12617	3.00	cps
Krypton	83-1	333	293	307	311	6.55	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-01 Instrumnet Name : P7
Client Sample ID : E29Z2 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:56:23 DataFile Name : 048SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3210	3000	2860	3024	5.83	cps
Lead	207-1	2820	2480	2460	2587	7.82	cps
Lead	208-1	12246	11532	11028	11602	5.27	cps
Lithium	6-1	3443177	3381587	3398611	3407792	0.93	cps
Magnesium	24-2	27068848	27081382	26979334	27043188	0.21	cps
Manganese	55-2	34733	34733	34352	34606	0.64	cps
Molybdenum	94-1	39503	39777	38905	39395	1.13	cps
Molybdenum	95-1	66457	66929	65418	66268	1.17	cps
Molybdenum	96-1	72475	71018	70264	71252	1.58	cps
Molybdenum	97-1	41174	41806	41298	41426	0.81	cps
Molybdenum	98-1	106931	106548	104755	106078	1.10	cps
Neodymium	150-1	87	77	60	74	18.10	cps
Neodymium	150-2	57	50	30	46	30.47	cps
Nickel	60-2	6315	6258	6355	6309	0.77	cps
Phosphorus	31-2	1407	1383	1447	1412	2.27	cps
Potassium	39-2	4304801	4308175	4256144	4289706	0.68	cps
Rhodium	103-1	27196714	26519250	26381399	26699121	1.63	cps
Rhodium	103-2	15570486	15384105	15544010	15499534	0.65	cps
Scandium	45-1	15946391	15754650	15303288	15668109	2.11	cps
Scandium	45-2	1351284	1369713	1349415	1356804	0.83	cps
Selenium	82-1	543	591	445	526	14.09	cps
Selenium	77-2	3	3	0	2	86.60	cps
Selenium	78-2	440	443	497	460	6.91	cps
Silicon	28-1	52737038	52231404	52233903	52400781	0.56	cps
Silver	107-1	340	333	310	328	4.81	cps
Silver	109-1	193	193	180	189	4.08	cps
Sodium	23-2	20922203	20933396	20713532	20856377	0.59	cps
Strontium	86-1	19802283	19636127	19207140	19548517	1.57	cps
Strontium	88-1	173076491	169665001	167469204	170070232	1.66	cps
Sulfur	34-1	1793227	1775189	1778900	1782439	0.53	cps
Terbium	159-1	35077313	34672689	34987147	34912383	0.61	cps
Terbium	159-2	22534634	22499408	22690502	22574848	0.45	cps
Thallium	203-1	977	987	917	960	3.94	cps
Thallium	205-1	2490	2350	2134	2325	7.73	cps
Tin	118-1	5068	5128	5582	5259	5.34	cps
Titanium	47-1	920	937	1017	958	5.40	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-01

Instrumnet Name :

P7

Client Sample ID :

E29Z2

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:56:23

DataFile Name :

048SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	59911	60125	60179	60072	0.24	cps
Vanadium	51-2	1897	1733	1773	1801	4.73	cps
Yttrium	89-1	38861879	38720690	37843353	38475307	1.43	cps
Yttrium	89-2	9647849	9527329	9489345	9554841	0.87	cps
Zinc	66-2	12405	12178	12389	12324	1.03	cps
Zirconium	90-1	4244	4051	5044	4446	11.85	cps
Zirconium	91-1	863	1000	1163	1009	14.89	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-02 Instrumnet Name : P7
Client Sample ID : E29Z4 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:59:30 DataFile Name : 049SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1393	1263	1163	1273	9.06	cps
Antimony	121-1	1763	1887	1953	1868	5.16	cps
Arsenic	75-2	1947	1887	1873	1902	2.05	cps
Barium	135-1	530323	530806	529595	530241	0.11	cps
Barium	137-1	921038	924078	912464	919193	0.66	cps
Beryllium	9-1	117	89	117	107	14.93	cps
Bismuth	209-1	20342856	19856334	19930716	20043302	1.31	cps
Bismuth	209-2	15758971	15806069	15510476	15691839	1.01	cps
Bromine	81-1	32332	35192	35529	34351	5.11	cps
Bromine	81-2	3957	4041	4007	4002	1.05	cps
Cadmium	108-1	63	27	50	47	39.76	cps
Cadmium	106-1	11375	10741	10407	10841	4.53	cps
Cadmium	111-1	8015	7590	7320	7641	4.58	cps
Calcium	43-1	4852695	4763583	4766757	4794345	1.05	cps
Calcium	44-1	76592656	76152096	76689722	76478158	0.37	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5761	5404	5604	5590	3.20	cps
Cobalt	59-2	1940	2084	1887	1970	5.16	cps
Copper	63-2	11618	11645	11478	11580	0.77	cps
Dysprosium	156-1	437	367	380	394	9.42	cps
Dysprosium	156-2	243	267	260	257	4.68	cps
Erbium	164-1	137	163	193	164	17.24	cps
Erbium	164-2	147	177	150	158	10.42	cps
Gadolinium	160-1	557	487	593	546	9.93	cps
Gadolinium	160-2	1550	1583	1613	1582	2.00	cps
Holmium	165-1	34479135	33679745	33632870	33930583	1.40	cps
Holmium	165-2	23213816	23000958	22735430	22983401	1.04	cps
Indium	115-1	28712888	28258043	28457198	28476043	0.80	cps
Indium	115-2	9912606	9849618	9712605	9824943	1.04	cps
Iron	56-2	188964	187584	187810	188119	0.39	cps
Iron	57-2	90544	92210	92586	91780	1.18	cps
Iron	54-2	12379	12349	12222	12316	0.68	cps
Krypton	83-1	247	277	300	274	9.74	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-02 Instrumnet Name : P7
Client Sample ID : E29Z4 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 15:59:30 DataFile Name : 049SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4024	4061	4001	4028	0.75	cps
Lead	207-1	3264	3070	3197	3177	3.09	cps
Lead	208-1	15487	15093	15330	15304	1.29	cps
Lithium	6-1	3480167	3388752	3371350	3413423	1.71	cps
Magnesium	24-2	27227879	27205224	27232435	27221846	0.05	cps
Manganese	55-2	34603	34683	34122	34469	0.88	cps
Molybdenum	94-1	38818	38277	37936	38343	1.16	cps
Molybdenum	95-1	65466	65060	63708	64745	1.42	cps
Molybdenum	96-1	70529	70200	69159	69963	1.02	cps
Molybdenum	97-1	41058	40623	40606	40762	0.63	cps
Molybdenum	98-1	105970	105034	106014	105673	0.52	cps
Neodymium	150-1	63	50	117	77	46.02	cps
Neodymium	150-2	17	30	33	27	33.06	cps
Nickel	60-2	4397	4517	4491	4468	1.41	cps
Phosphorus	31-2	1393	1370	1457	1407	3.19	cps
Potassium	39-2	4329028	4361663	4363782	4351491	0.45	cps
Rhodium	103-1	26940435	26068465	26227213	26412038	1.76	cps
Rhodium	103-2	15529378	15448653	15501183	15493071	0.26	cps
Scandium	45-1	15555274	15431824	15317190	15434763	0.77	cps
Scandium	45-2	1377068	1347199	1365929	1363399	1.11	cps
Selenium	82-1	576	441	456	491	15.08	cps
Selenium	77-2	10	0	0	3	173.21	cps
Selenium	78-2	503	507	467	492	4.51	cps
Silicon	28-1	51960913	51996728	51351941	51769860	0.70	cps
Silver	107-1	283	337	280	300	10.60	cps
Silver	109-1	167	163	150	160	5.51	cps
Sodium	23-2	21007866	20881907	20892444	20927406	0.33	cps
Strontium	86-1	19676521	19601520	19272176	19516739	1.10	cps
Strontium	88-1	171317111	170885031	169468461	170556867	0.57	cps
Sulfur	34-1	1794892	1804535	1786592	1795340	0.50	cps
Terbium	159-1	35050254	34445278	34434049	34643194	1.02	cps
Terbium	159-2	22919000	22761855	22643447	22774767	0.61	cps
Thallium	203-1	883	837	797	839	5.17	cps
Thallium	205-1	2027	1933	1923	1961	2.91	cps
Tin	118-1	5501	5398	5591	5497	1.76	cps
Titanium	47-1	810	803	927	847	8.19	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-02

Instrumnet Name :

P7

Client Sample ID :

E29Z4

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 15:59:30

DataFile Name :

049SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	60698	60035	61056	60596	0.85	cps
Vanadium	51-2	1683	1737	1777	1732	2.70	cps
Yttrium	89-1	38139767	38089114	38020716	38083199	0.16	cps
Yttrium	89-2	9622891	9598454	9490796	9570714	0.73	cps
Zinc	66-2	6812	6481	6755	6683	2.64	cps
Zirconium	90-1	4174	4184	4674	4344	6.58	cps
Zirconium	91-1	910	903	997	937	5.56	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-03 Instrumnet Name : P7
Client Sample ID : E29Z6 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:02:40 DataFile Name : 050SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1060	1180	1207	1149	6.80	cps
Antimony	121-1	1687	1710	1843	1747	4.84	cps
Arsenic	75-2	1700	1690	1703	1698	0.41	cps
Barium	135-1	508778	509899	504624	507767	0.55	cps
Barium	137-1	892324	880009	883641	885324	0.71	cps
Beryllium	9-1	78	111	106	98	18.19	cps
Bismuth	209-1	20169533	19920226	19912484	20000748	0.73	cps
Bismuth	209-2	15049490	15474076	15696264	15406610	2.13	cps
Bromine	81-1	30896	34554	36151	33867	7.95	cps
Bromine	81-2	3777	4021	4034	3944	3.66	cps
Cadmium	108-1	30	60	40	43	35.25	cps
Cadmium	106-1	11281	10864	10601	10915	3.14	cps
Cadmium	111-1	7959	7646	7459	7688	3.29	cps
Calcium	43-1	4668905	4583210	4672039	4641385	1.09	cps
Calcium	44-1	73860647	73268637	73399999	73509761	0.42	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	8993	8716	8713	8807	1.83	cps
Cobalt	59-2	1883	1943	1953	1927	1.97	cps
Copper	63-2	10514	11054	10881	10816	2.55	cps
Dysprosium	156-1	347	333	317	332	4.52	cps
Dysprosium	156-2	210	267	277	251	14.32	cps
Erbium	164-1	197	210	193	200	4.41	cps
Erbium	164-2	113	120	147	127	13.92	cps
Gadolinium	160-1	523	443	463	477	8.73	cps
Gadolinium	160-2	1400	1487	1563	1483	5.51	cps
Holmium	165-1	33838542	33397195	33377256	33537664	0.78	cps
Holmium	165-2	22142476	22782572	22977490	22634179	1.93	cps
Indium	115-1	28109409	27854294	28061315	28008339	0.48	cps
Indium	115-2	9493294	9677849	9860579	9677241	1.90	cps
Iron	56-2	213092	212731	211554	212459	0.38	cps
Iron	57-2	89122	90584	90812	90173	1.02	cps
Iron	54-2	14047	13947	13730	13908	1.17	cps
Krypton	83-1	303	277	273	284	5.78	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-03 Instrumnet Name : P7
Client Sample ID : E29Z6 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:02:40 DataFile Name : 050SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3757	6255	3604	4539	32.79	cps
Lead	207-1	2987	4978	3200	3722	29.37	cps
Lead	208-1	13839	22471	13883	16731	29.71	cps
Lithium	6-1	3398600	3424205	3344013	3388939	1.21	cps
Magnesium	24-2	26628333	26346391	26384636	26453120	0.58	cps
Manganese	55-2	140603	140454	139590	140216	0.39	cps
Molybdenum	94-1	37070	37224	36743	37012	0.66	cps
Molybdenum	95-1	62349	62493	62814	62552	0.38	cps
Molybdenum	96-1	67344	66577	66825	66915	0.58	cps
Molybdenum	97-1	39440	39142	39594	39392	0.58	cps
Molybdenum	98-1	100248	100271	100536	100351	0.16	cps
Neodymium	150-1	73	93	113	93	21.43	cps
Neodymium	150-2	47	60	43	50	17.64	cps
Nickel	60-2	3887	3791	3927	3868	1.82	cps
Phosphorus	31-2	1387	1427	1453	1422	2.36	cps
Potassium	39-2	4252770	4215181	4217624	4228525	0.50	cps
Rhodium	103-1	25882998	25804220	25874681	25853967	0.17	cps
Rhodium	103-2	15035661	15249412	15461514	15248862	1.40	cps
Scandium	45-1	15223744	14988841	15152819	15121802	0.80	cps
Scandium	45-2	1301818	1309986	1353180	1321661	2.09	cps
Selenium	82-1	425	464	416	435	5.91	cps
Selenium	77-2	7	0	0	2	173.21	cps
Selenium	78-2	413	473	487	458	8.53	cps
Silicon	28-1	50248066	50540824	50147846	50312245	0.41	cps
Silver	107-1	247	270	257	258	4.54	cps
Silver	109-1	150	130	133	138	7.78	cps
Sodium	23-2	20001518	19786780	19870858	19886386	0.54	cps
Strontium	86-1	18931040	19047794	18729506	18902780	0.85	cps
Strontium	88-1	165359514	167151451	163303724	165271563	1.16	cps
Sulfur	34-1	1752262	1747588	1742726	1747525	0.27	cps
Terbium	159-1	34318176	34034927	33861350	34071484	0.68	cps
Terbium	159-2	21859713	22239610	22665886	22255069	1.81	cps
Thallium	203-1	897	703	733	778	13.38	cps
Thallium	205-1	1930	2180	1663	1925	13.43	cps
Tin	118-1	4794	5141	4664	4867	5.07	cps
Titanium	47-1	817	1177	1027	1007	17.97	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-03

Instrumnet Name :

P7

Client Sample ID :

E29Z6

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:02:40

DataFile Name :

050SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	60805	61011	59000	60272	1.84	cps
Vanadium	51-2	1563	1643	1697	1635	4.11	cps
Yttrium	89-1	37834379	37001791	36999314	37278495	1.29	cps
Yttrium	89-2	9330727	9315941	9586782	9411150	1.62	cps
Zinc	66-2	10027	9677	9593	9765	2.36	cps
Zirconium	90-1	3124	3164	3227	3171	1.64	cps
Zirconium	91-1	610	583	743	646	13.28	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-04 Instrumnet Name : P7
Client Sample ID : E29Z8 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:05:48 DataFile Name : 051SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1587	1427	1500	1505	5.32	cps
Antimony	121-1	1600	1777	1767	1715	5.79	cps
Arsenic	75-2	1933	1753	1827	1838	4.93	cps
Barium	135-1	516460	515059	517182	516234	0.21	cps
Barium	137-1	895258	898021	886307	893195	0.69	cps
Beryllium	9-1	94	100	94	96	3.33	cps
Bismuth	209-1	19552916	19444214	19462008	19486379	0.30	cps
Bismuth	209-2	15500195	15371784	15239670	15370550	0.85	cps
Bromine	81-1	30789	33495	33929	32737	5.20	cps
Bromine	81-2	3764	3841	3821	3808	1.04	cps
Cadmium	108-1	33	37	37	36	5.42	cps
Cadmium	106-1	10681	10127	10114	10307	3.14	cps
Cadmium	111-1	7533	7133	7121	7262	3.23	cps
Calcium	43-1	4694867	4682845	4652466	4676726	0.47	cps
Calcium	44-1	75111491	74376762	74396172	74628142	0.56	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6868	6635	6992	6832	2.65	cps
Cobalt	59-2	1930	1917	1920	1922	0.36	cps
Copper	63-2	16890	17006	17223	17040	0.99	cps
Dysprosium	156-1	343	297	333	324	7.57	cps
Dysprosium	156-2	233	233	267	244	7.87	cps
Erbium	164-1	190	207	183	193	6.22	cps
Erbium	164-2	117	117	140	124	10.82	cps
Gadolinium	160-1	510	453	473	479	6.00	cps
Gadolinium	160-2	1590	1533	1467	1530	4.03	cps
Holmium	165-1	33600005	32880664	33359239	33279969	1.10	cps
Holmium	165-2	22408690	22511420	22379905	22433338	0.31	cps
Indium	115-1	28415628	27865531	27299293	27860151	2.00	cps
Indium	115-2	9536818	9575394	9545085	9552432	0.21	cps
Iron	56-2	186532	184618	184376	185176	0.64	cps
Iron	57-2	90802	91600	90829	91077	0.50	cps
Iron	54-2	12599	12552	12462	12538	0.55	cps
Krypton	83-1	303	203	323	277	23.24	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-04 Instrumnet Name : P7
Client Sample ID : E29Z8 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:05:48 DataFile Name : 051SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4661	4654	4721	4679	0.79	cps
Lead	207-1	3744	3951	3697	3797	3.55	cps
Lead	208-1	17992	18245	18125	18120	0.70	cps
Lithium	6-1	3273343	3275053	3320096	3289498	0.81	cps
Magnesium	24-2	26650560	26906682	26637884	26731709	0.57	cps
Manganese	55-2	83721	83644	83728	83698	0.06	cps
Molybdenum	94-1	37267	37314	36589	37057	1.10	cps
Molybdenum	95-1	63711	63309	63018	63346	0.55	cps
Molybdenum	96-1	67371	67689	67203	67421	0.37	cps
Molybdenum	97-1	39132	39457	39279	39289	0.41	cps
Molybdenum	98-1	101429	101382	102100	101637	0.40	cps
Neodymium	150-1	123	103	107	111	9.65	cps
Neodymium	150-2	50	23	40	38	35.67	cps
Nickel	60-2	4174	4081	4277	4177	2.36	cps
Phosphorus	31-2	1357	1340	1337	1345	0.80	cps
Potassium	39-2	4181978	4132093	4108109	4140727	0.91	cps
Rhodium	103-1	26028639	25379123	25287116	25564959	1.58	cps
Rhodium	103-2	15100683	14986114	15008976	15031924	0.40	cps
Scandium	45-1	15193964	15006948	15017234	15072715	0.70	cps
Scandium	45-2	1342068	1319619	1285468	1315718	2.17	cps
Selenium	82-1	423	537	405	455	15.80	cps
Selenium	77-2	7	7	0	4	86.60	cps
Selenium	78-2	427	473	497	466	7.66	cps
Silicon	28-1	50775159	51214828	50634498	50874828	0.60	cps
Silver	107-1	233	213	230	226	4.75	cps
Silver	109-1	97	130	97	108	17.85	cps
Sodium	23-2	20781114	20472104	20397574	20550264	0.99	cps
Strontium	86-1	19277729	19473795	19211636	19321053	0.71	cps
Strontium	88-1	168097898	169291721	166978681	168122766	0.69	cps
Sulfur	34-1	1765693	1739844	1712452	1739330	1.53	cps
Terbium	159-1	34402581	34028992	33959984	34130519	0.70	cps
Terbium	159-2	22273652	22225996	22122855	22207501	0.35	cps
Thallium	203-1	723	750	780	751	3.77	cps
Thallium	205-1	1730	1690	1783	1735	2.70	cps
Tin	118-1	6175	6175	6145	6165	0.28	cps
Titanium	47-1	943	963	840	916	7.23	cps

LB Number :LB133596

Operator :Jaswal

Lab Sample ID :P4878-04

Instrumnet Name :P7

Client Sample ID :E29Z8

Dilution Factor :1

Date & Time Acquired :2024-11-22 16:05:48

DataFile Name :051SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	59820	59589	59861	59757	0.25	cps
Vanadium	51-2	1863	1847	1760	1823	3.04	cps
Yttrium	89-1	37664713	37533331	37093798	37430614	0.80	cps
Yttrium	89-2	9268078	9433723	9404020	9368607	0.94	cps
Zinc	66-2	9687	9563	9486	9579	1.05	cps
Zirconium	90-1	3310	3370	3440	3374	1.93	cps
Zirconium	91-1	720	653	640	671	6.39	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-05 Instrumnet Name : P7
Client Sample ID : E2A14 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:08:57 DataFile Name : 052SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1073	1147	1250	1157	7.67	cps
Antimony	121-1	1580	1643	1757	1660	5.39	cps
Arsenic	75-2	1777	1853	1787	1806	2.31	cps
Barium	135-1	521899	517196	516886	518660	0.54	cps
Barium	137-1	904208	889076	893634	895639	0.87	cps
Beryllium	9-1	78	67	78	74	8.66	cps
Bismuth	209-1	19665800	19643094	19367293	19558729	0.85	cps
Bismuth	209-2	15371056	15108991	15258463	15246170	0.86	cps
Bromine	81-1	30144	32112	33344	31867	5.06	cps
Bromine	81-2	3607	3751	3570	3643	2.61	cps
Cadmium	108-1	60	43	33	46	29.58	cps
Cadmium	106-1	9927	10471	9960	10119	3.01	cps
Cadmium	111-1	6980	7392	7042	7138	3.11	cps
Calcium	43-1	4721384	4649724	4683588	4684899	0.77	cps
Calcium	44-1	75262494	74238501	73974662	74491886	0.91	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	11708	11815	11448	11657	1.62	cps
Cobalt	59-2	2347	2164	2434	2315	5.96	cps
Copper	63-2	16519	16820	16659	16666	0.90	cps
Dysprosium	156-1	383	353	330	356	7.52	cps
Dysprosium	156-2	343	297	240	293	17.64	cps
Erbium	164-1	160	240	180	193	21.53	cps
Erbium	164-2	153	110	137	133	16.40	cps
Gadolinium	160-1	467	463	453	461	1.50	cps
Gadolinium	160-2	1487	1527	1453	1489	2.47	cps
Holmium	165-1	33057398	32731741	33007014	32932051	0.53	cps
Holmium	165-2	22733924	22478421	22459455	22557267	0.68	cps
Indium	115-1	27661831	27532732	27336119	27510228	0.60	cps
Indium	115-2	9619149	9533961	9509100	9554070	0.60	cps
Iron	56-2	194011	191142	192310	192488	0.75	cps
Iron	57-2	89384	91084	91916	90794	1.42	cps
Iron	54-2	12532	12759	12799	12697	1.13	cps
Krypton	83-1	273	270	227	257	10.14	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-05 Instrumnet Name : P7
Client Sample ID : E2A14 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:08:57 DataFile Name : 052SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3661	3717	3644	3674	1.05	cps
Lead	207-1	2804	3090	3217	3037	6.97	cps
Lead	208-1	14357	14106	14527	14330	1.48	cps
Lithium	6-1	3326156	3245238	3226581	3265992	1.62	cps
Magnesium	24-2	26583945	26766503	26659865	26670104	0.34	cps
Manganese	55-2	76175	76697	76553	76475	0.35	cps
Molybdenum	94-1	37114	36973	36676	36921	0.61	cps
Molybdenum	95-1	62904	62700	63550	63052	0.70	cps
Molybdenum	96-1	68489	68088	67984	68187	0.39	cps
Molybdenum	97-1	39513	40215	39583	39771	0.97	cps
Molybdenum	98-1	103241	102694	102661	102865	0.32	cps
Neodymium	150-1	97	103	87	96	8.78	cps
Neodymium	150-2	17	43	33	31	43.29	cps
Nickel	60-2	9303	9380	9737	9473	2.44	cps
Phosphorus	31-2	1517	1440	1420	1459	3.50	cps
Potassium	39-2	4273272	4304571	4343834	4307226	0.82	cps
Rhodium	103-1	25785833	25725233	25424845	25645304	0.75	cps
Rhodium	103-2	15082717	15031678	14987097	15033831	0.32	cps
Scandium	45-1	14899895	14760119	14662679	14774231	0.81	cps
Scandium	45-2	1288171	1304631	1305148	1299316	0.74	cps
Selenium	82-1	561	495	457	505	10.42	cps
Selenium	77-2	0	3	7	3	100.05	cps
Selenium	78-2	393	547	450	463	16.73	cps
Silicon	28-1	50579638	50328568	50224618	50377608	0.36	cps
Silver	107-1	247	287	230	254	11.45	cps
Silver	109-1	113	93	87	98	14.19	cps
Sodium	23-2	20313240	20049003	20189600	20183948	0.66	cps
Strontium	86-1	19202946	19105282	19256090	19188106	0.40	cps
Strontium	88-1	167094754	168812281	167065031	167657355	0.60	cps
Sulfur	34-1	1744270	1710446	1742763	1732493	1.10	cps
Terbium	159-1	34045744	33789005	33667330	33834026	0.57	cps
Terbium	159-2	22176481	21948116	21899916	22008171	0.67	cps
Thallium	203-1	720	690	647	686	5.38	cps
Thallium	205-1	1737	1527	1577	1613	6.80	cps
Tin	118-1	5558	5461	5611	5543	1.37	cps
Titanium	47-1	893	880	860	878	1.91	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-05 Instrumnet Name : P7
Client Sample ID : E2A14 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:08:57 DataFile Name : 052SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	59697	57768	59335	58933	1.74	cps
Vanadium	51-2	1653	1697	1640	1663	1.78	cps
Yttrium	89-1	37078016	37122491	36517968	36906158	0.91	cps
Yttrium	89-2	9342367	9372150	9315028	9343182	0.31	cps
Zinc	66-2	17881	17911	17584	17792	1.02	cps
Zirconium	90-1	3004	3064	3197	3088	3.21	cps
Zirconium	91-1	780	727	660	722	8.33	cps

LB Number :LB133596Operator :Jaswal

Lab Sample ID :P4878-06Instrumnet Name :P7

Client Sample ID :E2A00Dilution Factor :1

Date & Time Acquired :2024-11-22 16:12:06DataFile Name :053SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1537	1570	1460	1522	3.71	cps
Antimony	121-1	1603	1737	1837	1726	6.78	cps
Arsenic	75-2	1900	1880	2017	1932	3.82	cps
Barium	135-1	533128	537135	536474	535579	0.40	cps
Barium	137-1	916380	935008	933158	928182	1.11	cps
Beryllium	9-1	61	44	56	54	15.80	cps
Bismuth	209-1	20334531	20101561	19813378	20083157	1.30	cps
Bismuth	209-2	15557303	15478946	15368246	15468165	0.61	cps
Bromine	81-1	30632	34353	36689	33891	9.01	cps
Bromine	81-2	4367	4137	4397	4301	3.31	cps
Cadmium	108-1	50	20	33	34	43.64	cps
Cadmium	106-1	11118	10481	10384	10661	3.74	cps
Cadmium	111-1	7827	7396	7329	7517	3.60	cps
Calcium	43-1	4791841	4717507	4808092	4772480	1.01	cps
Calcium	44-1	75791549	76256047	77383102	76476899	1.07	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5574	5731	5658	5654	1.39	cps
Cobalt	59-2	1803	1947	1897	1882	3.87	cps
Copper	63-2	12989	12899	13049	12979	0.58	cps
Dysprosium	156-1	310	327	303	313	3.83	cps
Dysprosium	156-2	277	197	240	238	16.84	cps
Erbium	164-1	130	197	153	160	21.14	cps
Erbium	164-2	117	107	123	116	7.26	cps
Gadolinium	160-1	427	470	407	434	7.45	cps
Gadolinium	160-2	1483	1570	1437	1497	4.52	cps
Holmium	165-1	34394589	34068746	33323990	33929108	1.62	cps
Holmium	165-2	22753559	22738536	22680681	22724259	0.17	cps
Indium	115-1	28921737	28246662	27670995	28279798	2.21	cps
Indium	115-2	9910460	9715865	9836994	9821106	1.00	cps
Iron	56-2	209333	210597	210891	210274	0.39	cps
Iron	57-2	92248	94324	95397	93989	1.70	cps
Iron	54-2	13726	13873	13519	13706	1.30	cps
Krypton	83-1	297	253	220	257	14.98	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-06 Instrumnet Name : P7
Client Sample ID : E2A00 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:12:06 DataFile Name : 053SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3344	3310	3467	3374	2.45	cps
Lead	207-1	2657	2607	2674	2646	1.31	cps
Lead	208-1	12819	12676	13023	12839	1.36	cps
Lithium	6-1	3420645	3314652	3294057	3343118	2.03	cps
Magnesium	24-2	27620716	27853480	27432135	27635444	0.76	cps
Manganese	55-2	39956	39228	39796	39660	0.97	cps
Molybdenum	94-1	37532	38243	38267	38014	1.10	cps
Molybdenum	95-1	65232	64719	65539	65163	0.64	cps
Molybdenum	96-1	69602	70060	69628	69763	0.37	cps
Molybdenum	97-1	39995	40128	40239	40121	0.30	cps
Molybdenum	98-1	105001	104796	104369	104722	0.31	cps
Neodymium	150-1	100	80	60	80	25.00	cps
Neodymium	150-2	27	23	47	32	39.17	cps
Nickel	60-2	3907	4031	3921	3953	1.71	cps
Phosphorus	31-2	1190	1183	1077	1150	5.53	cps
Potassium	39-2	4233105	4262960	4187174	4227746	0.90	cps
Rhodium	103-1	26635344	26542830	25766165	26314780	1.81	cps
Rhodium	103-2	15541396	15206041	15326206	15357881	1.11	cps
Scandium	45-1	15442867	15274601	15148671	15288713	0.97	cps
Scandium	45-2	1346927	1341769	1345234	1344643	0.20	cps
Selenium	82-1	563	608	585	585	3.91	cps
Selenium	77-2	3	0	3	2	86.60	cps
Selenium	78-2	543	470	530	514	7.59	cps
Silicon	28-1	50680278	51734588	51441829	51285565	1.06	cps
Silver	107-1	263	250	200	238	14.04	cps
Silver	109-1	130	103	100	111	14.80	cps
Sodium	23-2	21014155	20971237	21014801	21000064	0.12	cps
Strontium	86-1	19922879	20190423	19866716	19993339	0.87	cps
Strontium	88-1	172671737	174063317	173484244	173406433	0.40	cps
Sulfur	34-1	1714843	1732290	1707456	1718196	0.74	cps
Terbium	159-1	35402359	34632654	33970674	34668563	2.07	cps
Terbium	159-2	22660365	22453818	22388719	22500967	0.63	cps
Thallium	203-1	763	680	643	696	8.84	cps
Thallium	205-1	1643	1553	1403	1533	7.91	cps
Tin	118-1	5448	5401	5348	5399	0.93	cps
Titanium	47-1	753	913	867	844	9.74	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-06

Instrumnet Name :

P7

Client Sample ID :

E2A00

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:12:06

DataFile Name :

053SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	61224	61716	61836	61592	0.53	cps
Vanadium	51-2	1590	1667	1707	1655	3.58	cps
Yttrium	89-1	38613960	37780229	37254926	37883038	1.81	cps
Yttrium	89-2	9589277	9499126	9527590	9538664	0.48	cps
Zinc	66-2	7475	7112	7405	7331	2.63	cps
Zirconium	90-1	3537	3267	3077	3294	7.02	cps
Zirconium	91-1	683	677	640	667	3.50	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-07 Instrumnet Name : P7
Client Sample ID : E2A02 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:15:16 DataFile Name : 054SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1290	1147	1160	1199	6.61	cps
Antimony	121-1	1837	1657	1817	1770	5.57	cps
Arsenic	75-2	1830	1783	1970	1861	5.22	cps
Barium	135-1	556692	558515	558911	558039	0.21	cps
Barium	137-1	971251	964723	964502	966826	0.40	cps
Beryllium	9-1	56	61	83	67	22.05	cps
Bismuth	209-1	19776561	19802222	19777539	19785441	0.07	cps
Bismuth	209-2	15615722	15649625	15444335	15569894	0.71	cps
Bromine	81-1	32489	35336	35650	34491	5.05	cps
Bromine	81-2	3941	3921	4194	4018	3.79	cps
Cadmium	108-1	60	37	50	49	23.94	cps
Cadmium	106-1	10564	10704	10294	10521	1.98	cps
Cadmium	111-1	7433	7554	7224	7404	2.25	cps
Calcium	43-1	4935675	4885276	4768365	4863105	1.76	cps
Calcium	44-1	77812387	77416044	76418737	77215723	0.93	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	7462	7288	6875	7208	4.18	cps
Cobalt	59-2	1990	2087	2047	2041	2.38	cps
Copper	63-2	18588	19066	18648	18767	1.39	cps
Dysprosium	156-1	237	317	330	294	17.14	cps
Dysprosium	156-2	163	220	203	196	14.89	cps
Erbium	164-1	197	163	217	192	14.02	cps
Erbium	164-2	140	147	150	146	3.50	cps
Gadolinium	160-1	337	357	403	366	9.36	cps
Gadolinium	160-2	1413	1540	1547	1500	5.01	cps
Holmium	165-1	33340237	33262533	33295969	33299580	0.12	cps
Holmium	165-2	22773918	22947334	22649170	22790140	0.66	cps
Indium	115-1	27767913	27987513	27718043	27824490	0.52	cps
Indium	115-2	9728463	9788617	9686782	9734621	0.53	cps
Iron	56-2	193850	194848	191753	193483	0.82	cps
Iron	57-2	92264	93965	93961	93397	1.05	cps
Iron	54-2	13213	12976	12585	12925	2.45	cps
Krypton	83-1	210	287	257	251	15.39	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-07 Instrumnet Name : P7
Client Sample ID : E2A02 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:15:16 DataFile Name : 054SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4567	4644	4748	4653	1.94	cps
Lead	207-1	3934	3897	3817	3883	1.54	cps
Lead	208-1	18048	18042	18162	18084	0.37	cps
Lithium	6-1	3276763	3292142	3279999	3282968	0.25	cps
Magnesium	24-2	27272890	27072361	26701089	27015447	1.07	cps
Manganese	55-2	26684	26527	25839	26350	1.71	cps
Molybdenum	94-1	39523	40365	39209	39699	1.51	cps
Molybdenum	95-1	67575	69273	67629	68159	1.42	cps
Molybdenum	96-1	73952	73389	72894	73412	0.72	cps
Molybdenum	97-1	42445	42809	42756	42670	0.46	cps
Molybdenum	98-1	110642	110565	109611	110272	0.52	cps
Neodymium	150-1	80	120	123	108	22.37	cps
Neodymium	150-2	33	30	37	33	10.01	cps
Nickel	60-2	4184	4164	4171	4173	0.24	cps
Phosphorus	31-2	1017	1170	1217	1135	9.22	cps
Potassium	39-2	4325451	4285810	4350812	4320691	0.76	cps
Rhodium	103-1	25970302	25691985	26037727	25900005	0.71	cps
Rhodium	103-2	15432459	15455338	15227726	15371841	0.82	cps
Scandium	45-1	14938363	14873044	15010760	14940722	0.46	cps
Scandium	45-2	1366016	1342038	1327079	1345044	1.46	cps
Selenium	82-1	670	512	563	582	13.87	cps
Selenium	77-2	3	7	0	3	100.05	cps
Selenium	78-2	457	493	500	483	4.83	cps
Silicon	28-1	53362266	52935254	52777269	53024930	0.57	cps
Silver	107-1	190	210	287	229	22.29	cps
Silver	109-1	113	123	87	108	17.58	cps
Sodium	23-2	21381727	21311651	21033887	21242422	0.87	cps
Strontium	86-1	20849127	21067924	20725697	20880916	0.83	cps
Strontium	88-1	183066224	184758531	183076184	183633646	0.53	cps
Sulfur	34-1	1855184	1833358	1817281	1835274	1.04	cps
Terbium	159-1	33888182	33878555	34006181	33924306	0.21	cps
Terbium	159-2	22734121	22692455	22578985	22668520	0.35	cps
Thallium	203-1	647	517	613	592	11.40	cps
Thallium	205-1	1503	1633	1543	1560	4.27	cps
Tin	118-1	4521	4747	4584	4617	2.53	cps
Titanium	47-1	817	847	870	844	3.17	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-07

Instrumnet Name :

P7

Client Sample ID :

E2A02

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:15:16

DataFile Name :

054SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	62724	63410	62305	62813	0.89	cps
Vanadium	51-2	1660	1547	1613	1607	3.55	cps
Yttrium	89-1	37545754	37127203	37255028	37309328	0.57	cps
Yttrium	89-2	9723752	9452812	9533801	9570122	1.45	cps
Zinc	66-2	8509	8486	8613	8536	0.79	cps
Zirconium	90-1	3070	3244	3317	3210	3.95	cps
Zirconium	91-1	687	693	643	674	4.03	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-08 Instrumnet Name : P7
Client Sample ID : E2A02D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:18:24 DataFile Name : 055SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1377	1367	1287	1343	3.67	cps
Antimony	121-1	1737	1687	1713	1712	1.46	cps
Arsenic	75-2	1773	1897	1843	1838	3.37	cps
Barium	135-1	561645	558016	556815	558825	0.45	cps
Barium	137-1	970656	975619	973476	973250	0.26	cps
Beryllium	9-1	28	61	78	56	45.82	cps
Bismuth	209-1	20022413	19600762	19709255	19777477	1.11	cps
Bismuth	209-2	15365708	15363106	15512203	15413672	0.55	cps
Bromine	81-1	33224	35700	36736	35220	5.12	cps
Bromine	81-2	4097	4147	4194	4146	1.17	cps
Cadmium	108-1	53	63	57	58	8.81	cps
Cadmium	106-1	11021	10344	10037	10467	4.81	cps
Cadmium	111-1	7784	7286	7053	7374	5.06	cps
Calcium	43-1	4901121	4953370	4885006	4913166	0.73	cps
Calcium	44-1	78275862	78169069	78481257	78308729	0.20	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	8589	8780	8249	8539	3.15	cps
Cobalt	59-2	1930	2007	1983	1973	1.99	cps
Copper	63-2	11421	11555	11538	11505	0.63	cps
Dysprosium	156-1	270	247	290	269	8.07	cps
Dysprosium	156-2	223	243	190	219	12.31	cps
Erbium	164-1	173	193	203	190	8.04	cps
Erbium	164-2	110	143	127	127	13.16	cps
Gadolinium	160-1	390	383	407	393	3.06	cps
Gadolinium	160-2	1420	1450	1300	1390	5.71	cps
Holmium	165-1	33778661	33089137	32878678	33248825	1.42	cps
Holmium	165-2	22850761	22739795	22748487	22779681	0.27	cps
Indium	115-1	28302243	27709063	27645689	27885665	1.30	cps
Indium	115-2	9777581	9696817	9708050	9727483	0.45	cps
Iron	56-2	234109	229038	230412	231186	1.13	cps
Iron	57-2	93576	95122	95866	94855	1.23	cps
Iron	54-2	15468	15521	15298	15429	0.76	cps
Krypton	83-1	270	303	307	293	6.91	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-08 Instrumnet Name : P7
Client Sample ID : E2A02D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:18:24 DataFile Name : 055SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2974	3127	3064	3055	2.52	cps
Lead	207-1	2397	2687	2477	2520	5.94	cps
Lead	208-1	11529	12152	12152	11944	3.01	cps
Lithium	6-1	3354294	3267197	3162394	3261295	2.95	cps
Magnesium	24-2	27402776	27173550	27372587	27316305	0.46	cps
Manganese	55-2	29673	30274	30484	30144	1.40	cps
Molybdenum	94-1	39787	40252	39898	39979	0.61	cps
Molybdenum	95-1	69970	69038	68747	69252	0.92	cps
Molybdenum	96-1	73758	74991	74307	74352	0.83	cps
Molybdenum	97-1	42943	44126	43615	43561	1.36	cps
Molybdenum	98-1	111525	112234	110678	111479	0.70	cps
Neodymium	150-1	97	83	113	98	15.38	cps
Neodymium	150-2	43	23	50	39	35.69	cps
Nickel	60-2	4781	4701	4784	4755	0.99	cps
Phosphorus	31-2	1010	1090	1073	1058	3.99	cps
Potassium	39-2	4381315	4268170	4351784	4333756	1.35	cps
Rhodium	103-1	26353642	26005462	25770183	26043096	1.13	cps
Rhodium	103-2	15281519	15256799	15330452	15289590	0.25	cps
Scandium	45-1	15272569	14957324	15098207	15109367	1.05	cps
Scandium	45-2	1323507	1329500	1335154	1329387	0.44	cps
Selenium	82-1	598	502	470	523	12.75	cps
Selenium	77-2	3	13	3	7	86.65	cps
Selenium	78-2	430	437	530	466	12.01	cps
Silicon	28-1	52954514	52774231	53097314	52942020	0.31	cps
Silver	107-1	243	277	190	237	18.47	cps
Silver	109-1	127	140	153	140	9.52	cps
Sodium	23-2	21735154	21289746	21601761	21542220	1.06	cps
Strontium	86-1	21074281	20937263	20999850	21003798	0.33	cps
Strontium	88-1	185386204	184978377	184708411	185024331	0.18	cps
Sulfur	34-1	1864075	1878916	1835668	1859553	1.18	cps
Terbium	159-1	34764563	34197910	34420382	34460952	0.83	cps
Terbium	159-2	22413072	22495878	22297726	22402225	0.44	cps
Thallium	203-1	737	607	647	663	10.04	cps
Thallium	205-1	1713	1637	1430	1593	9.20	cps
Tin	118-1	5241	5301	5011	5184	2.95	cps
Titanium	47-1	947	900	913	920	2.61	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-08 Instrumnet Name : P7
Client Sample ID : E2A02D Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:18:24 DataFile Name : 055SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	63049	64566	63260	63625	1.29	cps
Vanadium	51-2	1667	1717	1600	1661	3.52	cps
Yttrium	89-1	37865404	37386452	37264952	37505602	0.85	cps
Yttrium	89-2	9486036	9603410	9525503	9538317	0.63	cps
Zinc	66-2	11418	11931	11645	11665	2.21	cps
Zirconium	90-1	2844	3204	3140	3063	6.28	cps
Zirconium	91-1	603	653	673	643	5.61	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-07LX5 Instrumnet Name : P7
Client Sample ID : E2A02L Dilution Factor : 5
Date & Time Acquired : 2024-11-22 16:21:34 DataFile Name : 056SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	887	930	987	934	5.37	cps
Antimony	121-1	330	417	477	408	18.08	cps
Arsenic	75-2	367	357	357	360	1.60	cps
Barium	135-1	102559	103523	103334	103139	0.50	cps
Barium	137-1	179524	181818	180334	180559	0.64	cps
Beryllium	9-1	44	50	61	52	16.36	cps
Bismuth	209-1	18673566	19144251	19417180	19078332	1.97	cps
Bismuth	209-2	15254759	15312304	15494742	15353935	0.82	cps
Bromine	81-1	21125	21275	21669	21357	1.32	cps
Bromine	81-2	1167	1200	1223	1197	2.38	cps
Cadmium	108-1	27	23	37	29	24.03	cps
Cadmium	106-1	10087	9937	9607	9877	2.49	cps
Cadmium	111-1	7079	6973	6776	6942	2.22	cps
Calcium	43-1	929912	938972	936675	935186	0.50	cps
Calcium	44-1	14241281	14405215	14617304	14421267	1.31	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6361	6388	6548	6433	1.57	cps
Cobalt	59-2	503	537	470	503	6.62	cps
Copper	63-2	5815	5491	5554	5620	3.05	cps
Dysprosium	156-1	60	67	53	60	11.12	cps
Dysprosium	156-2	40	37	47	41	12.39	cps
Erbium	164-1	140	143	157	147	6.01	cps
Erbium	164-2	100	77	73	83	17.44	cps
Gadolinium	160-1	163	190	157	170	10.37	cps
Gadolinium	160-2	1257	1317	1180	1251	5.48	cps
Holmium	165-1	31476198	31839462	32220932	31845531	1.17	cps
Holmium	165-2	21898220	22106065	22114700	22039661	0.56	cps
Indium	115-1	26585348	26866727	26496470	26649515	0.73	cps
Indium	115-2	9549366	9384161	9564838	9499455	1.05	cps
Iron	56-2	70430	70459	69265	70052	0.97	cps
Iron	57-2	18685	19152	19800	19212	2.91	cps
Iron	54-2	6528	6908	6648	6695	2.90	cps
Krypton	83-1	223	277	283	261	12.59	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-07LX5 Instrumnet Name : P7
Client Sample ID : E2A02L Dilution Factor : 5
Date & Time Acquired : 2024-11-22 16:21:34 DataFile Name : 056SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2664	2704	2730	2699	1.24	cps
Lead	207-1	2250	2367	2320	2312	2.54	cps
Lead	208-1	10345	10515	10888	10583	2.63	cps
Lithium	6-1	3096920	3198551	3168584	3154685	1.66	cps
Magnesium	24-2	5135411	5108969	5155074	5133151	0.45	cps
Manganese	55-2	16125	16306	16082	16171	0.73	cps
Molybdenum	94-1	7822	8022	8192	8012	2.31	cps
Molybdenum	95-1	12876	12926	12515	12772	1.75	cps
Molybdenum	96-1	13400	13616	14040	13685	2.38	cps
Molybdenum	97-1	7899	7755	8052	7902	1.88	cps
Molybdenum	98-1	20481	20237	20254	20324	0.67	cps
Neodymium	150-1	20	30	33	28	24.98	cps
Neodymium	150-2	23	33	10	22	52.68	cps
Nickel	60-2	1400	1387	1363	1383	1.34	cps
Phosphorus	31-2	530	493	587	537	8.76	cps
Potassium	39-2	902795	906133	899052	902660	0.39	cps
Rhodium	103-1	25114597	25178408	25587769	25293591	1.02	cps
Rhodium	103-2	15248271	15075436	15124316	15149341	0.59	cps
Scandium	45-1	14386548	14385847	14641743	14471380	1.02	cps
Scandium	45-2	1280770	1280646	1295090	1285502	0.65	cps
Selenium	82-1	615	432	397	481	24.33	cps
Selenium	77-2	0	0	3	1	173.21	cps
Selenium	78-2	497	493	420	470	9.22	cps
Silicon	28-1	10649108	10729234	10705089	10694477	0.38	cps
Silver	107-1	200	193	240	211	11.95	cps
Silver	109-1	90	83	67	80	15.02	cps
Sodium	23-2	4039495	4131522	4047517	4072845	1.25	cps
Strontium	86-1	3863182	3956702	3912517	3910800	1.20	cps
Strontium	88-1	33536379	33813016	34499178	33949524	1.46	cps
Sulfur	34-1	574992	573598	575897	574829	0.20	cps
Terbium	159-1	32366535	32736290	32615948	32572924	0.58	cps
Terbium	159-2	22015018	22140674	22021215	22058969	0.32	cps
Thallium	203-1	453	427	447	442	3.14	cps
Thallium	205-1	1087	1203	1027	1106	8.13	cps
Tin	118-1	7769	7439	7609	7605	2.17	cps
Titanium	47-1	370	337	357	354	4.73	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-07LX5

Instrumnet Name :

P7

Client Sample ID :

E2A02L

Dilution Factor :

5

Date & Time Acquired :

2024-11-22 16:21:34

DataFile Name :

056SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	11568	11342	11572	11494	1.15	cps
Vanadium	51-2	423	340	323	362	14.79	cps
Yttrium	89-1	35214047	34967203	35659988	35280413	1.00	cps
Yttrium	89-2	9210858	9123805	9115589	9150084	0.58	cps
Zinc	66-2	12669	12702	12629	12667	0.29	cps
Zirconium	90-1	2300	2427	2480	2402	3.85	cps
Zirconium	91-1	467	513	563	514	9.40	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-09 Instrumnet Name : P7
Client Sample ID : E2A02S Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:24:43 DataFile Name : 057SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	975792	967937	973920	972550	0.42	cps
Antimony	121-1	2499701	2466756	2465210	2477222	0.79	cps
Arsenic	75-2	52586	52623	52941	52717	0.37	cps
Barium	135-1	12387330	12171684	12116040	12225018	1.17	cps
Barium	137-1	21264532	20971537	20907234	21047768	0.90	cps
Beryllium	9-1	121577	119824	118806	120069	1.17	cps
Bismuth	209-1	20422420	20140917	19974837	20179391	1.12	cps
Bismuth	209-2	15510476	15669875	15451931	15544094	0.73	cps
Bromine	81-1	32817	34437	35436	34230	3.86	cps
Bromine	81-2	3927	3757	3831	3838	2.22	cps
Cadmium	108-1	21760	21336	21339	21478	1.14	cps
Cadmium	106-1	40567	40239	39901	40236	0.83	cps
Cadmium	111-1	335615	333624	331922	333720	0.55	cps
Calcium	43-1	4757531	4774889	4659179	4730533	1.32	cps
Calcium	44-1	75475291	76418486	73992651	75295476	1.62	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1999783	1983497	1978842	1987374	0.55	cps
Cobalt	59-2	7857444	7760370	7755959	7791258	0.74	cps
Copper	63-2	2752190	2707324	2724957	2728157	0.83	cps
Dysprosium	156-1	380	373	383	379	1.34	cps
Dysprosium	156-2	650	680	670	667	2.29	cps
Erbium	164-1	203	170	223	199	13.55	cps
Erbium	164-2	130	157	137	141	9.84	cps
Gadolinium	160-1	427	430	370	409	8.25	cps
Gadolinium	160-2	1647	1483	1537	1556	5.35	cps
Holmium	165-1	34524353	34085064	33514907	34041441	1.49	cps
Holmium	165-2	22851829	23185850	22821652	22953110	0.88	cps
Indium	115-1	28682151	28108376	27777318	28189282	1.62	cps
Indium	115-2	9774567	9761289	9609883	9715247	0.94	cps
Iron	56-2	9228921	9178273	9103719	9170304	0.69	cps
Iron	57-2	320906	321583	319370	320620	0.35	cps
Iron	54-2	593901	589840	587250	590330	0.57	cps
Krypton	83-1	323	290	347	320	8.90	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-09 Instrumnet Name : P7
Client Sample ID : E2A02S Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:24:43 DataFile Name : 057SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	367160	363479	363095	364578	0.62	cps
Lead	207-1	315170	313799	310824	313264	0.71	cps
Lead	208-1	1451821	1442831	1434980	1443211	0.58	cps
Lithium	6-1	3338461	3270021	3198757	3269080	2.14	cps
Magnesium	24-2	26016488	26018179	26223395	26086020	0.46	cps
Manganese	55-2	3762134	3700891	3677815	3713613	1.17	cps
Molybdenum	94-1	38912	39356	39032	39100	0.59	cps
Molybdenum	95-1	66735	66299	66497	66510	0.33	cps
Molybdenum	96-1	72368	72371	72723	72487	0.28	cps
Molybdenum	97-1	41398	42034	41856	41763	0.78	cps
Molybdenum	98-1	107388	107989	107562	107646	0.29	cps
Neodymium	150-1	623	627	623	624	0.31	cps
Neodymium	150-2	113	147	143	134	13.65	cps
Nickel	60-2	2020692	2027615	2010069	2019459	0.44	cps
Phosphorus	31-2	1160	1200	1280	1213	5.04	cps
Potassium	39-2	4125601	4137222	4089065	4117296	0.61	cps
Rhodium	103-1	26297744	26018287	25894875	26070302	0.79	cps
Rhodium	103-2	15291730	15257676	15186531	15245312	0.35	cps
Scandium	45-1	15253776	15335576	14681374	15090242	2.36	cps
Scandium	45-2	1344950	1346756	1311054	1334254	1.51	cps
Selenium	82-1	42020	41158	41480	41552	1.05	cps
Selenium	77-2	4064	4234	4117	4138	2.10	cps
Selenium	78-2	14524	14344	14047	14305	1.68	cps
Silicon	28-1	52399969	52094698	51379941	51958203	1.01	cps
Silver	107-1	1597571	1589196	1576858	1587875	0.66	cps
Silver	109-1	1511092	1507679	1505899	1508223	0.17	cps
Sodium	23-2	20684705	20542751	20829113	20685523	0.69	cps
Strontium	86-1	20764883	20447802	20201864	20471516	1.38	cps
Strontium	88-1	180191991	178571424	177527811	178763742	0.75	cps
Sulfur	34-1	1846024	1788902	1773550	1802825	2.12	cps
Terbium	159-1	35363495	34869111	34621425	34951344	1.08	cps
Terbium	159-2	22707777	22825960	22934715	22822817	0.50	cps
Thallium	203-1	1115227	1116427	1114335	1115330	0.09	cps
Thallium	205-1	2715079	2648461	2634083	2665874	1.62	cps
Tin	118-1	7175	6745	6835	6918	3.28	cps
Titanium	47-1	957	1013	920	963	4.88	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-09

Instrumnet Name :

P7

Client Sample ID :

E2A02S

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:24:43

DataFile Name :

057SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	62536	62717	62556	62603	0.16	cps
Vanadium	51-2	4246838	4190325	4149534	4195566	1.16	cps
Yttrium	89-1	38203706	38047740	37080576	37777341	1.61	cps
Yttrium	89-2	9455600	9323619	9377464	9385561	0.71	cps
Zinc	66-2	962681	959436	955774	959297	0.36	cps
Zirconium	90-1	3027	3077	3234	3113	3.46	cps
Zirconium	91-1	777	763	830	790	4.47	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-10 Instrumnet Name : P7
Client Sample ID : E2A04 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:27:39 DataFile Name : 058SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1247	1280	1300	1276	2.11	cps
Antimony	121-1	2007	1973	1863	1948	3.85	cps
Arsenic	75-2	1930	1817	1903	1883	3.15	cps
Barium	135-1	560486	559187	560133	559935	0.12	cps
Barium	137-1	971372	973387	976244	973668	0.25	cps
Beryllium	9-1	67	61	89	72	20.35	cps
Bismuth	209-1	20570268	19629108	17725705	19308361	7.51	cps
Bismuth	209-2	15513660	15407061	15422461	15447728	0.37	cps
Bromine	81-1	31808	34186	35553	33849	5.60	cps
Bromine	81-2	3724	4204	3941	3956	6.08	cps
Cadmium	108-1	27	30	57	38	43.52	cps
Cadmium	106-1	11148	9974	9510	10210	8.27	cps
Cadmium	111-1	7848	7030	6717	7199	8.11	cps
Calcium	43-1	4769513	4779779	4841119	4796803	0.81	cps
Calcium	44-1	76100787	77078001	76826639	76668476	0.66	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5888	6048	5951	5962	1.35	cps
Cobalt	59-2	2177	2184	2170	2177	0.31	cps
Copper	63-2	16085	16005	16146	16079	0.44	cps
Dysprosium	156-1	303	250	263	272	10.20	cps
Dysprosium	156-2	217	250	230	232	7.23	cps
Erbium	164-1	193	210	200	201	4.17	cps
Erbium	164-2	167	117	110	131	23.62	cps
Gadolinium	160-1	370	410	407	396	5.61	cps
Gadolinium	160-2	1393	1453	1527	1458	4.58	cps
Holmium	165-1	33943253	33111401	29989146	32347933	6.44	cps
Holmium	165-2	22739890	22476306	22852666	22689621	0.85	cps
Indium	115-1	28666333	27459169	24792759	26972754	7.35	cps
Indium	115-2	9623783	9668382	9693699	9661955	0.37	cps
Iron	56-2	195773	194270	194578	194874	0.41	cps
Iron	57-2	91617	92261	93139	92339	0.83	cps
Iron	54-2	12986	12852	12519	12786	1.88	cps
Krypton	83-1	280	287	347	304	12.06	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-10 Instrumnet Name : P7
Client Sample ID : E2A04 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:27:39 DataFile Name : 058SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	3224	3054	3254	3177	3.40	cps
Lead	207-1	2664	2634	2667	2655	0.69	cps
Lead	208-1	12636	12166	12396	12399	1.90	cps
Lithium	6-1	3391295	3212609	2915972	3173292	7.57	cps
Magnesium	24-2	27499540	26776455	27193228	27156408	1.34	cps
Manganese	55-2	34583	35061	34914	34853	0.70	cps
Molybdenum	94-1	39874	39807	39570	39750	0.40	cps
Molybdenum	95-1	67789	70100	68342	68744	1.76	cps
Molybdenum	96-1	73322	74820	74864	74335	1.18	cps
Molybdenum	97-1	43448	43344	43518	43437	0.20	cps
Molybdenum	98-1	110256	111884	111041	111060	0.73	cps
Neodymium	150-1	93	90	83	89	5.73	cps
Neodymium	150-2	43	40	63	49	25.81	cps
Nickel	60-2	4327	4254	4201	4261	1.49	cps
Phosphorus	31-2	1087	1043	1073	1068	2.08	cps
Potassium	39-2	4333009	4335601	4301791	4323467	0.44	cps
Rhodium	103-1	26420980	25464900	23106957	24997612	6.82	cps
Rhodium	103-2	15018695	15277677	15082682	15126351	0.89	cps
Scandium	45-1	15170253	14654762	13338861	14387959	6.56	cps
Scandium	45-2	1317449	1330351	1300581	1316127	1.13	cps
Selenium	82-1	578	539	494	537	7.82	cps
Selenium	77-2	13	3	0	6	124.93	cps
Selenium	78-2	387	433	550	457	18.42	cps
Silicon	28-1	52267248	52691501	52750393	52569714	0.50	cps
Silver	107-1	640	547	413	533	21.36	cps
Silver	109-1	357	337	343	346	2.95	cps
Sodium	23-2	21785496	21387501	21556427	21576475	0.93	cps
Strontium	86-1	21232889	21574663	21660249	21489267	1.05	cps
Strontium	88-1	185878504	189014217	187551131	187481284	0.84	cps
Sulfur	34-1	1807316	1823277	1791386	1807326	0.88	cps
Terbium	159-1	34778005	33567436	30469720	32938387	6.75	cps
Terbium	159-2	22349569	22453631	22353698	22385632	0.26	cps
Thallium	203-1	1067	967	833	956	12.25	cps
Thallium	205-1	2474	2347	2070	2297	8.98	cps
Tin	118-1	5148	4991	4834	4991	3.14	cps
Titanium	47-1	880	903	903	896	1.50	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-10

Instrumnet Name :

P7

Client Sample ID :

E2A04

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:27:39

DataFile Name :

058SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	62787	63531	63538	63285	0.68	cps
Vanadium	51-2	2003	2043	1963	2003	2.00	cps
Yttrium	89-1	37890624	36196342	33211573	35766179	6.62	cps
Yttrium	89-2	9213907	9339024	9381263	9311398	0.93	cps
Zinc	66-2	7785	7946	7969	7900	1.26	cps
Zirconium	90-1	3354	3154	2960	3156	6.23	cps
Zirconium	91-1	643	670	613	642	4.41	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-11 Instrumnet Name : P7
Client Sample ID : E2A06 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:30:47 DataFile Name : 059SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1950	1583	1740	1758	10.47	cps
Antimony	121-1	1830	1837	1767	1811	2.13	cps
Arsenic	75-2	1953	1823	1790	1856	4.65	cps
Barium	135-1	548535	553463	549217	550405	0.49	cps
Barium	137-1	952822	957339	954069	954743	0.24	cps
Beryllium	9-1	67	83	33	61	41.67	cps
Bismuth	209-1	20226746	20088158	19725613	20013506	1.29	cps
Bismuth	209-2	15587397	15495366	15535242	15539335	0.30	cps
Bromine	81-1	32322	33638	35596	33852	4.87	cps
Bromine	81-2	3694	3854	3964	3837	3.54	cps
Cadmium	108-1	73	67	37	59	33.16	cps
Cadmium	106-1	11021	10284	10591	10632	3.48	cps
Cadmium	111-1	7720	7205	7454	7460	3.45	cps
Calcium	43-1	4764920	4772255	4679090	4738755	1.09	cps
Calcium	44-1	75721727	76473616	75121394	75772246	0.89	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5561	5771	5501	5611	2.53	cps
Cobalt	59-2	2060	1973	2067	2033	2.56	cps
Copper	63-2	18348	18258	18475	18360	0.59	cps
Dysprosium	156-1	263	233	253	250	6.11	cps
Dysprosium	156-2	213	177	203	198	9.58	cps
Erbium	164-1	223	220	177	207	12.60	cps
Erbium	164-2	107	117	133	119	11.33	cps
Gadolinium	160-1	357	387	387	377	4.60	cps
Gadolinium	160-2	1520	1423	1423	1456	3.83	cps
Holmium	165-1	34008963	33385300	33410040	33601434	1.05	cps
Holmium	165-2	22900267	22724697	22522171	22715712	0.83	cps
Indium	115-1	28662652	27979779	27995212	28212548	1.38	cps
Indium	115-2	9757612	9703421	9606492	9689175	0.79	cps
Iron	56-2	173505	173195	174132	173610	0.27	cps
Iron	57-2	88867	89786	91540	90064	1.51	cps
Iron	54-2	11261	11454	12005	11573	3.34	cps
Krypton	83-1	233	313	267	271	14.82	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-11 Instrumnet Name : P7
Client Sample ID : E2A06 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:30:47 DataFile Name : 059SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2447	2357	2497	2434	2.92	cps
Lead	207-1	1980	2007	2017	2001	0.95	cps
Lead	208-1	9365	9198	9648	9404	2.42	cps
Lithium	6-1	3308353	3299447	3287207	3298336	0.32	cps
Magnesium	24-2	26603426	26688662	26609460	26633850	0.18	cps
Manganese	55-2	24831	24837	25181	24950	0.80	cps
Molybdenum	94-1	39386	39527	39390	39434	0.20	cps
Molybdenum	95-1	66909	67234	68429	67524	1.19	cps
Molybdenum	96-1	73490	73199	73101	73263	0.28	cps
Molybdenum	97-1	42839	42970	42842	42884	0.17	cps
Molybdenum	98-1	110877	111260	111350	111162	0.23	cps
Neodymium	150-1	67	90	100	86	19.99	cps
Neodymium	150-2	27	40	30	32	21.53	cps
Nickel	60-2	4381	4337	4261	4326	1.41	cps
Phosphorus	31-2	1100	1123	1223	1149	5.70	cps
Potassium	39-2	4369532	4295906	4357412	4340950	0.91	cps
Rhodium	103-1	26224300	26032586	25794870	26017252	0.83	cps
Rhodium	103-2	15561520	15199672	15160722	15307304	1.44	cps
Scandium	45-1	15349436	15129963	14898017	15125805	1.49	cps
Scandium	45-2	1301545	1320057	1352381	1324661	1.94	cps
Selenium	82-1	604	472	426	501	18.44	cps
Selenium	77-2	17	3	7	9	78.08	cps
Selenium	78-2	533	550	477	520	7.39	cps
Silicon	28-1	52273778	52627056	53003393	52634742	0.69	cps
Silver	107-1	307	323	340	323	5.16	cps
Silver	109-1	140	180	150	157	13.29	cps
Sodium	23-2	21806024	21873067	21660391	21779827	0.50	cps
Strontium	86-1	21399699	21327953	21254495	21327382	0.34	cps
Strontium	88-1	186486824	185546044	186683257	186238708	0.33	cps
Sulfur	34-1	1800189	1792491	1775686	1789455	0.70	cps
Terbium	159-1	34562560	34816721	34042833	34474038	1.14	cps
Terbium	159-2	22586459	22696117	22510374	22597650	0.41	cps
Thallium	203-1	753	653	717	708	7.15	cps
Thallium	205-1	1800	1787	1643	1743	4.98	cps
Tin	118-1	5041	4754	4701	4832	3.79	cps
Titanium	47-1	843	847	783	824	4.32	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

P4878-11

Instrumnet Name :

P7

Client Sample ID :

E2A06

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:30:47

DataFile Name :

059SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	62191	60996	61154	61447	1.06	cps
Vanadium	51-2	1700	1633	1837	1723	6.02	cps
Yttrium	89-1	37570227	37431280	37318033	37439847	0.34	cps
Yttrium	89-2	9493942	9383349	9346393	9407895	0.82	cps
Zinc	66-2	7285	7429	7529	7414	1.65	cps
Zirconium	90-1	3164	3531	3154	3283	6.54	cps
Zirconium	91-1	613	667	670	650	4.89	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-12 Instrumnet Name : P7
Client Sample ID : E2A08 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:33:59 DataFile Name : 060SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1280	1160	1180	1207	5.33	cps
Antimony	121-1	1690	1670	1633	1665	1.73	cps
Arsenic	75-2	1950	1827	1840	1872	3.62	cps
Barium	135-1	558517	556104	559272	557965	0.30	cps
Barium	137-1	970239	969111	969929	969760	0.06	cps
Beryllium	9-1	67	67	72	69	4.68	cps
Bismuth	209-1	19761223	19662803	19851983	19758670	0.48	cps
Bismuth	209-2	15472869	15557844	15398382	15476365	0.52	cps
Bromine	81-1	33077	34694	37387	35053	6.21	cps
Bromine	81-2	3984	4244	4154	4127	3.20	cps
Cadmium	108-1	50	30	30	37	31.49	cps
Cadmium	106-1	10597	10601	10491	10563	0.59	cps
Cadmium	111-1	7453	7489	7386	7443	0.71	cps
Calcium	43-1	4811550	4821302	4809929	4814260	0.13	cps
Calcium	44-1	75925059	77267406	76558601	76583688	0.88	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5434	5188	5261	5294	2.39	cps
Cobalt	59-2	2034	2030	2060	2041	0.81	cps
Copper	63-2	16439	16132	16676	16416	1.66	cps
Dysprosium	156-1	223	247	270	247	9.46	cps
Dysprosium	156-2	180	170	163	171	4.90	cps
Erbium	164-1	180	217	197	198	9.28	cps
Erbium	164-2	157	140	77	124	33.92	cps
Gadolinium	160-1	317	383	383	361	10.66	cps
Gadolinium	160-2	1517	1500	1380	1466	5.09	cps
Holmium	165-1	32963815	33031260	33211060	33068712	0.39	cps
Holmium	165-2	22753577	22673399	22571373	22666116	0.40	cps
Indium	115-1	27572267	27555228	27518068	27548521	0.10	cps
Indium	115-2	9668302	9695432	9736007	9699914	0.35	cps
Iron	56-2	169227	168115	168758	168700	0.33	cps
Iron	57-2	91134	92523	93089	92248	1.09	cps
Iron	54-2	11394	11311	11514	11407	0.90	cps
Krypton	83-1	277	253	300	277	8.43	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-12 Instrumnet Name : P7
Client Sample ID : E2A08 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:33:59 DataFile Name : 060SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2340	2507	2560	2469	4.65	cps
Lead	207-1	2064	2014	2014	2030	1.42	cps
Lead	208-1	9588	9858	9648	9698	1.46	cps
Lithium	6-1	3299674	3228734	3227089	3251833	1.27	cps
Magnesium	24-2	27006086	27182281	26784423	26990930	0.74	cps
Manganese	55-2	34623	34650	35248	34840	1.01	cps
Molybdenum	94-1	38795	39226	38557	38859	0.87	cps
Molybdenum	95-1	66664	66704	66513	66627	0.15	cps
Molybdenum	96-1	71658	71420	72716	71931	0.96	cps
Molybdenum	97-1	42341	42237	41382	41987	1.25	cps
Molybdenum	98-1	107807	107619	105343	106923	1.28	cps
Neodymium	150-1	80	90	77	82	8.44	cps
Neodymium	150-2	43	53	37	44	18.87	cps
Nickel	60-2	4287	4007	4291	4195	3.88	cps
Phosphorus	31-2	1187	1220	1200	1202	1.40	cps
Potassium	39-2	4391924	4310537	4380829	4361097	1.01	cps
Rhodium	103-1	25684740	25643895	25956652	25761762	0.66	cps
Rhodium	103-2	15274712	15177741	15212901	15221784	0.32	cps
Scandium	45-1	14717180	14983068	14785176	14828475	0.93	cps
Scandium	45-2	1313784	1320932	1328474	1321064	0.56	cps
Selenium	82-1	534	505	373	471	18.28	cps
Selenium	77-2	7	7	10	8	24.71	cps
Selenium	78-2	507	487	450	481	5.97	cps
Silicon	28-1	53538278	52590513	53095303	53074698	0.89	cps
Silver	107-1	223	193	300	239	23.03	cps
Silver	109-1	127	140	113	127	10.52	cps
Sodium	23-2	22573420	22583029	22372137	22509529	0.53	cps
Strontium	86-1	20287483	20340308	20170243	20266011	0.43	cps
Strontium	88-1	176557344	177462957	176446057	176822120	0.32	cps
Sulfur	34-1	1829342	1813306	1805274	1815974	0.67	cps
Terbium	159-1	34089586	34338418	34197346	34208450	0.36	cps
Terbium	159-2	22564641	22159865	22312165	22345557	0.91	cps
Thallium	203-1	663	783	610	686	12.95	cps
Thallium	205-1	1667	1453	1653	1591	7.51	cps
Tin	118-1	5191	5288	5444	5308	2.41	cps
Titanium	47-1	950	1013	843	936	9.18	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-12 Instrumnet Name : P7
Client Sample ID : E2A08 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:33:59 DataFile Name : 060SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	59573	59767	59811	59717	0.21	cps
Vanadium	51-2	1570	1707	1723	1667	5.05	cps
Yttrium	89-1	37128212	36996541	37194692	37106482	0.27	cps
Yttrium	89-2	9473369	9418008	9475652	9455676	0.35	cps
Zinc	66-2	7055	6988	6942	6995	0.81	cps
Zirconium	90-1	3067	2904	3240	3070	5.48	cps
Zirconium	91-1	650	660	790	700	11.16	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-13 Instrumnet Name : P7
Client Sample ID : E2A10 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:37:08 DataFile Name : 061SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1427	1460	1420	1436	1.49	cps
Antimony	121-1	1657	1727	1763	1716	3.16	cps
Arsenic	75-2	1853	1950	1897	1900	2.55	cps
Barium	135-1	548190	548510	546364	547688	0.21	cps
Barium	137-1	944143	946162	943750	944685	0.14	cps
Beryllium	9-1	100	50	100	83	34.64	cps
Bismuth	209-1	19753043	19828133	19517202	19699460	0.82	cps
Bismuth	209-2	15179399	15371306	15197422	15249375	0.69	cps
Bromine	81-1	31734	34610	36147	34164	6.56	cps
Bromine	81-2	4041	3904	3964	3969	1.73	cps
Cadmium	108-1	30	57	47	44	30.31	cps
Cadmium	106-1	11198	10821	10320	10780	4.08	cps
Cadmium	111-1	7877	7635	7312	7608	3.73	cps
Calcium	43-1	4665852	4696610	4713508	4691990	0.51	cps
Calcium	44-1	75623606	75380232	74374477	75126105	0.88	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	9266	9353	9246	9288	0.61	cps
Cobalt	59-2	2267	2300	2164	2244	3.18	cps
Copper	63-2	17607	17290	17467	17455	0.91	cps
Dysprosium	156-1	300	240	227	256	15.29	cps
Dysprosium	156-2	187	197	177	187	5.36	cps
Erbium	164-1	167	170	177	171	2.98	cps
Erbium	164-2	133	167	93	131	28.01	cps
Gadolinium	160-1	340	427	357	374	12.28	cps
Gadolinium	160-2	1340	1353	1487	1393	5.82	cps
Holmium	165-1	33663141	33669911	33046285	33459779	1.07	cps
Holmium	165-2	22287926	22391095	22559859	22412960	0.61	cps
Indium	115-1	28050746	27788655	27527402	27788934	0.94	cps
Indium	115-2	9576315	9479878	9556082	9537425	0.53	cps
Iron	56-2	216546	215671	214011	215409	0.60	cps
Iron	57-2	88696	91349	91560	90535	1.76	cps
Iron	54-2	14107	13700	14040	13949	1.57	cps
Krypton	83-1	297	297	327	307	5.65	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-13 Instrumnet Name : P7
Client Sample ID : E2A10 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:37:08 DataFile Name : 061SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2800	2937	2817	2851	2.62	cps
Lead	207-1	2357	2367	2220	2315	3.54	cps
Lead	208-1	11019	11142	10568	10910	2.77	cps
Lithium	6-1	3332400	3293148	3199677	3275075	2.08	cps
Magnesium	24-2	26120215	26233673	26224838	26192909	0.24	cps
Manganese	55-2	36959	36868	36541	36789	0.60	cps
Molybdenum	94-1	38661	38704	38918	38761	0.36	cps
Molybdenum	95-1	65630	67300	65573	66168	1.48	cps
Molybdenum	96-1	71165	71316	71527	71336	0.25	cps
Molybdenum	97-1	42027	42211	40810	41683	1.83	cps
Molybdenum	98-1	108452	106605	106435	107164	1.04	cps
Neodymium	150-1	90	93	93	92	2.08	cps
Neodymium	150-2	37	27	37	33	17.32	cps
Nickel	60-2	6525	6792	6665	6660	2.00	cps
Phosphorus	31-2	1143	1120	1127	1130	1.06	cps
Potassium	39-2	4225195	4280897	4248748	4251613	0.66	cps
Rhodium	103-1	25577750	25673405	25815432	25688862	0.47	cps
Rhodium	103-2	14941778	15073401	14954463	14989881	0.48	cps
Scandium	45-1	15051877	15153997	14832754	15012876	1.09	cps
Scandium	45-2	1296994	1312883	1325940	1311939	1.10	cps
Selenium	82-1	479	528	383	463	15.89	cps
Selenium	77-2	10	3	0	4	114.60	cps
Selenium	78-2	450	487	483	473	4.28	cps
Silicon	28-1	51381741	52353506	52237923	51991056	1.02	cps
Silver	107-1	247	233	250	243	3.62	cps
Silver	109-1	93	147	153	131	25.09	cps
Sodium	23-2	21275449	21533337	21440711	21416499	0.61	cps
Strontium	86-1	20251098	20385383	20190893	20275791	0.49	cps
Strontium	88-1	178190651	177521737	175651971	177121453	0.74	cps
Sulfur	34-1	1809095	1790500	1806655	1802084	0.56	cps
Terbium	159-1	34102861	34131162	34357891	34197305	0.41	cps
Terbium	159-2	21921415	22208158	22080306	22069959	0.65	cps
Thallium	203-1	570	710	543	608	14.73	cps
Thallium	205-1	1403	1310	1350	1355	3.46	cps
Tin	118-1	5958	6001	5594	5851	3.82	cps
Titanium	47-1	850	963	867	893	6.85	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : P4878-13 Instrumnet Name : P7
Client Sample ID : E2A10 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:37:08 DataFile Name : 061SMPL.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	60142	59241	60313	59899	0.96	cps
Vanadium	51-2	1870	1893	1797	1853	2.72	cps
Yttrium	89-1	37623955	37077299	37122081	37274445	0.81	cps
Yttrium	89-2	9210516	9260563	9332340	9267806	0.66	cps
Zinc	66-2	8206	7839	8086	8043	2.33	cps
Zirconium	90-1	3210	3154	3377	3247	3.58	cps
Zirconium	91-1	670	623	610	634	4.97	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCV003 Instrumnet Name : P7
Client Sample ID : CCV003 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:43:37 DataFile Name : 063CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	24177259	24936721	24474978	24529653	1.56	cps
Antimony	121-1	10901001	11138410	11048805	11029405	1.09	cps
Arsenic	75-2	608169	608507	610294	608990	0.19	cps
Barium	135-1	13141189	13470241	13609092	13406841	1.79	cps
Barium	137-1	22528007	23160040	23168866	22952305	1.60	cps
Beryllium	9-1	1073307	1111311	1077242	1087287	1.92	cps
Bismuth	209-1	18201426	17602290	17748453	17850723	1.75	cps
Bismuth	209-2	13631527	13647198	13678063	13652263	0.17	cps
Bromine	81-1	15872	16356	16389	16206	1.79	cps
Bromine	81-2	310	300	270	293	7.10	cps
Cadmium	108-1	213573	217791	220466	217277	1.60	cps
Cadmium	106-1	307245	316000	316595	313280	1.67	cps
Cadmium	111-1	2808608	2917553	2944119	2890093	2.48	cps
Calcium	43-1	13441351	13886197	13946618	13758055	2.01	cps
Calcium	44-1	215949863	223705217	222094197	220583092	1.86	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	4627877	4583196	4568696	4593256	0.67	cps
Cobalt	59-2	7462006	7528965	7517973	7502981	0.48	cps
Copper	63-2	53763934	53734168	53838398	53778833	0.10	cps
Dysprosium	156-1	583	610	573	589	3.22	cps
Dysprosium	156-2	1023	1057	940	1007	5.97	cps
Erbium	164-1	643	697	677	672	4.01	cps
Erbium	164-2	480	413	433	442	7.74	cps
Gadolinium	160-1	463	550	530	514	8.82	cps
Gadolinium	160-2	1463	1600	1547	1537	4.48	cps
Holmium	165-1	32366265	31652415	31874060	31964246	1.14	cps
Holmium	165-2	21450316	21424410	21895723	21590149	1.23	cps
Indium	115-1	25668855	25090141	25241752	25333582	1.18	cps
Indium	115-2	8958023	8893173	9007033	8952743	0.64	cps
Iron	56-2	1031750011	1029995238	1039750705	1033831985	0.50	cps
Iron	57-2	25681842	25807260	26210266	25899790	1.07	cps
Iron	54-2	56340146	55983209	57418074	56580476	1.32	cps
Krypton	83-1	290	310	323	308	5.45	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCV003 Instrumnet Name : P7
Client Sample ID : CCV003 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:43:37 DataFile Name : 063CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	38870210	39361389	39127938	39119846	0.63	cps
Lead	207-1	33983434	34630470	34256801	34290235	0.95	cps
Lead	208-1	155197116	157232411	157609136	156679554	0.83	cps
Lithium	6-1	3086974	3053912	3054605	3065164	0.62	cps
Magnesium	24-2	211743950	214865323	211319830	212643035	0.91	cps
Manganese	55-2	35001485	35201042	35307136	35169888	0.44	cps
Molybdenum	94-1	38139487	39179671	39685142	39001433	2.02	cps
Molybdenum	95-1	55539906	57033281	57504562	56692583	1.81	cps
Molybdenum	96-1	60657564	62301854	62886391	61948603	1.87	cps
Molybdenum	97-1	34343077	34988478	35934552	35088702	2.28	cps
Molybdenum	98-1	87965379	90459319	92015242	90146646	2.27	cps
Neodymium	150-1	970	897	890	919	4.83	cps
Neodymium	150-2	300	303	257	287	9.08	cps
Nickel	60-2	1927972	1920408	1902115	1916832	0.69	cps
Phosphorus	31-2	239587	241354	241964	240968	0.51	cps
Potassium	39-2	121839025	122593838	123571678	122668180	0.71	cps
Rhodium	103-1	23351851	22819904	23066341	23079365	1.15	cps
Rhodium	103-2	13867340	13816652	14015964	13899985	0.75	cps
Scandium	45-1	14178664	14063399	14106338	14116134	0.41	cps
Scandium	45-2	1276494	1283044	1285814	1281784	0.37	cps
Selenium	82-1	168300	173948	173401	171883	1.81	cps
Selenium	77-2	17601	18392	18205	18066	2.29	cps
Selenium	78-2	60630	60436	60145	60404	0.40	cps
Silicon	28-1	34997369	35189480	35802246	35329698	1.19	cps
Silver	107-1	14177024	14280978	14475749	14311250	1.06	cps
Silver	109-1	13382699	13606676	13740194	13576523	1.33	cps
Sodium	23-2	331117875	329301442	331090555	330503291	0.31	cps
Strontium	86-1	3432467	3495541	3486348	3471452	0.98	cps
Strontium	88-1	29558775	30537260	30590990	30229008	1.92	cps
Sulfur	34-1	1028325	1037514	1040822	1035553	0.63	cps
Terbium	159-1	32818983	32432082	32289415	32513493	0.84	cps
Terbium	159-2	21467875	21595577	21172382	21411945	1.01	cps
Thallium	203-1	9774816	9891633	9797076	9821175	0.63	cps
Thallium	205-1	23462538	23648765	23705679	23605660	0.54	cps
Tin	118-1	8924210	9163963	9131223	9073132	1.43	cps
Titanium	47-1	12837568	13414106	13416047	13222574	2.52	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCV003

Instrumnet Name :

P7

Client Sample ID :

CCV003

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:43:37

DataFile Name :

063CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	30246811	30954371	30945900	30715694	1.32	cps
Vanadium	51-2	4097344	4113095	4094150	4101529	0.25	cps
Yttrium	89-1	34789639	34712906	34603261	34701936	0.27	cps
Yttrium	89-2	9039573	9071068	9211152	9107264	1.00	cps
Zinc	66-2	8713069	8779425	8759933	8750809	0.39	cps
Zirconium	90-1	18545548	19327000	19396781	19089776	2.48	cps
Zirconium	91-1	4104067	4269727	4290828	4221541	2.42	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB003 Instrumnet Name : P7
Client Sample ID : CCB003 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:46:18 DataFile Name : 064CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1383	1080	1083	1182	14.73	cps
Antimony	121-1	5571	5961	6612	6048	8.69	cps
Arsenic	75-2	20	43	43	36	37.89	cps
Barium	135-1	3497	2330	1497	2441	41.16	cps
Barium	137-1	6285	4217	2617	4373	42.05	cps
Beryllium	9-1	306	278	206	263	19.63	cps
Bismuth	209-1	18774297	18861166	19019837	18885100	0.66	cps
Bismuth	209-2	15346914	15272844	15265061	15294940	0.30	cps
Bromine	81-1	16096	16119	16302	16172	0.70	cps
Bromine	81-2	180	233	183	199	15.02	cps
Cadmium	108-1	93	60	57	70	28.96	cps
Cadmium	106-1	9813	9567	9567	9649	1.48	cps
Cadmium	111-1	7557	7208	6977	7247	4.03	cps
Calcium	43-1	9446	8609	7792	8616	9.60	cps
Calcium	44-1	171929	152495	139101	154508	10.68	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6645	6632	6468	6581	1.50	cps
Cobalt	59-2	370	357	353	360	2.45	cps
Copper	63-2	4587	4167	3674	4143	11.04	cps
Dysprosium	156-1	17	37	27	27	37.50	cps
Dysprosium	156-2	13	17	17	16	12.40	cps
Erbium	164-1	157	127	130	138	11.93	cps
Erbium	164-2	77	103	87	89	15.15	cps
Gadolinium	160-1	107	153	143	134	18.28	cps
Gadolinium	160-2	1247	1293	1297	1279	2.19	cps
Holmium	165-1	31346111	31348149	31485022	31393094	0.25	cps
Holmium	165-2	22278413	22172614	22111651	22187559	0.38	cps
Indium	115-1	26159026	26529617	26899911	26529518	1.40	cps
Indium	115-2	9563933	9591044	9507587	9554188	0.45	cps
Iron	56-2	74550	67762	60933	67748	10.05	cps
Iron	57-2	2737	2630	2464	2610	5.28	cps
Iron	54-2	6832	6878	6331	6680	4.54	cps
Krypton	83-1	210	297	337	281	23.03	cps

LB Number : LB133596 Operator : Jaswal
Lab Sample ID : CCB003 Instrumnet Name : P7
Client Sample ID : CCB003 Dilution Factor : 1
Date & Time Acquired : 2024-11-22 16:46:18 DataFile Name : 064CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	11902	8476	5771	8716	35.25	cps
Lead	207-1	10421	7205	5028	7551	35.93	cps
Lead	208-1	47530	33991	23388	34970	34.60	cps
Lithium	6-1	2978849	3076877	3094322	3050016	2.04	cps
Magnesium	24-2	9390	8026	7345	8253	12.61	cps
Manganese	55-2	14564	14497	14480	14514	0.30	cps
Molybdenum	94-1	11892	8833	6842	9189	27.68	cps
Molybdenum	95-1	13880	10154	7042	10359	33.05	cps
Molybdenum	96-1	16496	11728	7485	11903	37.87	cps
Molybdenum	97-1	8889	6291	4174	6452	36.61	cps
Molybdenum	98-1	23152	16303	10694	16716	37.32	cps
Neodymium	150-1	13	10	30	18	60.28	cps
Neodymium	150-2	7	13	23	14	58.06	cps
Nickel	60-2	870	757	747	791	8.66	cps
Phosphorus	31-2	383	417	397	399	4.21	cps
Potassium	39-2	82469	81500	80994	81654	0.92	cps
Rhodium	103-1	24917339	25354121	25519869	25263776	1.23	cps
Rhodium	103-2	15249763	15290924	15358647	15299778	0.36	cps
Scandium	45-1	14027720	14344492	14199139	14190450	1.12	cps
Scandium	45-2	1318319	1340798	1310763	1323293	1.18	cps
Selenium	82-1	597	400	339	445	30.38	cps
Selenium	77-2	0	3	3	2	86.60	cps
Selenium	78-2	497	470	537	501	6.70	cps
Silicon	28-1	862980	849277	842228	851495	1.24	cps
Silver	107-1	4024	2347	1360	2577	52.26	cps
Silver	109-1	3851	2247	1313	2470	51.95	cps
Sodium	23-2	79775	77222	76797	77931	2.07	cps
Strontium	86-1	1847	1360	1253	1487	21.28	cps
Strontium	88-1	11048	8686	6772	8835	24.24	cps
Sulfur	34-1	286480	285647	286761	286296	0.20	cps
Terbium	159-1	32200622	32125552	32199738	32175304	0.13	cps
Terbium	159-2	21979680	21778897	21848222	21868933	0.47	cps
Thallium	203-1	2877	1837	1120	1945	45.43	cps
Thallium	205-1	6738	4341	2834	4638	42.46	cps
Tin	118-1	10491	10134	9433	10019	5.37	cps
Titanium	47-1	3470	2690	1553	2571	37.49	cps

LB Number :

LB133596

Operator :

Jaswal

Lab Sample ID :

CCB003

Instrumnet Name :

P7

Client Sample ID :

CCB003

Dilution Factor :

1

Date & Time Acquired :

2024-11-22 16:46:18

DataFile Name :

064CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	6992	4778	2970	4913	41.00	cps
Vanadium	51-2	150	127	117	131	13.04	cps
Yttrium	89-1	34692954	35489551	35458675	35213727	1.28	cps
Yttrium	89-2	9365108	9397907	9336563	9366526	0.33	cps
Zinc	66-2	14367	14327	14300	14331	0.23	cps
Zirconium	90-1	9740	8876	8469	9028	7.19	cps
Zirconium	91-1	2180	1997	1780	1986	10.08	cps

Prep Standard - Chemical Standard Summary

Order ID : P4878

Test : Metals CLP MS

Prepbatch ID : PB165158,

Sequence ID/Qc Batch ID: LB133596,

Standard ID :

MP83014,MP83016,MP83032,MP83033,MP83034,MP83035,MP83036,MP83037,MP83038,MP83039,MP83041,MP83042,MP83043,MP83044,MP83045,MP83047,MP83048,MP83049,MP83050,MP83105,MP83122,

Chemical ID :

M5192,M5288,M5289,M5294,M5304,M5390,M5476,M5497,M5498,M5513,M5515,M5519,M5658,M5698,M5739,M5751,M5769,M5798,M5799,M5800,M5801,M5802,M5806,M5815,M5816,M5817,M5818,M5819,M5820,M5873,M5874,M5961,M5962,M5976,M5978,M5981,M5982,M5983,M5993,M5999,M6021,M6023,M6025,M6028,M6030,M6033,M6055,M6095,M6111,M6115,M6116,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>
1122	ICPMS CALIB BLANK(S0/ICB/CCB)	MP83014	11/02/2024	11/25/2024	Sarabjit Jaswal	None	None	Mohan Bera 11/04/2024

FROM 25.00000ml of M6095 + 4925.00000ml of W3112 + 50.00000ml of M6115 = Final Quantity: 5000.000 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>
2902	S8 ICPMS	MP83016	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIP ETTE_3 (A)	Mohan Bera 11/04/2024

FROM 1.00000ml of M6033 + 2.50000ml of M5288 + 2.50000ml of M5515 + 5.00000ml of M5498 + 5.00000ml of M5769 + 5.00000ml of M5806 + 79.00000ml of MP83014 = 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>
3947	S7(SFAM,6020,200.8)	MP83032	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.40000ml of M5513 + 1.00000ml of M5799 + 1.00000ml of M5818 + 1.00000ml of M5981 + 1.00000ml of M5983 + 1.90000ml of M6033 + 10.00000ml of M6115 + 2.00000ml of M5815 + 2.00000ml of M5817 + 2.50000ml of M5476 + 4.00000ml of M5390 + 4.90000ml of M5515 + 4.90000ml of M5519 + 5.00000ml of M6095 + 50.00000ml of M5304 + 832.80000ml of W3112 + 9.00000ml of M5698 + 9.00000ml of M5819 + 9.00000ml of M5976 + 9.00000ml of M5978 + 9.90000ml of M5498 + 9.90000ml of M5751 + 9.90000ml of M5769 + 9.90000ml of M5806 = Final Quantity: 1000.000 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>
3948	S6(SFAM,6020,200.8)	MP83033	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.50000ml of M6095 + 1.00000ml of M6115 + 48.50000ml of W3112 + 50.00000ml of MP83032 = 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>
3954	S4(SFAM,6020,200.8)	MP83034	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.50000ml of M6095 + 1.00000ml of M6115 + 86.00000ml of W3112 + 12.50000ml of MP83032 = 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>
3949	S5(SFAM,6020,200.8)	MP83035	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.50000ml of M6095 + 1.00000ml of M6115 + 73.50000ml of W3112 + 25.00000ml of MP83032 = 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>
3951	S3(SFAM, 6020,200.8)	MP83036	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.50000ml of M6095 + 1.00000ml of M6115 + 88.50000ml of W3112 + 10.00000ml of MP83033 = 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>
3955	S2CONC(SFAM,6020,200.8)	MP83037	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.05000ml of M5698 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M5982 + 0.05000ml of M5983 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.10000ml of M5658 + 0.10000ml of M5751 + 0.10000ml of M5802 + 0.10000ml of M6033 + 0.25000ml of M5515 + 0.25000ml of M5799 + 0.25000ml of M5819 + 0.25000ml of M5962 + 0.25000ml of M5976 + 0.25000ml of M5978 + 0.25000ml of M6021 + 0.50000ml of M5390 + 0.50000ml of M5818 + 1.25000ml of M5815 + 1.25000ml of M5817 + 2.50000ml of M5498 + 2.50000ml of M5519 + 2.50000ml of M5769 + 2.50000ml of M5806 + 2.50000ml of M6095 + 226.25000ml of W3112 + 5.00000ml of M6115 = Final Quantity: 250.000 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>
3956	S2(SFAM,6020,200.8)	MP83038	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.50000ml of M6095 + 1.00000ml of M6115 + 98.00000ml of W3112 + 0.50000ml of MP83037 = 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>
3957	S1(SFAM,6020,200.8)	MP83039	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.50000ml of M6095 + 1.00000ml of M6115 + 88.50000ml of W3112 + 10.00000ml of MP83038 = 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>
3958	ICV(SFAM)	MP83041	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 2.00000ml of M5294 + 98.00000ml of MP83014 = 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>
3961	CCV	MP83042	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.20000ml of M5513 + 0.50000ml of M5799 + 0.50000ml of M5818 + 0.50000ml of M5981 + 0.50000ml of M5983 + 1.00000ml of M5815 + 1.00000ml of M5817 + 1.25000ml of M5476 + 10.00000ml of M6115 + 12.45000ml of M5515 + 12.45000ml of M5519 + 2.00000ml of M5390 + 24.95000ml of M5498 + 24.95000ml of M5769 + 24.95000ml of M5806 + 25.00000ml of M5304 + 4.50000ml of M5698 + 4.50000ml of M5751 + 4.50000ml of M5819 + 4.95000ml of M6033 + 5.00000ml of M5976 + 5.00000ml of M5978 + 5.00000ml of M6095 + 823.45000ml of W3112 = Final Quantity: 1000.000 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>
1142	ICSA ICPMS	MP83043	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 10.00000ml of M5873 + 90.00000ml of MP83014 = 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>
1143	ICSAB ICPMS	MP83044	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 10.00000ml of M5873 + 10.00000ml of M5874 + 80.00000ml of MP83014 = 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>
3963	CONC.LCSW SPIKE	MP83045	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.05000ml of M5698 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M5982 + 0.05000ml of M5983 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.10000ml of M5289 + 0.10000ml of M5658 + 0.10000ml of M5751 + 0.10000ml of M5802 + 0.25000ml of M5192 + 0.25000ml of M5799 + 0.25000ml of M5819 + 0.25000ml of M5962 + 0.25000ml of M5978 + 0.25000ml of M6021 + 0.50000ml of M5390 + 0.50000ml of M5818 + 1.00000ml of M5515 + 1.00000ml of M5816 + 1.25000ml of M5820 + 2.50000ml of M5497 + 2.50000ml of M5519 + 2.50000ml of M5769 + 2.50000ml of M5806 + 2.50000ml of M6095 + 225.75000ml of W3112 + 5.00000ml of M6115 = 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>
870	ICPMS SPIKE SOL.B	MP83047	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.45000ml of M5962 + 5.00000ml of M5993 + 5.00000ml of M5999 + 39.55000ml of MP83014 = Final Quantity: 50.000 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>
3962	MG 10PPM FOR TUNE	MP83048	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 0.01000ml of M5769 + 9.99000ml of MP83014 = 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>
3894	TUNE 200PPB	MP83049	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 2.00000ml of M6055 + 2.00000ml of MP83048 + 98.00000ml of MP83014 = 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>
3903	ISS 3PPM	MP83050	11/02/2024	11/25/2024	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 11/04/2024

FROM 5.00000ml of M6115 + 75.00000ml of M5739 + 170.00000ml of MP83014 = 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>
170	1:1HCL	MP83105	11/07/2024	12/06/2024	Janvi Patel	None	None	Sarabjit Jaswal 11/07/2024

FROM 1000.00000ml of M6111 + 1000.00000ml 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>
169	1:1HNO3	MP83122	11/07/2024	12/06/2024	Janvi Patel	None	None	Sarabjit Jaswal 11/07/2024
<u>FROM</u> 1000.00000ml of M6116 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml								

CHEMICAL RECEIPT LOG BOOK

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

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 #
Absolute Standards, Inc.	58113 / Aluminum (Al) 10,000PPM	070622	07/06/2025	09/02/2022 / jaswal	07/12/2022 / jaswal	M5289

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV-1014	01/01/2025	12/13/2023 / bin	02/20/2020 / bin	M5294

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020CAL-1 / Calibration Standard Method 6020	S2-MEB711244	10/20/2026	08/07/2024 / jaswal	04/01/2022 / jaswal	M5304

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 #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/09/2025	07/29/2024 / jaswal	03/16/2023 / jaswal	M5476

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	03/18/2023 / bin	03/17/2023 / bin	M5497

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5498

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	061522	06/15/2025	03/19/2023 / bin	03/17/2023 / bin	M5513

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	01/08/2024 / bin	03/17/2023 / bin	M5519

CHEMICAL RECEIPT LOG BOOK

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.	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 #
Inorganic Ventures	6020ISS / 6020ISS, 10 ug/ml, Bi, Ho, In, 6Li, Rh, Sc, TB, Y	T2-MEB709511	09/03/2026	08/07/2024 / jaswal	04/11/2022 / jaswal	M5739

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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

CHEMICAL RECEIPT LOG BOOK

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

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

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

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

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57014 / Si, 1000 PPM, 125 ml	122023	12/20/2026	03/06/2024 / jaswal	02/09/2024 / jaswal	M5818

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICPMS) STOCK SOLN	CP-MS ICSA-0803	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5873

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSB (ICPMS) STOCK SOLUTION	CP-MS ICSB-0803	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5874

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/02/2024 / Jaswal	06/11/2024 / Jaswal	M5961

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL	T2-MO720876	07/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5976

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	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.	57092 / U, 1000 PPM, 125 ml	060724	06/07/2027	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5981

CHEMICAL RECEIPT LOG BOOK

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 #
Absolute Standards, Inc.	57040 / Zr, 1000 PPM, 125 ml	071423	07/14/2026	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5983

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-SPK-4 / SOIL/WATER SPIKE SOLN 4, 125mL	V2-MEB742036	03/12/2029	10/04/2024 / Jaswal	02/22/2024 / Jaswal	M5993

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-SPK-1 / SOIL/WATER SPIKE SOLN 1, 125mL	T2-MEB721963	07/27/2027	09/04/2024 / Jaswal	02/22/2024 / kareem	M5999

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	06/12/2027	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	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

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 #
Inorganic Ventures	IV-STOCK-12 / ICP-MS TUNING SOLUTION, 125mL	U2-MEB734294	06/21/2028	08/21/2024 / Jaswal	08/19/2024 / Jaswal	M6055

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)		03/17/2029	10/26/2024 / Janvi	10/21/2024 / Janvi	M6095

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)	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	05/04/2025	11/02/2024 / Janvi	09/29/2024 / Eman	M6115

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	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112



Refine your results. Redefine your industry.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

Certificate of Analysis

R: 02/22/24 M5991 M5992 M5993 M5994 M5995

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: CLPP-SPK-4
Lot Number: V2-MEB742036
Matrix: 3% (v/v) HNO₃
Value / Analyte(s):
100 µg/mL ea:
Antimony,
50 µg/mL ea:
Cadmium, Thallium,
40 µg/mL ea:
Arsenic,
20 µg/mL ea:
Lead,
10 µg/mL ea:
Selenium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.7 µg/mL	Arsenic, As	40.00 ± 0.26 µg/mL
Cadmium, Cd	50.00 ± 0.22 µg/mL	Lead, Pb	20.00 ± 0.09 µg/mL
Selenium, Se	10.00 ± 0.04 µg/mL	Thallium, Tl	50.00 ± 0.22 µg/mL

Density: 1.016 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2

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

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, 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

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; Info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 12, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57048
070124
Cadmium (Cd)

Lot #
Solvent: 24002546 Nitric Acid

2% 40.0 Nitric Acid (mL)

Expiration Date: 070127

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 2000.07 5E-05 Balance Uncertainty 0.100 Flask Uncertainty

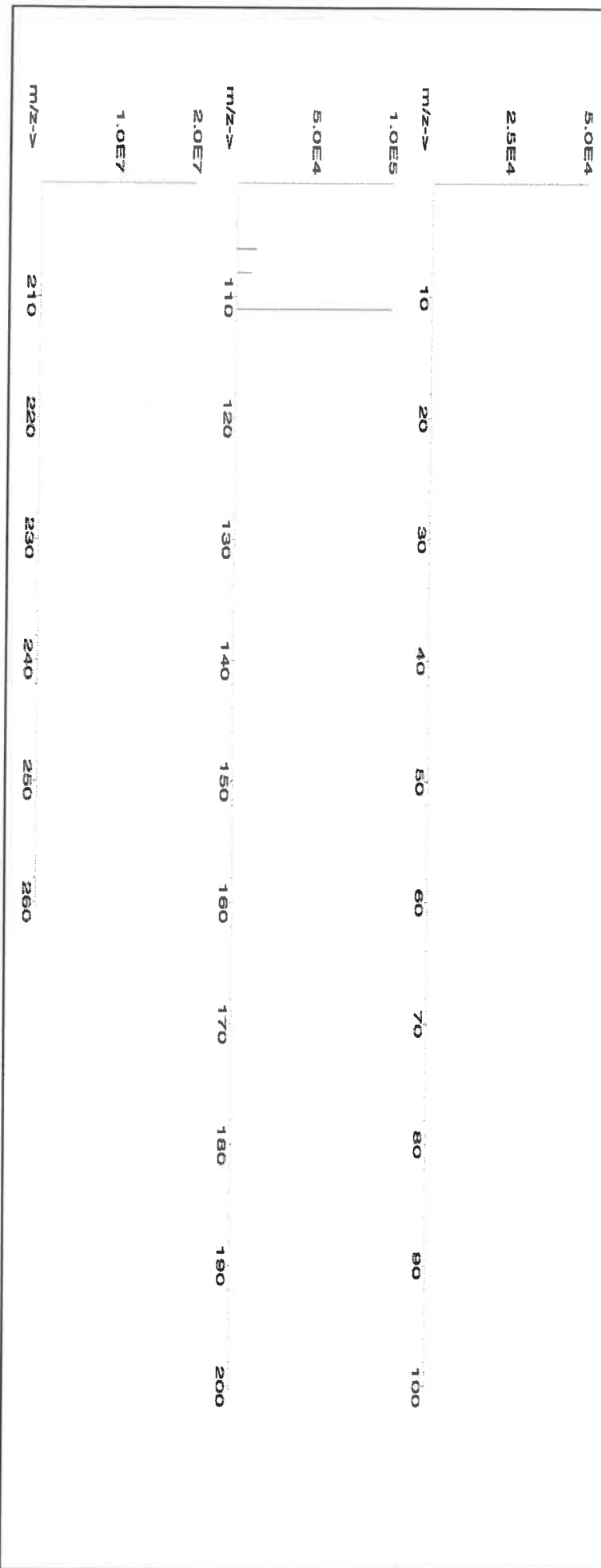
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	070124
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas
	070124

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

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

[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).



Certified Reference Material CRM



CERTIFIED WEIGHT REPORT:

Part Number: 57182 Lot #
Lot Number: 110923 Solvent: 24002546 Nitric Acid
Description: Lead (Pb)

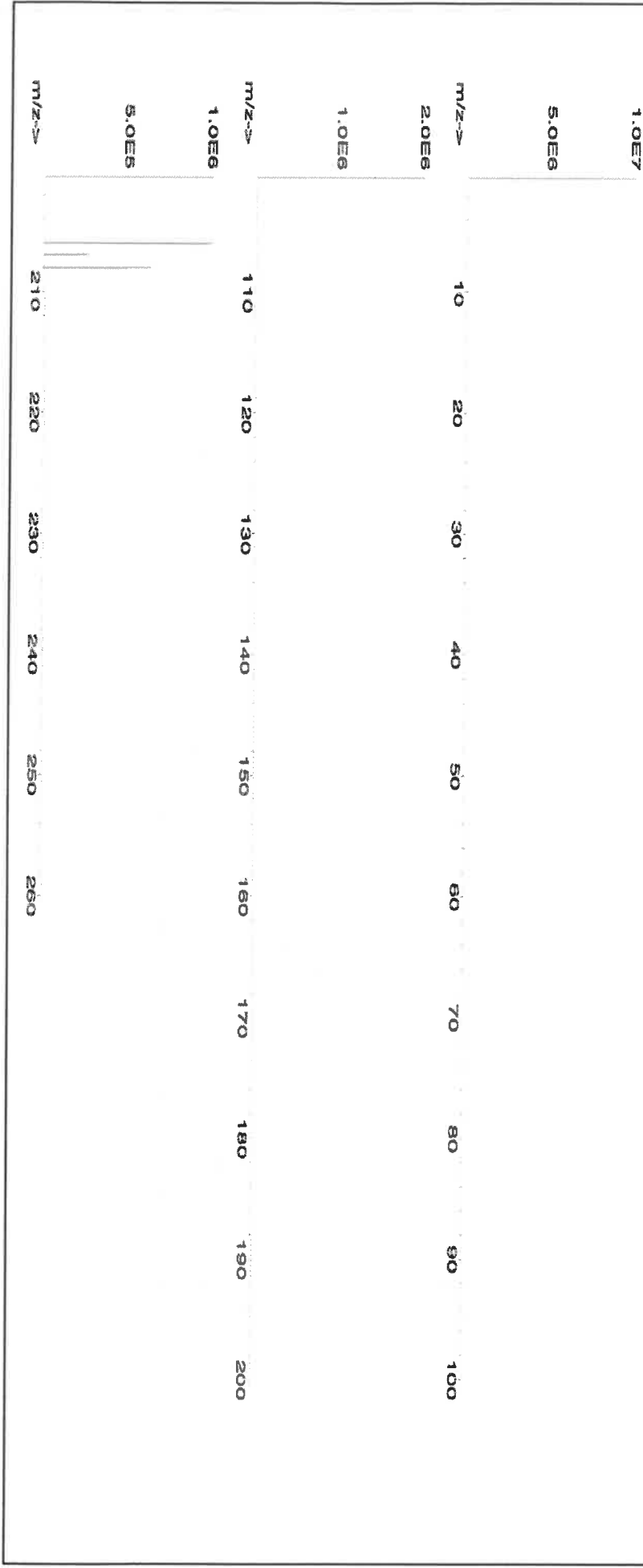
Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas
110923	

Compound	SDS Information									
	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)

1. Lead(II) nitrate (Pb) IN029 PED12016A1 10000 99.999 0.10 62.5 32.0006 32.0040 10001.1 20.0 10099-74-8 0.05 mg/m3 Inverse rat 83 mg/kg 3128

[1] Spectrum No.1 [17.284 sec]:58182.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	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	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

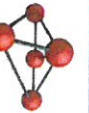
Physical Characterization:

(T)= Target analyte

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:

57042
051722
Molybdenum (Mo)

Lot # **Solvent:**
MKB08597V Ammonium hydroxide

0.5% **15.0** **Ammonium hydroxide**
(mL)

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

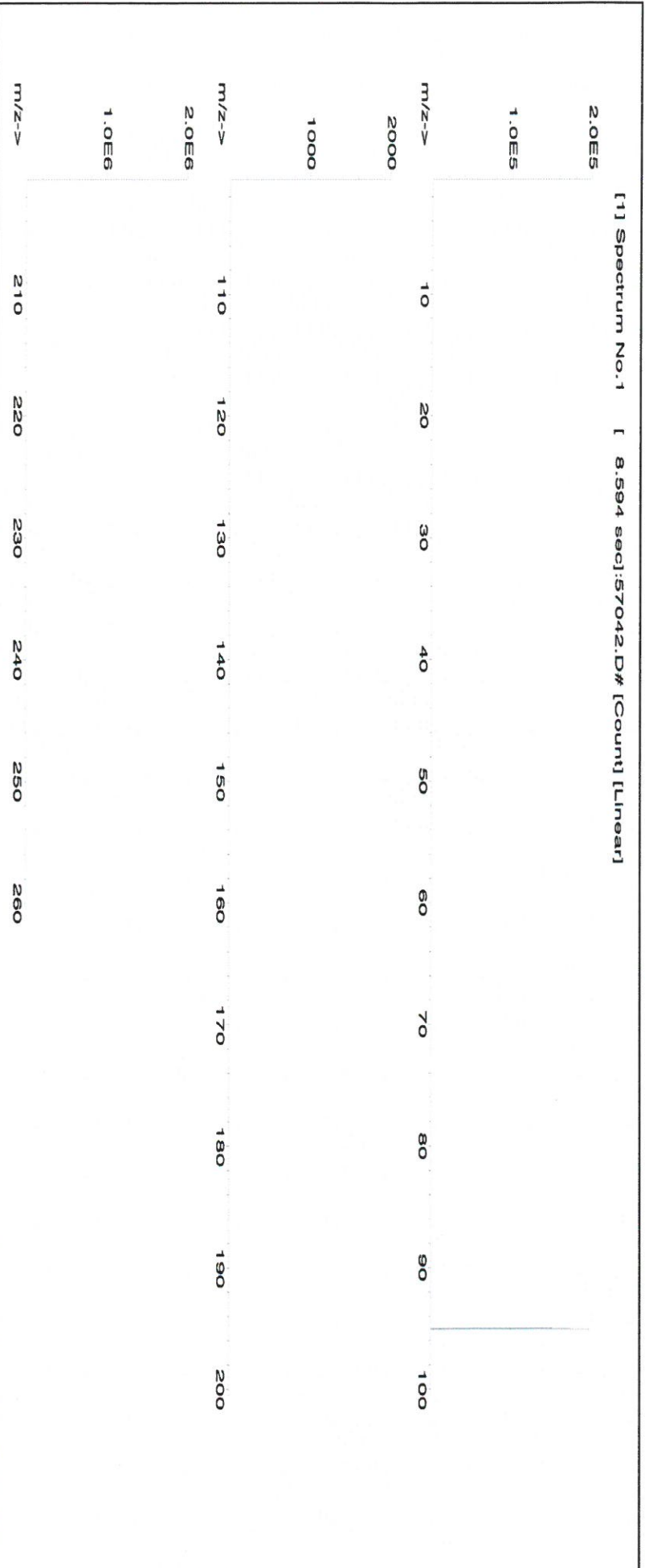
5E-05 **Balance Uncertainty**
0.058 **Flask Uncertainty**

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)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM

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).



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
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

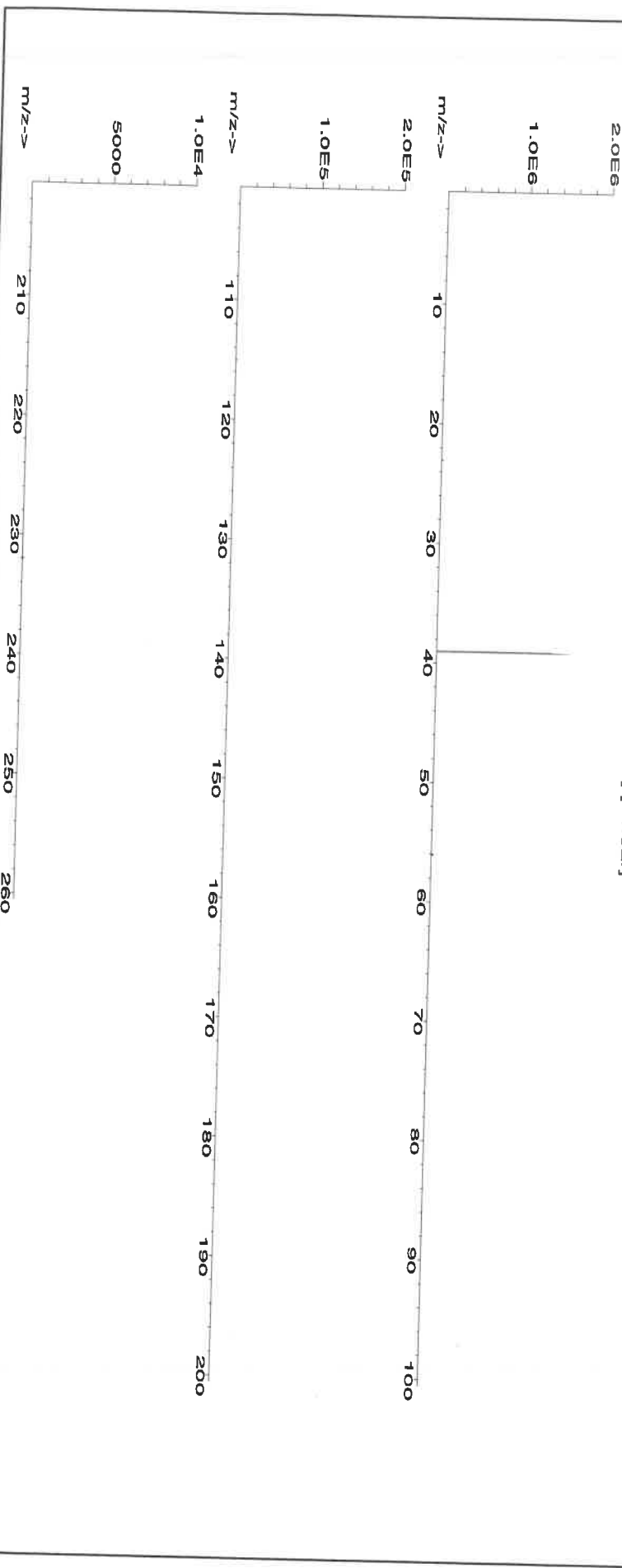
1. Potassium nitrate (K)

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.
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M5289 R: 07/12/22
Certified Reference Material CRM

34



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58113
Lot Number: 070622
Description: Aluminum (Al)

Lot #
Solvent: 20370011 Nitric Acid

Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

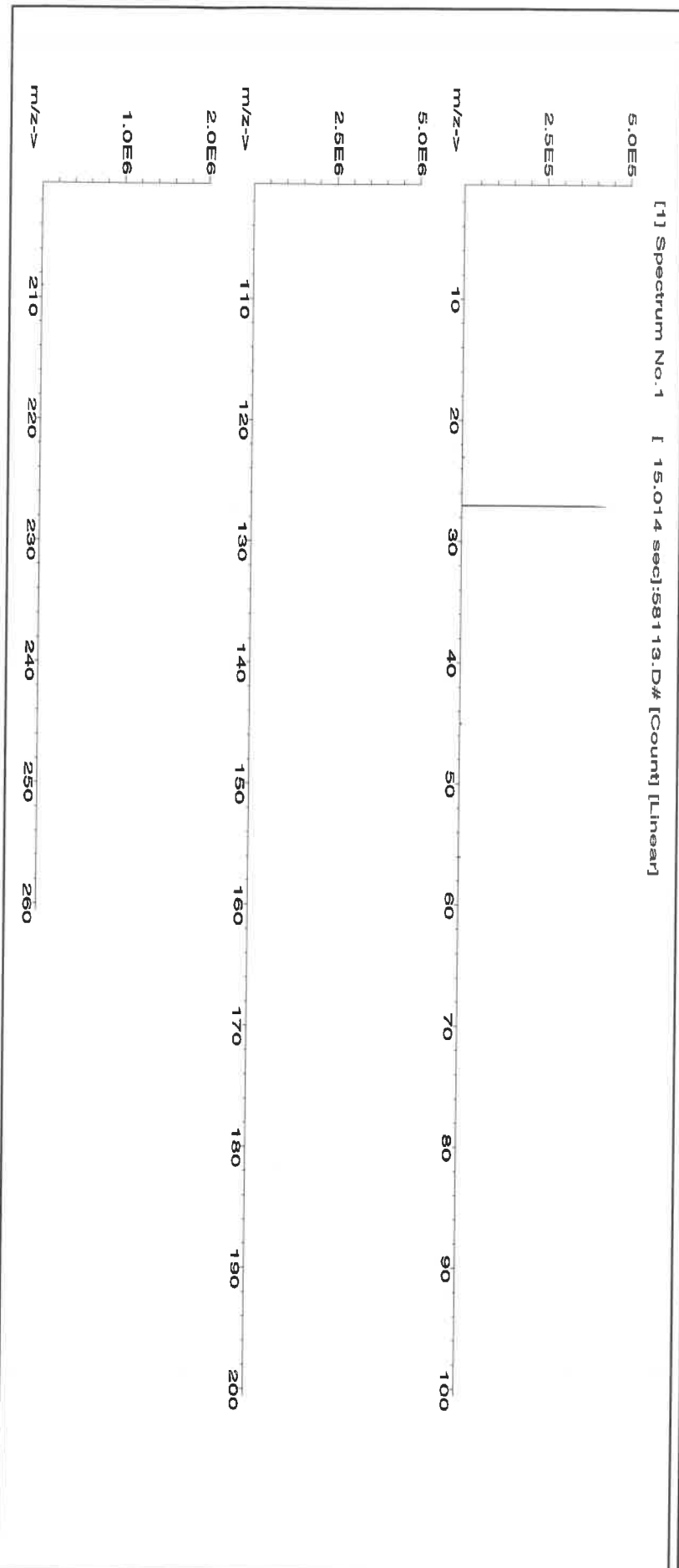
2% 40.0 Nitric Acid
(mL)

Weight shown below was diluted to (mL): 2000.02 0.058 Balance Uncertainty
Flask Uncertainty

Formulated By:	Lawrence Barry
070622	
Reviewed By:	Pedro L. Renteria
070622	

Compound	SDS Information												
	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Expanded	(Solvent Safety Info. On Attached pg.)			NIST	
	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µm/mL)	+/- (µm/mL)	CAS#	OSHA PEL (TWA)	LD50	
RM#													

1. Aluminum nitrate nonahydrate (Al) IN022 ALD012021A1 10000 99.999 0.10 7.10 281.6956 281.6977 10000.1 20.0 7784-27-2 2 mg/m3 or-tal 3671 mg/kg 3101a





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

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

Al	T	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	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	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	Sr	<0.02	S	<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	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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- * Standards are 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



Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

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



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: 6020CAL-1
Lot Number: S2-MEB711244
Matrix: 5% (v/v) HNO₃
tr. HF
Value / Analyte(s): 20 µg/mL ea:
Silver, Aluminum,
Arsenic, Barium,
Beryllium, Calcium,
Cadmium, Cobalt,
Chromium, Copper,
Iron, Potassium,
Magnesium, Manganese,
Sodium, Nickel,
Lead, Antimony,
Selenium, Thallium,
Vanadium, Zinc

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	20.01 ± 0.08 µg/mL	Antimony, Sb	20.01 ± 0.12 µg/mL
Arsenic, As	20.01 ± 0.18 µg/mL	Barium, Ba	20.01 ± 0.11 µg/mL
Beryllium, Be	20.01 ± 0.14 µg/mL	Cadmium, Cd	20.01 ± 0.11 µg/mL
Calcium, Ca	20.01 ± 0.10 µg/mL	Chromium, Cr	20.01 ± 0.16 µg/mL
Cobalt, Co	20.01 ± 0.11 µg/mL	Copper, Cu	20.01 ± 0.10 µg/mL
Iron, Fe	20.01 ± 0.09 µg/mL	Lead, Pb	20.01 ± 0.11 µg/mL
Magnesium, Mg	19.99 ± 0.10 µg/mL	Manganese, Mn	20.01 ± 0.10 µg/mL
Nickel, Ni	20.01 ± 0.11 µg/mL	Potassium, K	20.01 ± 0.10 µg/mL
Selenium, Se	20.02 ± 0.14 µg/mL	Silver, Ag	20.02 ± 0.09 µg/mL
Sodium, Na	20.01 ± 0.10 µg/mL	Thallium, Tl	20.01 ± 0.13 µg/mL
Vanadium, V	20.01 ± 0.11 µg/mL	Zinc, Zn	20.01 ± 0.11 µg/mL

Density: 1.026 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
As	ICP Assay	3103a	100818
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
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
Fe	Calculated		See Sec. 4.2
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
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
V	ICP 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

HF Note: This standard should not be prepared or stored in glass.

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

October 20, 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

- **October 20, 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





R-09/18/22 **(B1)**

Certified Reference Material CRM

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
Balance Uncertainty: 5E-05
Flask Uncertainty: 0.058

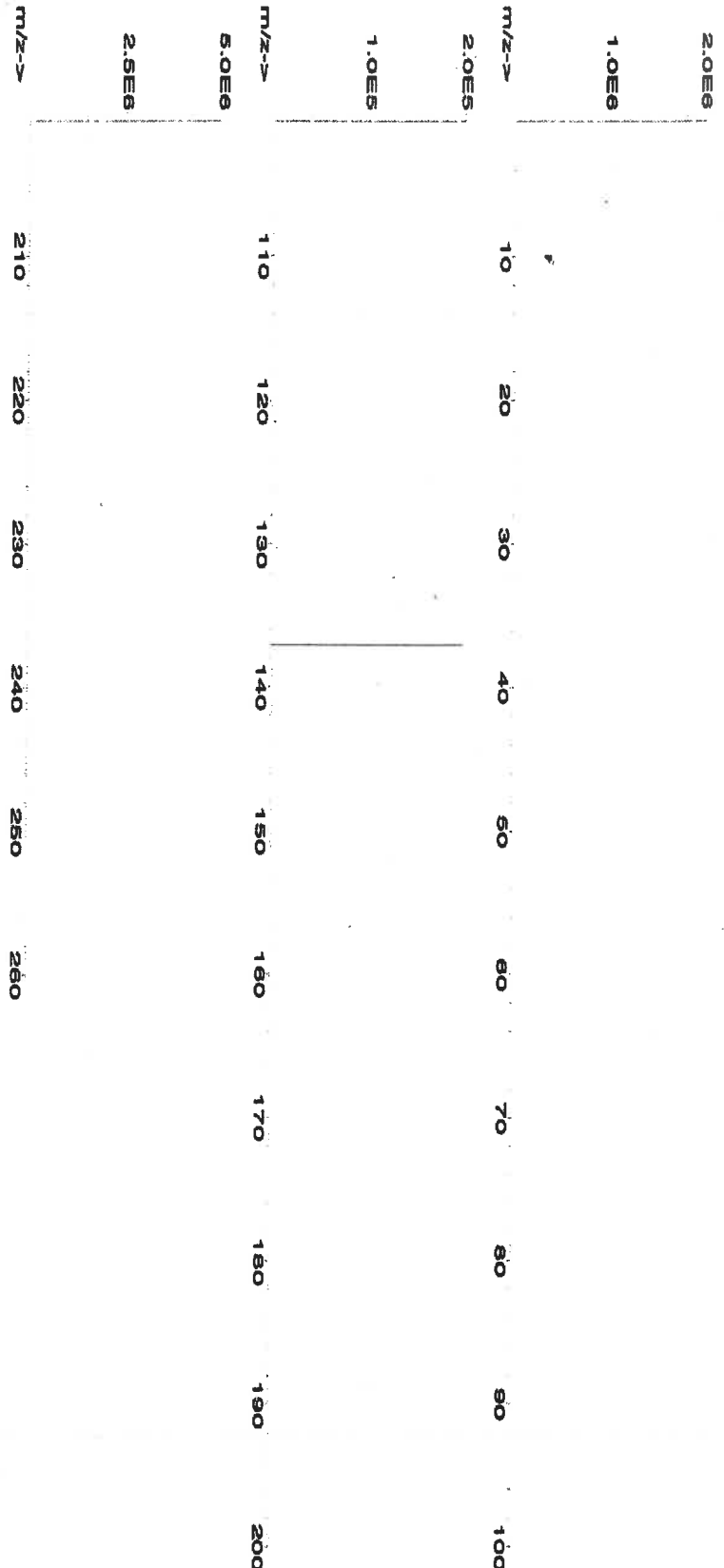
2% 40.0 (mL) Nitric Acid

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	<i>Pedro L. Rentes</i>
	072122

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)
1. Barium nitrate (Ba)	IN023 BA022019A1	1000	99.899	0.10	52.3	3.82417	3.82426	1000.0	2.0

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-al 355 mg/kg 31046

[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	<0.2	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	<0.2	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:

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).



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	T	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	<0.02	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	<0.02	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:

Ben. P. Davis

- * 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).



15497-15498 R203/17/23(2)

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

58120
031523
Calcium (Ca)

Solvent: 21110221 Nitric Acid

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

031526
Ambient (20 °C)
10000
6UTB
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

2% 60.0 Nitric Acid (mL)

Weight shown below was diluted to (mL): 3000.41

Giovanni Esposito

Formulated By: Giovanni Esposito 031523

Pedro L. Rentas

Reviewed By: Pedro L. Rentas 031523

SDS Information

(Solvent Safety Info. On Attached pg.)
NIST SRM
LD50
OSHA PEL (TWA)
CAS#

Expanded Uncertainty

Actual Conc. (µg/mL)

Actual Weight (g)

Target Weight (g)

Assay Purity (%)

Purity (%)

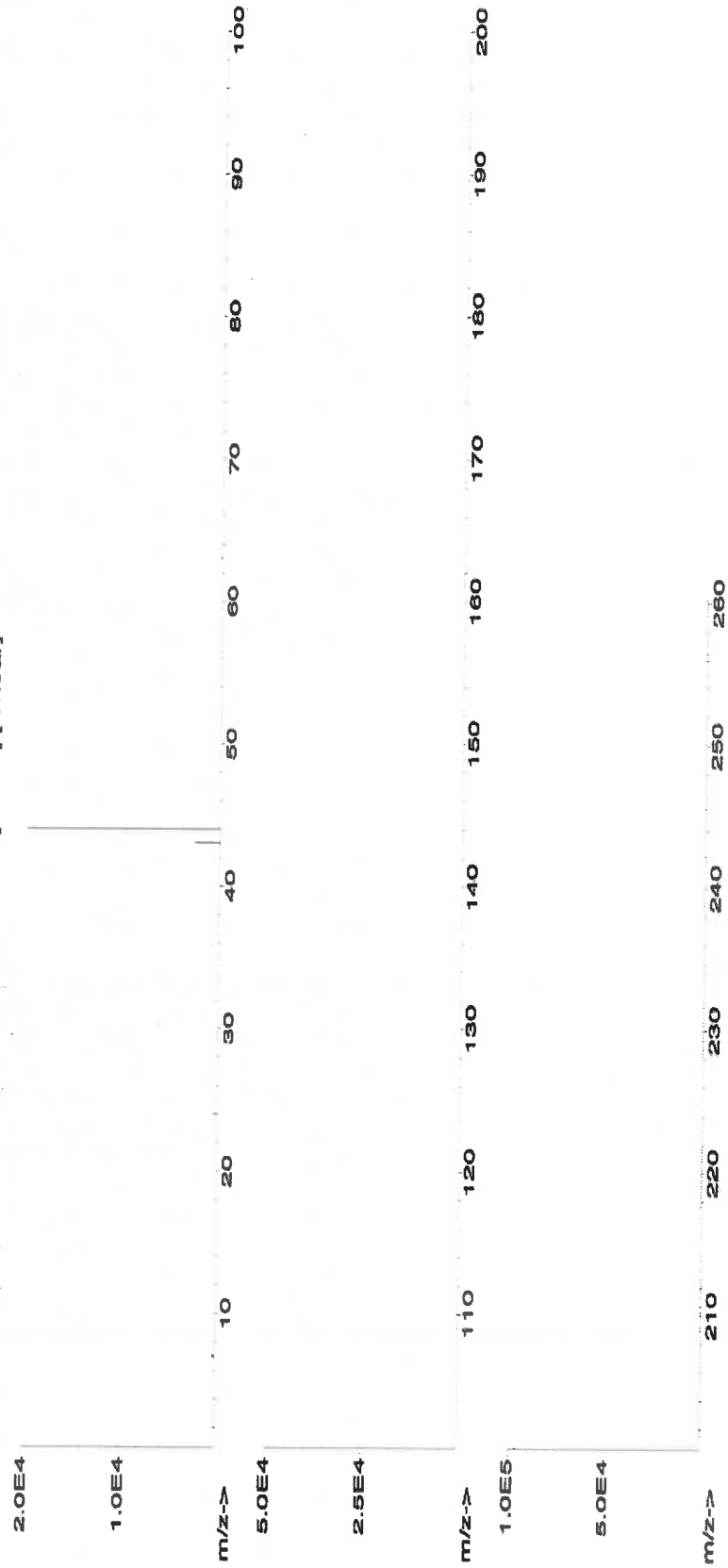
Nominal Conc. (µg/mL)

Lot Number

RM#

1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	10001.4	20.0	471-34-1	5 mg/m3	or:rat >2000mg/kg	3109a

[1] Spectrum No.1 [12.514 sec]:58120.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	<0.02	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<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	<0.2	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	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	Tl	<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:

- * 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:

57182
061522
Lead (Pb)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

061525
Ambient (20 °C)
10000
6UTB

Weight shown below was diluted to (mL):

2000.02

5E-05 Balance Uncertainty

0.058 Flask Uncertainty

Lot #

Solvent: 20510011 Nitric Acid

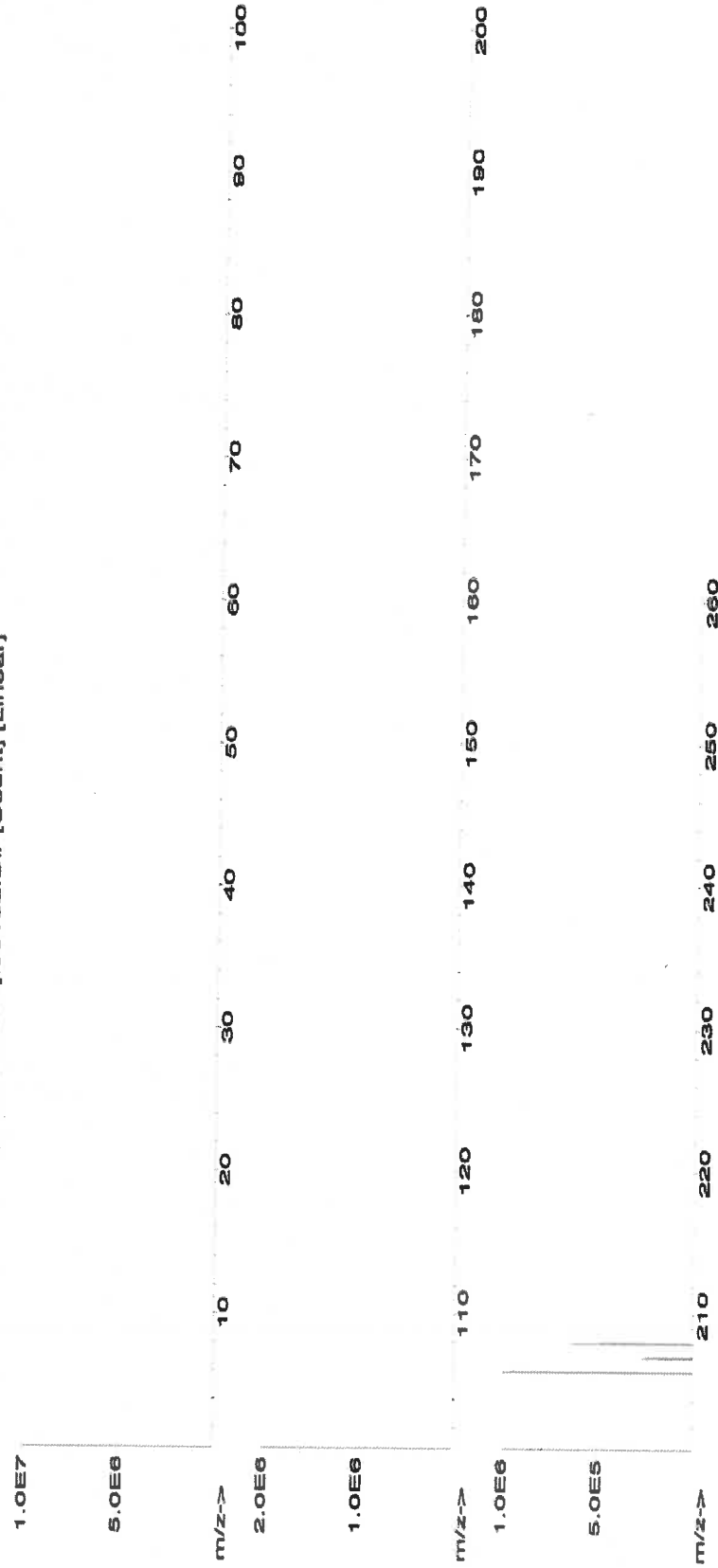
2% 40.0 Nitric Acid
(mL)

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito 061522
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas 061522

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)	SDS Information		
											(Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	NIST SRM

1. Lead(II) nitrate (Pb)	IN029	PBD12201641	10000	99.999	0.10	82.5	32.0006	32.0041	10001.1	20.0	10098-74-8	0.05 mg/m3	inhalation 88 mg/kg 3128

[1] Spectrum No.1 [17.284 sec]:58182.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	<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	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:

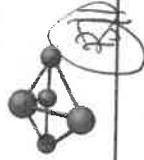
Homogeneity: No heterogeneity was observed in the preparation of this standard.

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).



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

Giovanni Esposito	
Formulated By:	Giovanni Esposito 092122
Pedro L. Rentas	
Reviewed By:	Pedro L. Rentas 092122

SDS Information

Expanded
Uncertainty
(Solvent Safety Info. On Attached pg.)
LD50 OSHA PEL (TWA) NIST SRM

Actual
Conc. (µg/mL)
CAS#

Actual
Weight (g)
Conc. (µg/mL)

Target
Weight (g)

Assay
(%)

Purity
(%)

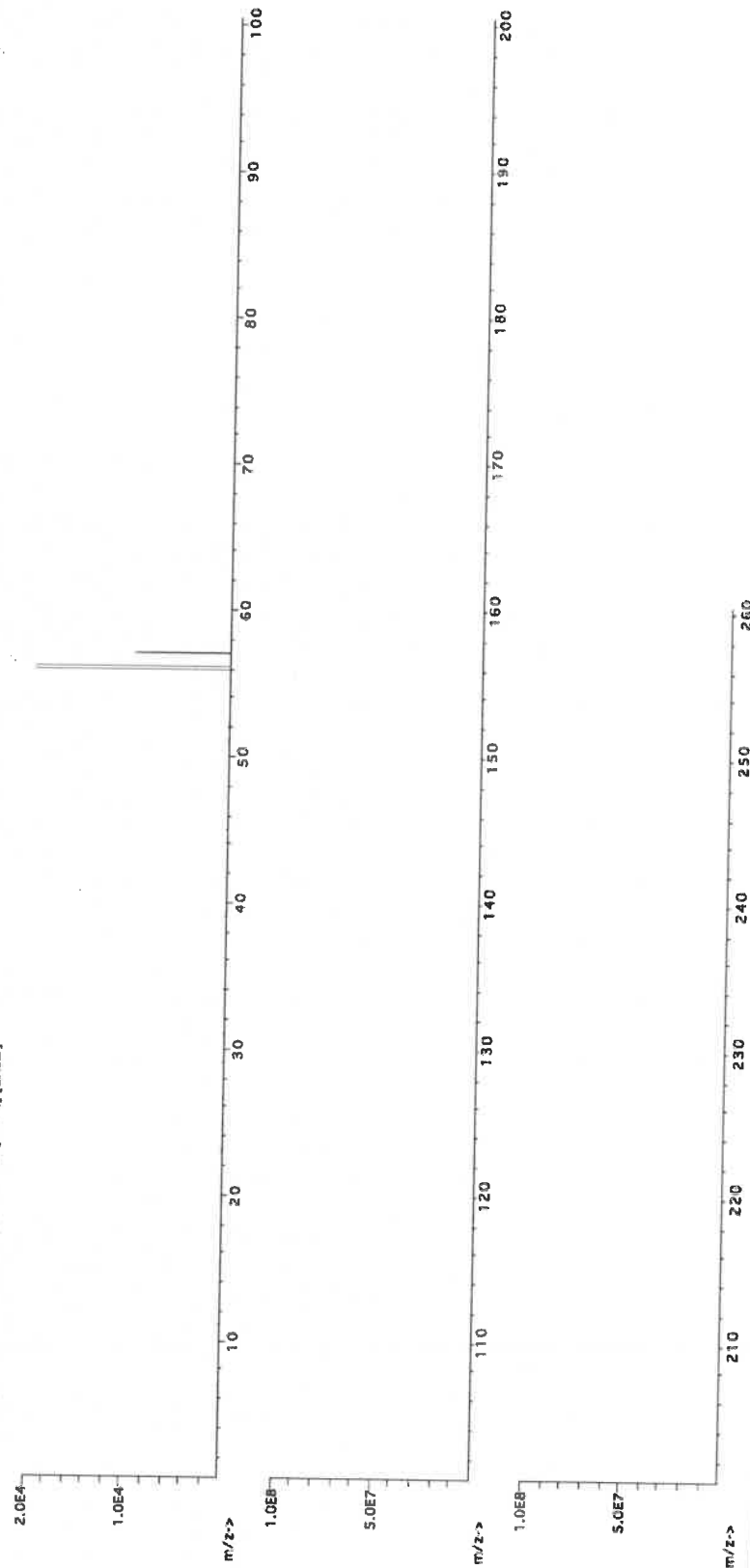
Nominal
Conc. (µg/mL)

Lot
Number

RM#

Compound	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. Iron (Fe)													

[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

- * 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: **58119**
Lot Number: **120822**
Description: **Potassium (K)**

Solvent: 20510011 Nitric Acid

Lot #

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

2% 60.0 (mL) Nitric Acid

Weight shown below was diluted to (mL): 3000.4

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

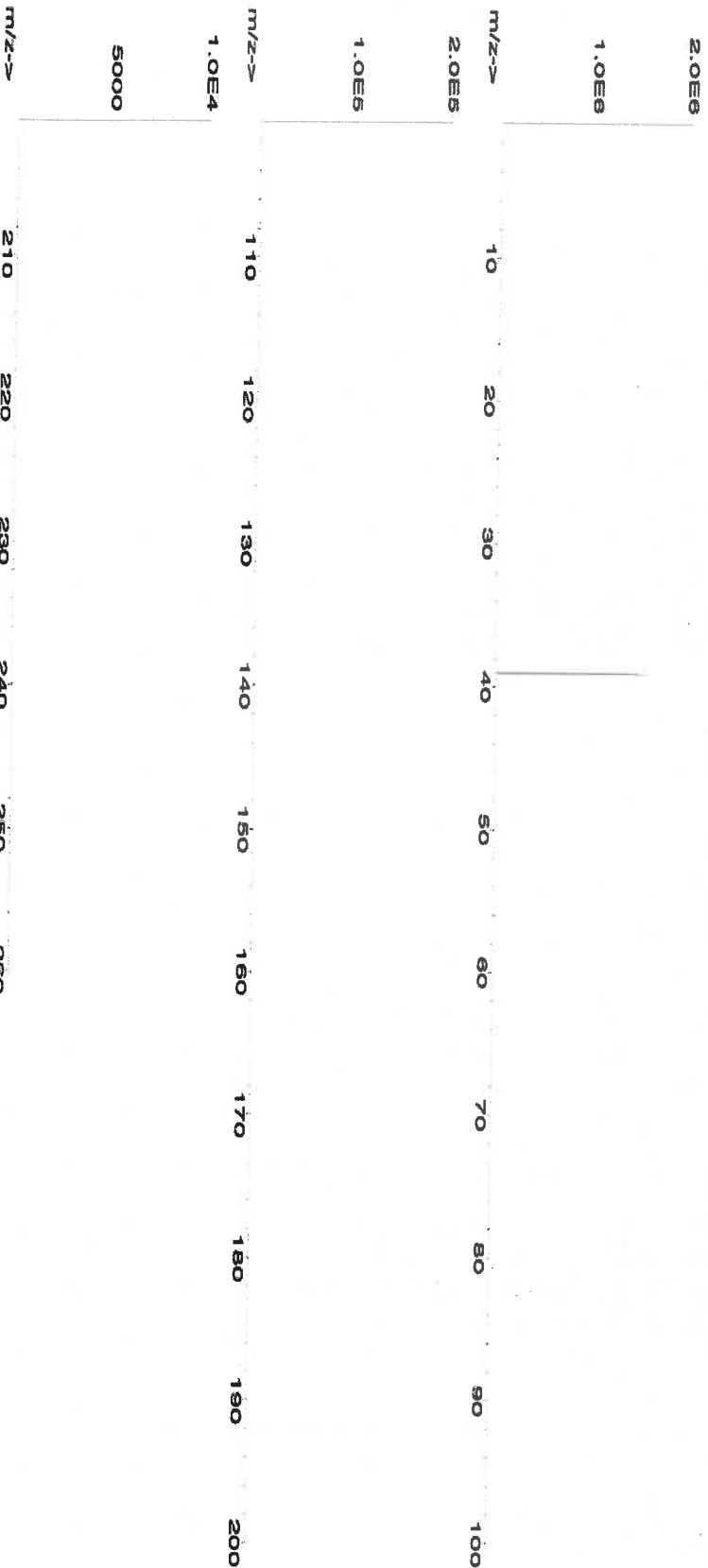
<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	Pedro L. Rentas
	120822

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. Potassium nitrate (K) IN034 KD022021A1 10000 99.989 0.10 37.6 79.7990 79.8075 10001.1 20.0 7757-79-1 5 mg/m3 or/air 3015 mg/kg 3141a

[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).



CERTIFIED WEIGHT REPORT:

Part Number: 58024
Lot Number: 060523
Description: Chromium (Cr)

Lot #
21110221
Solvent: Nitric Acid

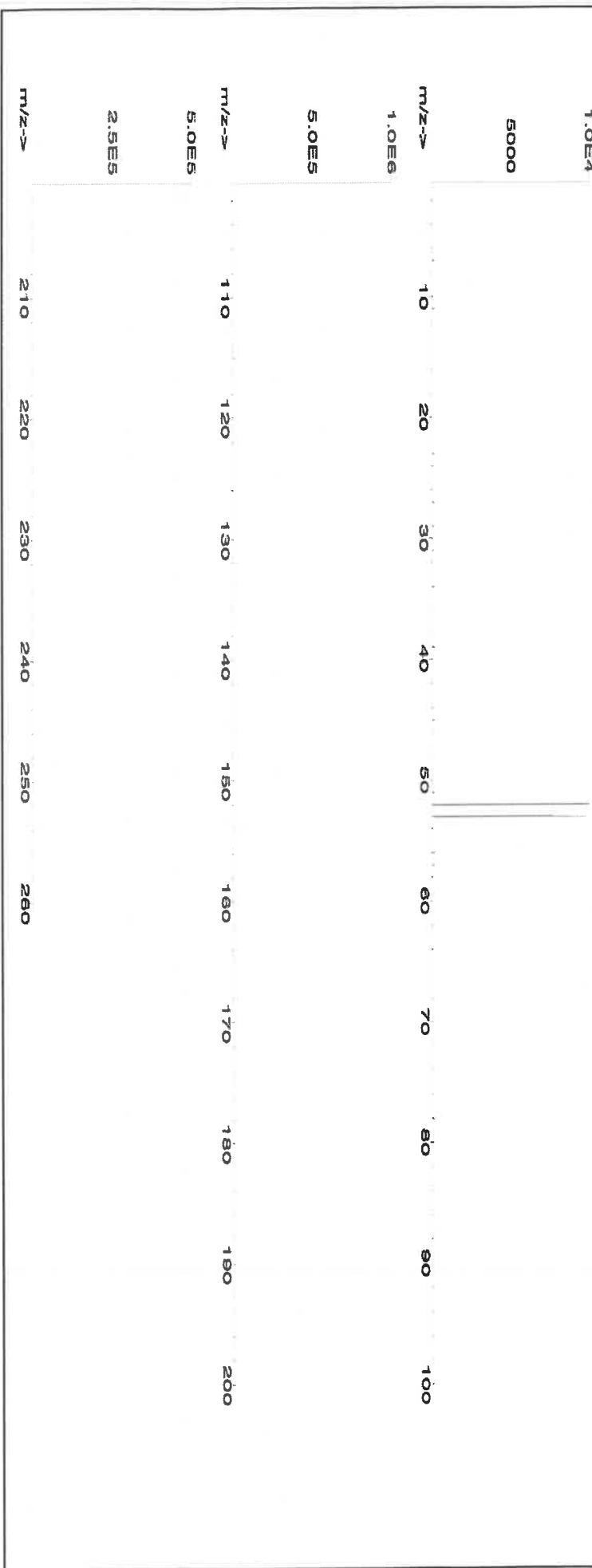
Formulated By:	Lawrence Barry
	060523
Reviewed By:	Pedro L. Ruelas
	060523

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
5E-05 Balance Uncertainty
0.058 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.
- * 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).



M5648 R:10/23/23



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

58025
102623
Manganese (Mn)

Lot #
Solvent:

24002546
Nitric Acid

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
Flask Uncertainty

2.0%
60.0
(mL)
Nitric Acid

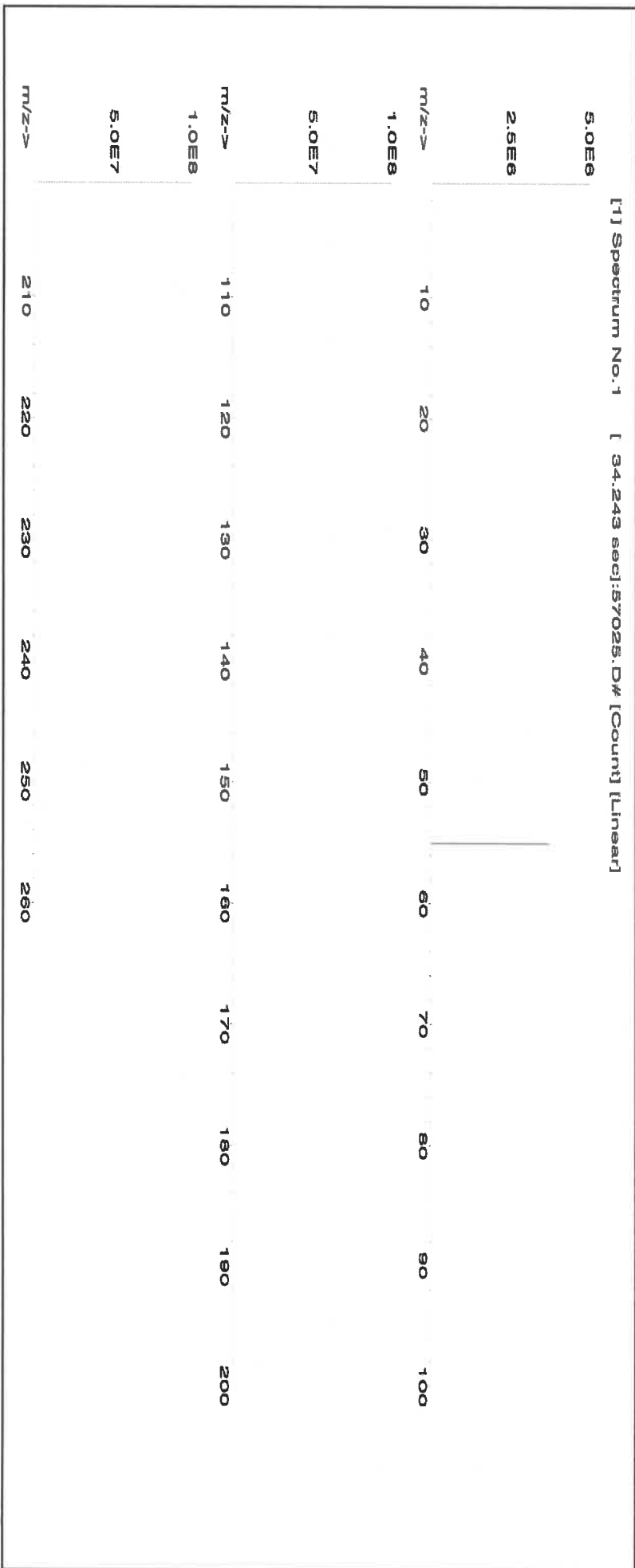
Formulated By:	Benson Chan	102623
Reviewed By:	Pedro L. Ruelas	102623

Compound

Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	NIST SRM

1. Manganese(II) nitrate tetrahydrate (Mn) 58125 071123 0.1000 300.0 0.084 1000 10000.1 1000.0 2.1 20694-39-7 5 mg/m3 or-rel >300mg/kg 3132

[1] Spectrum No.1 [34.243 sec]:57025.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	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the balances that are calibrated with weights traceable to NIST (see above).
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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: **58029**
Lot Number: **071723**
Description: **Copper (Cu)**

Lot #: **2110221**
Solvent: **Nitric Acid**

2.0%

40.0 (mL)
Nitric Acid

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Ruelas	071723

Expiration Date: **071726**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6L7B**

Volume shown below was diluted to (mL): **2000.02**
Balance Uncertainty: **5E-05**
Flask Uncertainty: **0.058**

SDS Information

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. Copper(II) nitrate trihydrate (Cu) 58129 022723 0.1000 200.0 0.084 1000 10000.5 1000.0 2.2 10031-43-3 1 mg/m3 or rat 794 mg/kg 3114

[1] Spectrum No.1 [33.422 sec]:58029.D# [Count] [Linear]

1.0E6	m/z-->	10	20	30	40	50	60	70	80	90	100
5.0E5	m/z-->	110	120	130	140	150	160	170	180	190	200
2.5E7	m/z-->	210	220	230	240	250	260				



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	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	La	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	Pb	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	Ta	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02			Nd	<0.02	K	<0.2	Sc	<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 0.058 Flask Uncertainty

M5768 M5769

BP R: 1/13/24

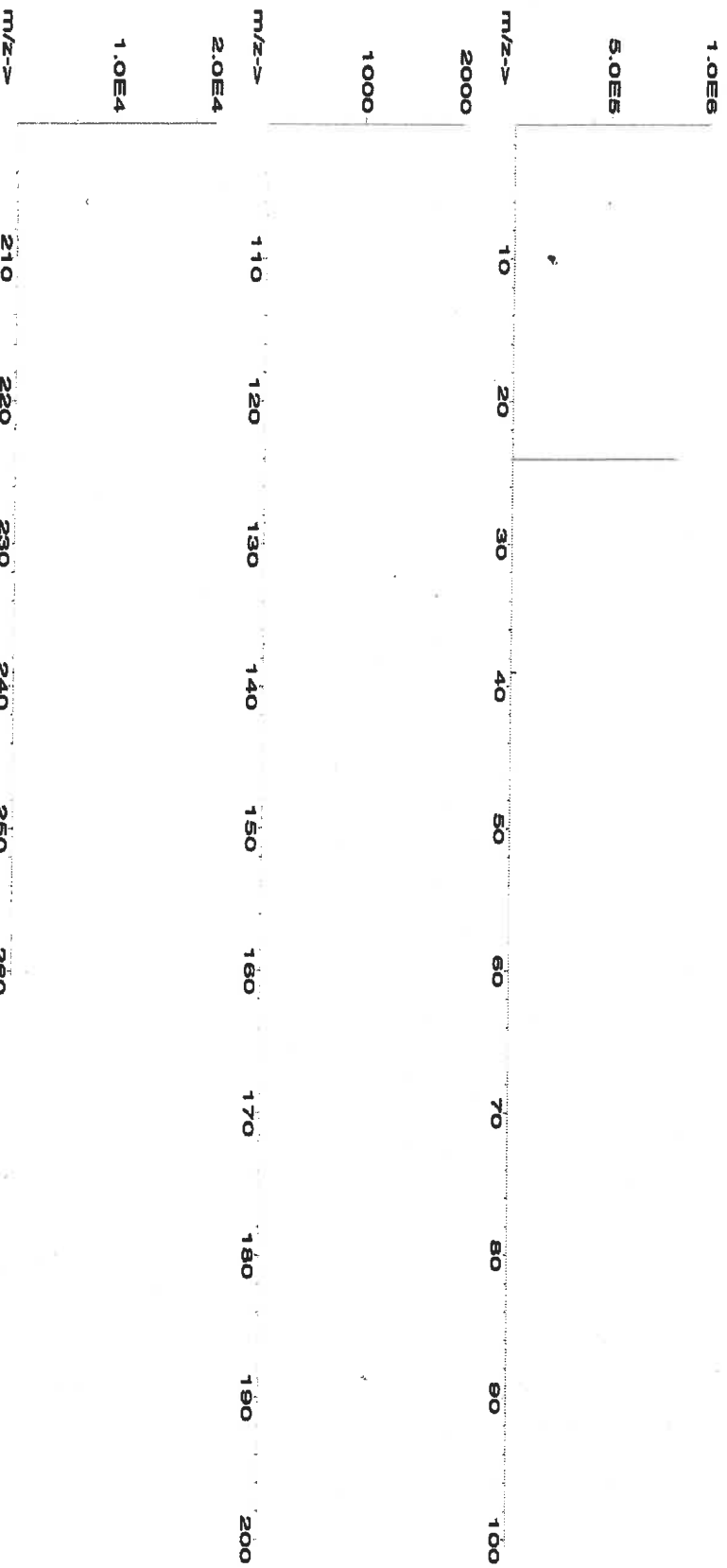
Formulated By: <i>Lawrence Barry</i>		091823
Reviewed By: <i>Pedro L. Rentas</i>		091823

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)	+/- (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-rat 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.
- * 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: 57004
Lot Number: 102523
Description: Beryllium (Be)

Lot # 24002546
Solvent: Nitric Acid

Expiration Date:

102526

2.0%

40.0 (mL)

Nitric Acid

Recommended Storage:
Nominal Concentration (µg/mL):

Ambient (20 °C)

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL):

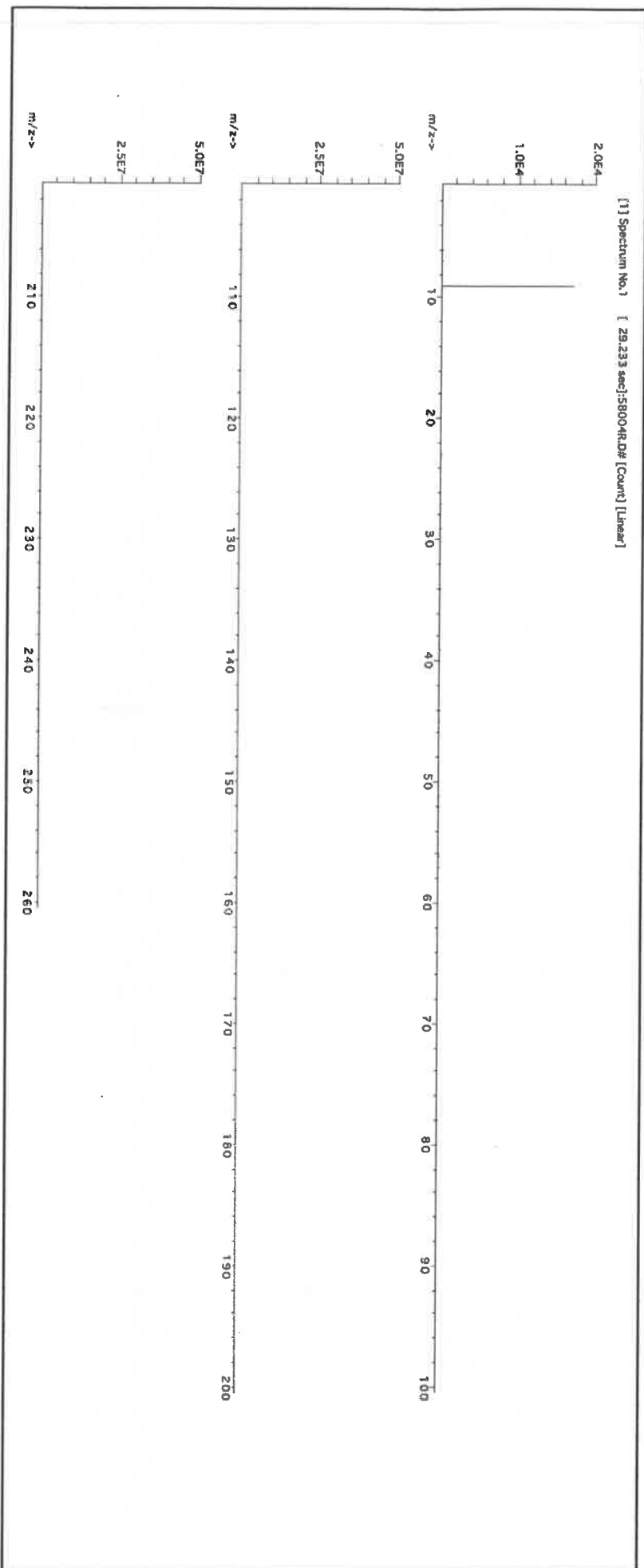
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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

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





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	Ta	<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.

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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 Reference Material CRM

CERTIFIED WEIGHT REPORT:

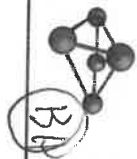
Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

Solvents: 21110221 Nitric Acid
22D0562008 Hydrochloric acid

Lot #

R-02509124

M599



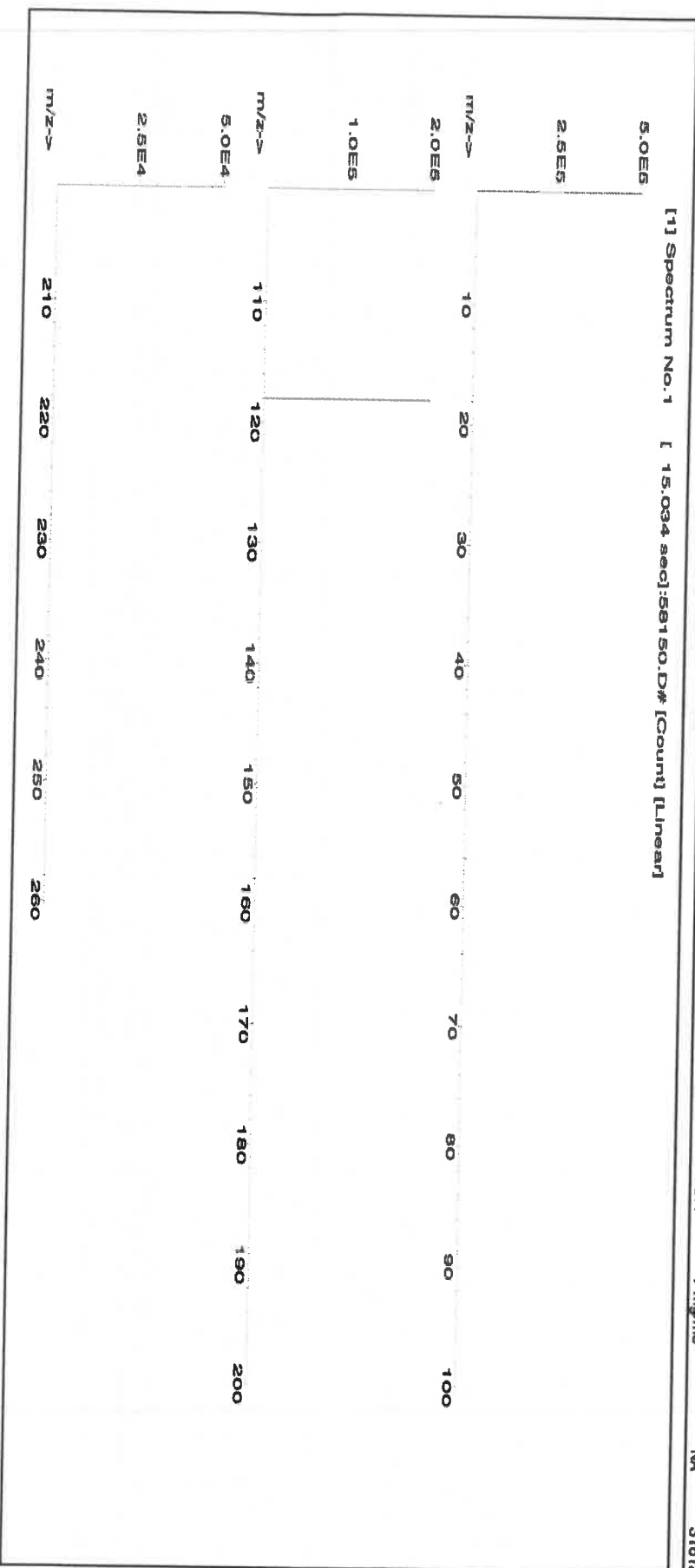
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By: Benson Chan	
071123	
Reviewed By: Pedro L. Rientas	
071123	

SDS Information												
Compound	Lot	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty (%)	NIST		
										(Solvent Safety Info. On Attached pg.)		
RM#	Number											

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	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	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.
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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).



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)

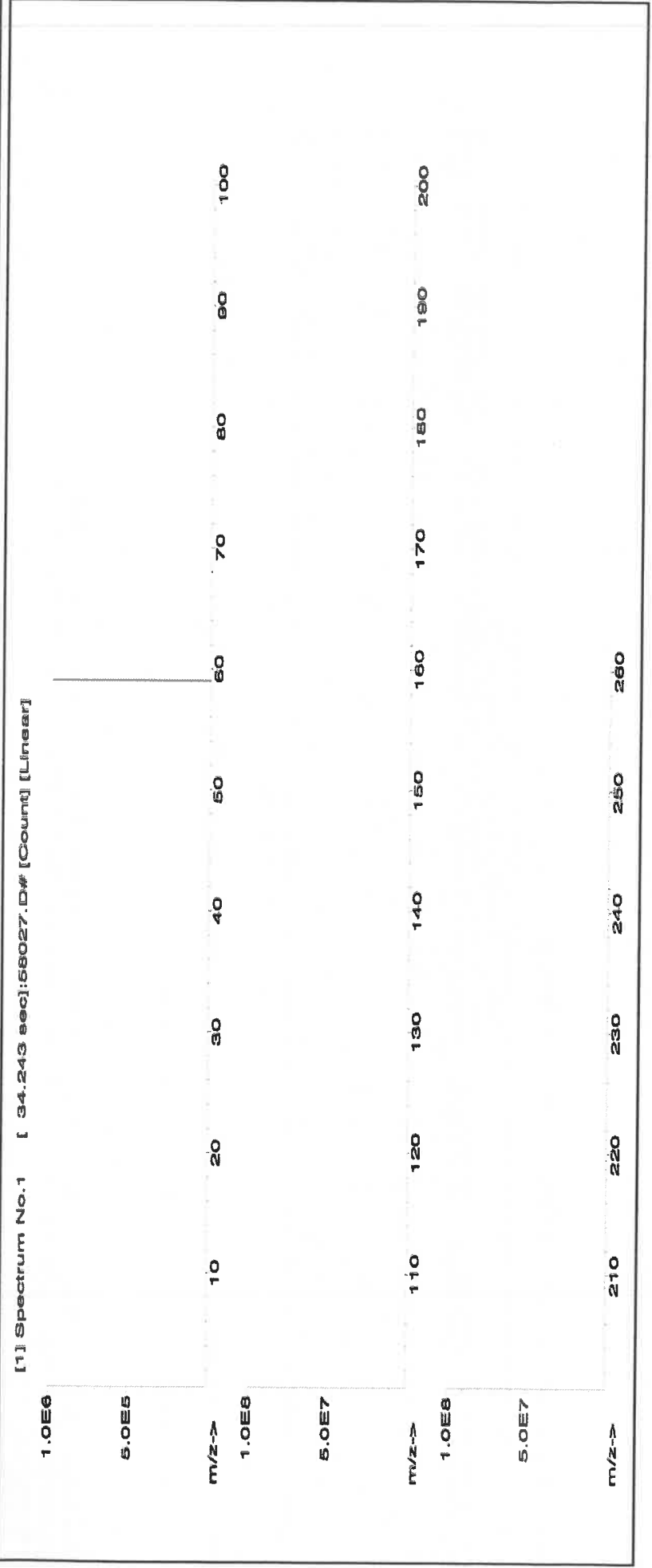
Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas

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	<0.02	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:

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

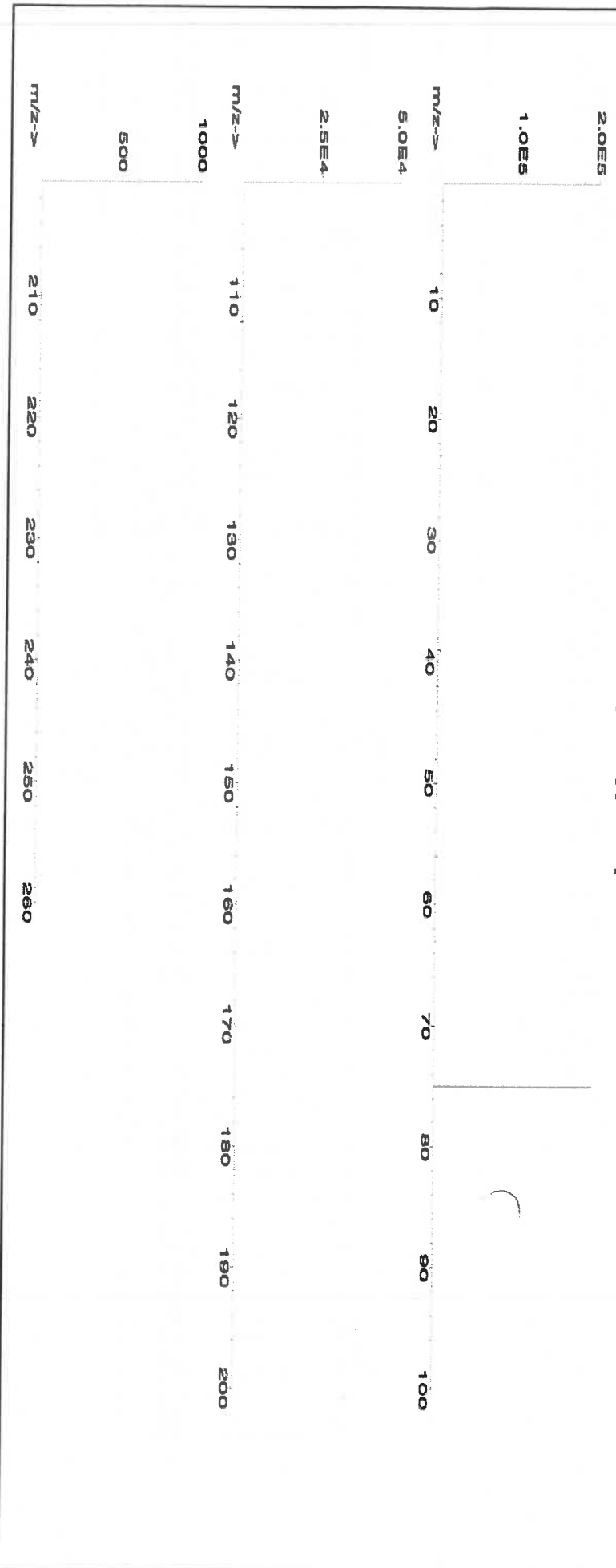
Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rendas	111323

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

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

[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
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	Sa	<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: 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

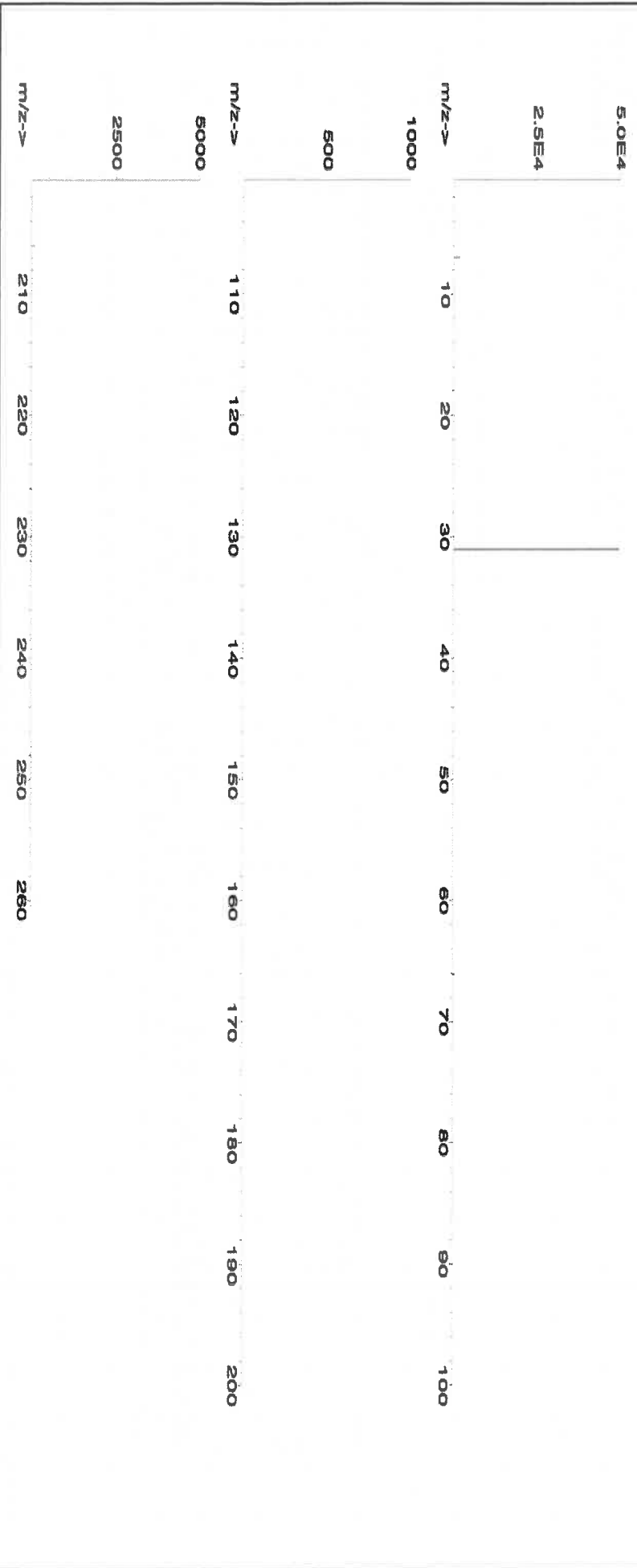
Weight shown below was diluted to (mL): 2000.02 0.056 Balance Uncertainty Flask Uncertainty

Formulated By: Lawrence Barry	041723
Reviewed By: Pedro L. Rentas	041723

Compound										SDS Information		NIST SRM
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)	(Solvent Safety Info. On Attached pg.)	CAS#	LD50

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 ($\mu\text{g/mL}$)

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	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

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 0.01-0.14250mg/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)**

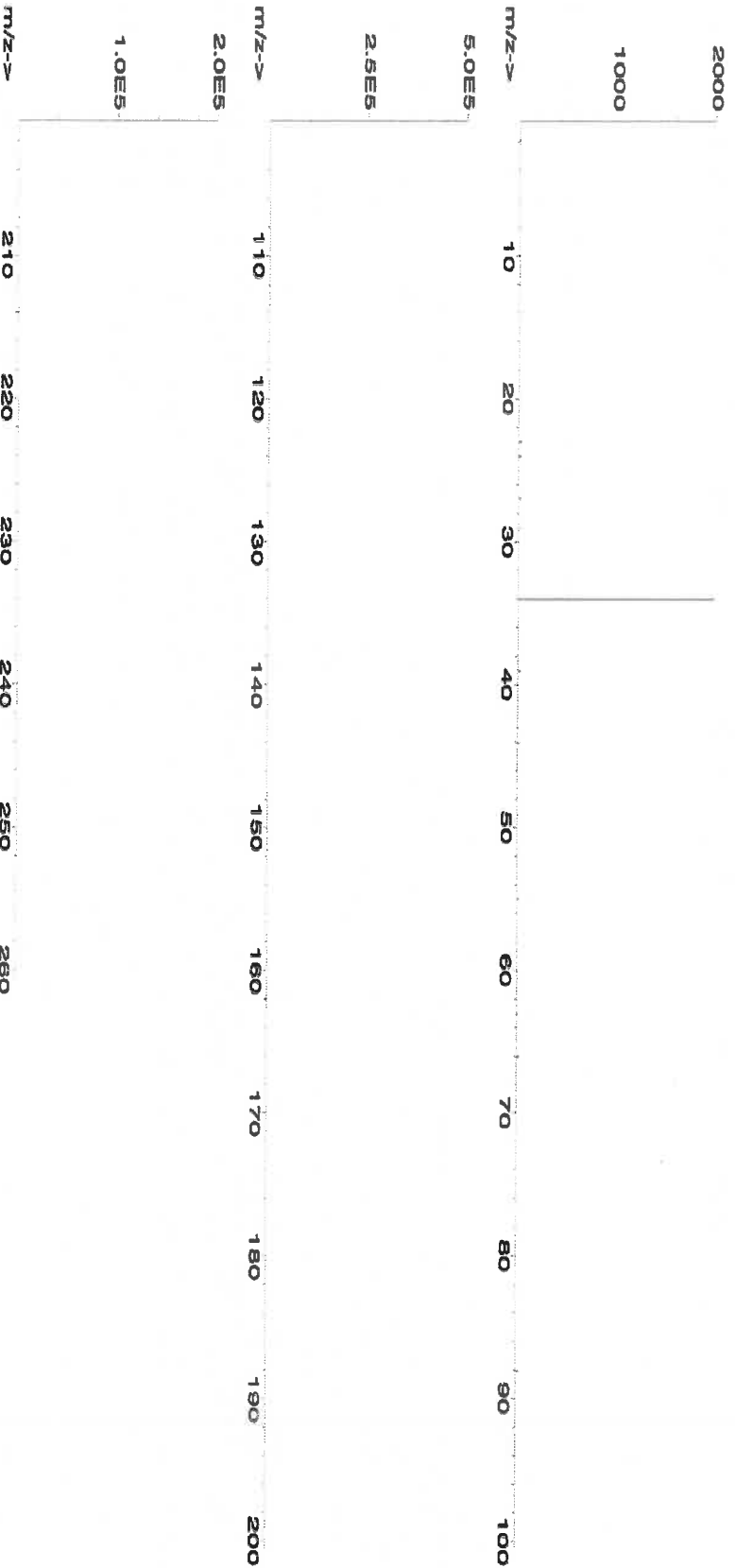
Lot #
Solvent: 071123
ASTM Type 1 Water

Formulated By:	Lawrence Barry
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	oralal 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	Ti	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

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: **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**

5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): **1999.48 0.058 Flask Uncertainty**

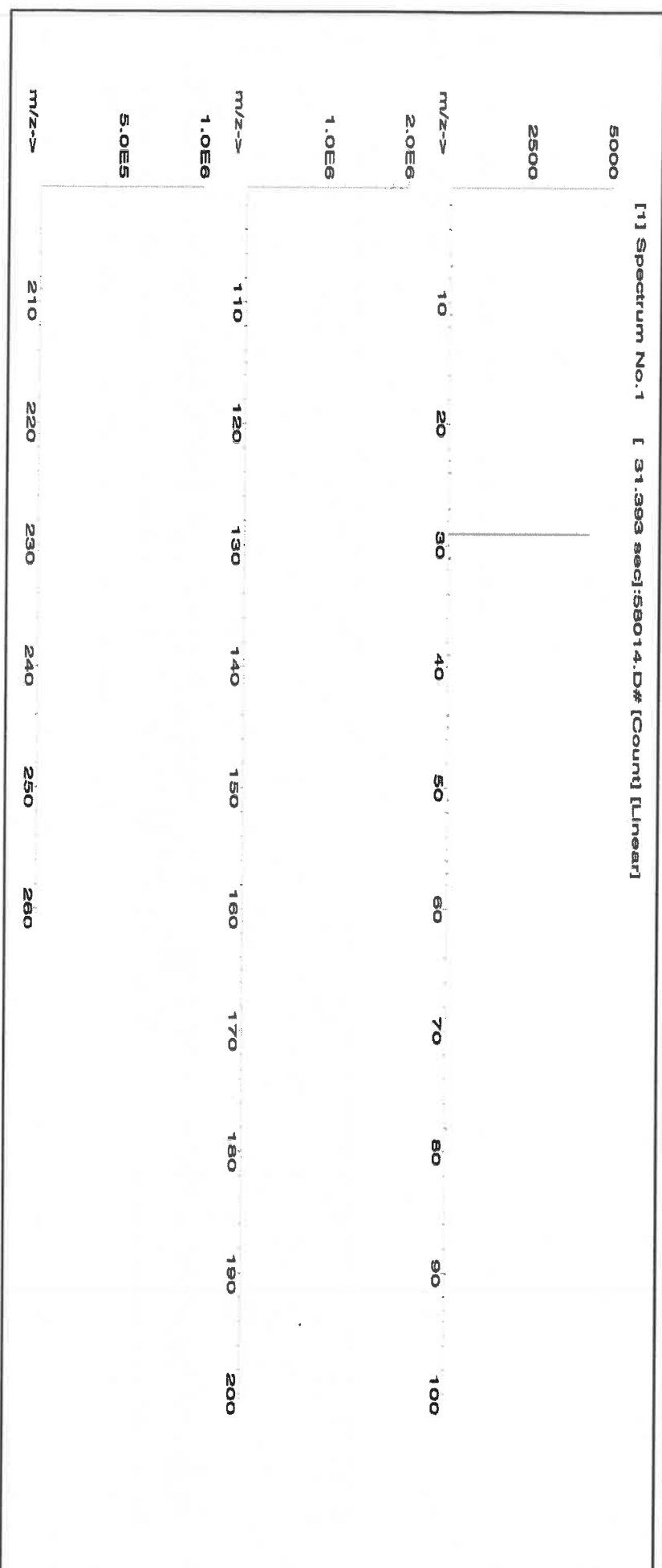
<i>Aleah O Brady</i>	
Formulated By:	Aleah O Brady
Reviewed By:	<i>Pedro L. Rentas</i>
	Pedro L. Rentas
	122023

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

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]





Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

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	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

Physical Characterization:

Certified by:

Mr. J. J. [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).



CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Solvent: 24002546 Nitric Acid

2% 60.0 (mL) Nitric Acid

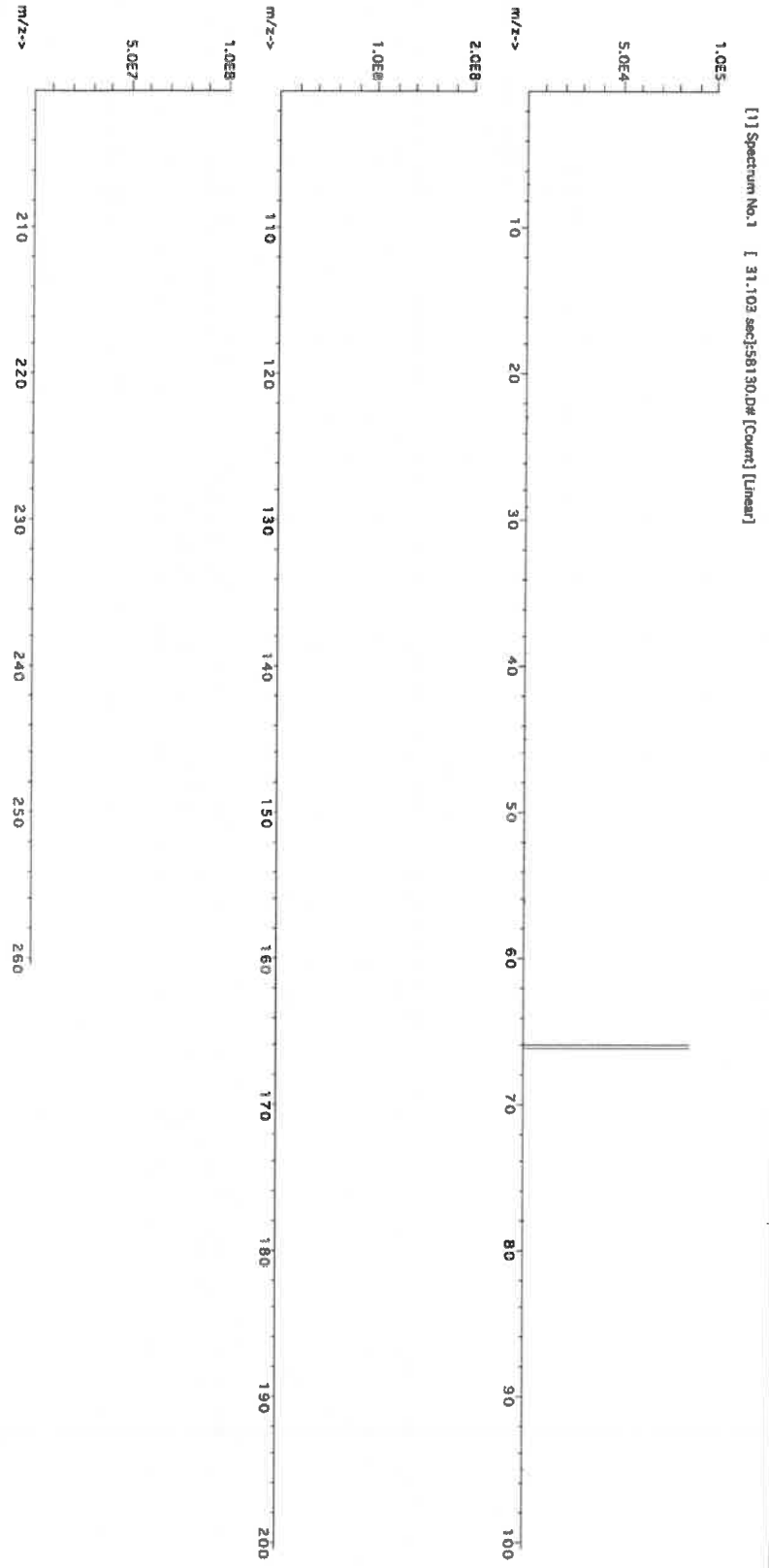
Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 3000.4 0.06 Balance Uncertainty
Flask Uncertainty

Formulated By:	Benson Chan
Reviewed By:	Pedro L. Reintas
111623	

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)	LDSO	NIST SRM

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

2% 40.0 (mL) Nitric Acid

Expiration Date: 091126

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6LJB

5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

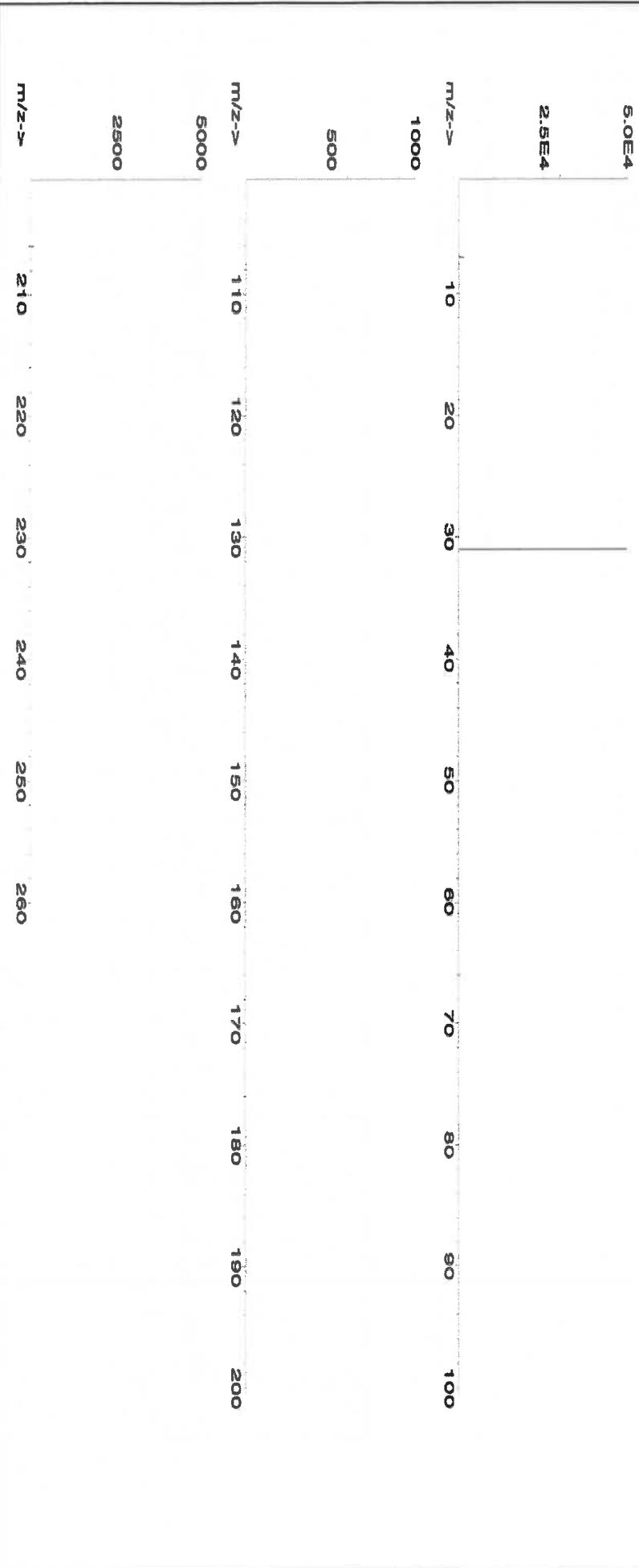
Compound

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

SDS Information

1. Ammonium dihydrogen phosphate (P) IN008 PVO62019A1 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 (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	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.
- * 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:

MS961 R-1 6/11/24

Lot #

Part Number: 57028

Lot Number: 041124

Description: Nickel (NI)

Solvent: 24002546 Nitric Acid

2% 5.0 (mL) Nitric Acid

Expiration Date: 041127

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 249.85 5E-05 Balance Uncertainty 0.002 Flask Uncertainty

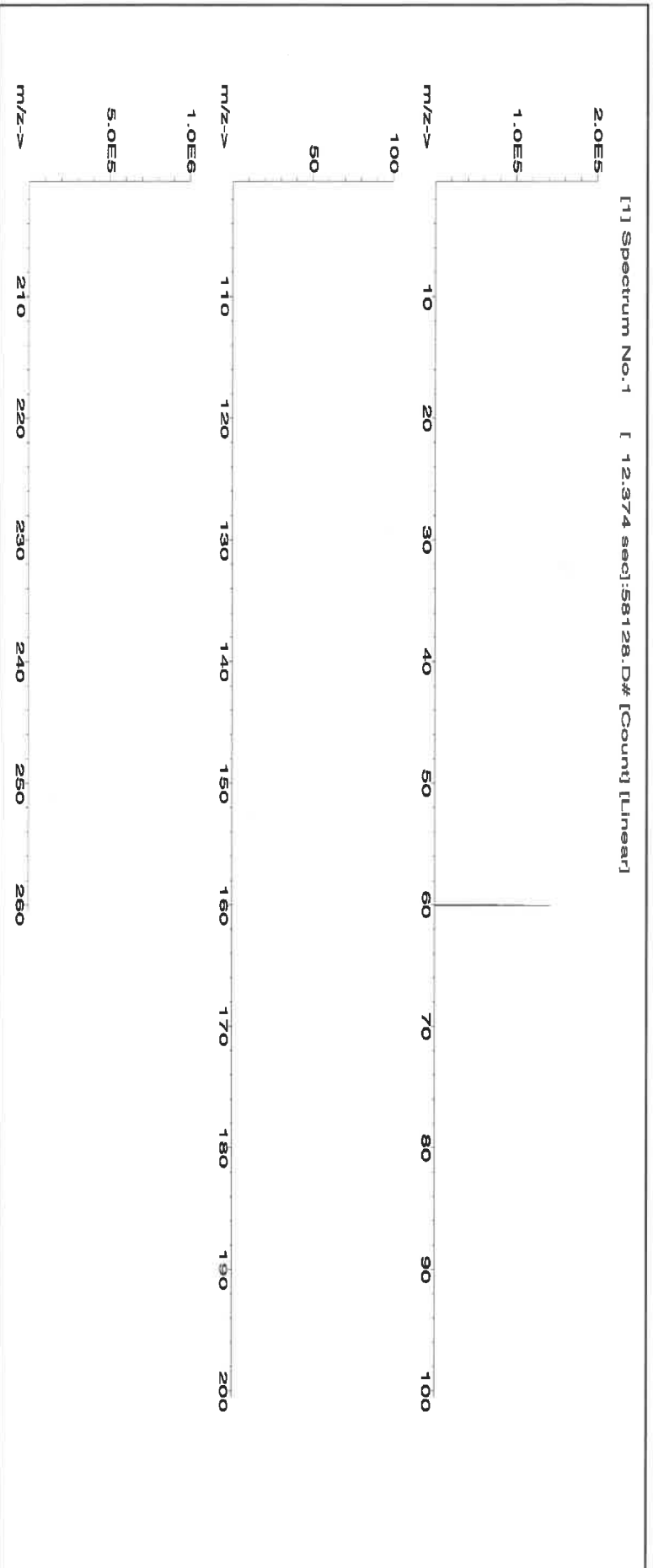
Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

SDS Information

Compound	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Uncertainty	(Solvent Safety Info. On Attached pg.)			NIST
	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SRM
	RM#												

1. Nickel(II) nitrate hexahydrate (NI) IN033 NIM052023A1 1000 99.999 0.10 20.2 1.2369 1.2369 1000.0 2.0 13478-00-7 1 mg/m3 or-rat 1620 mg/kg 3136

[1] Spectrum No.1 [12.374 sec]:58128.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	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	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
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:

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**

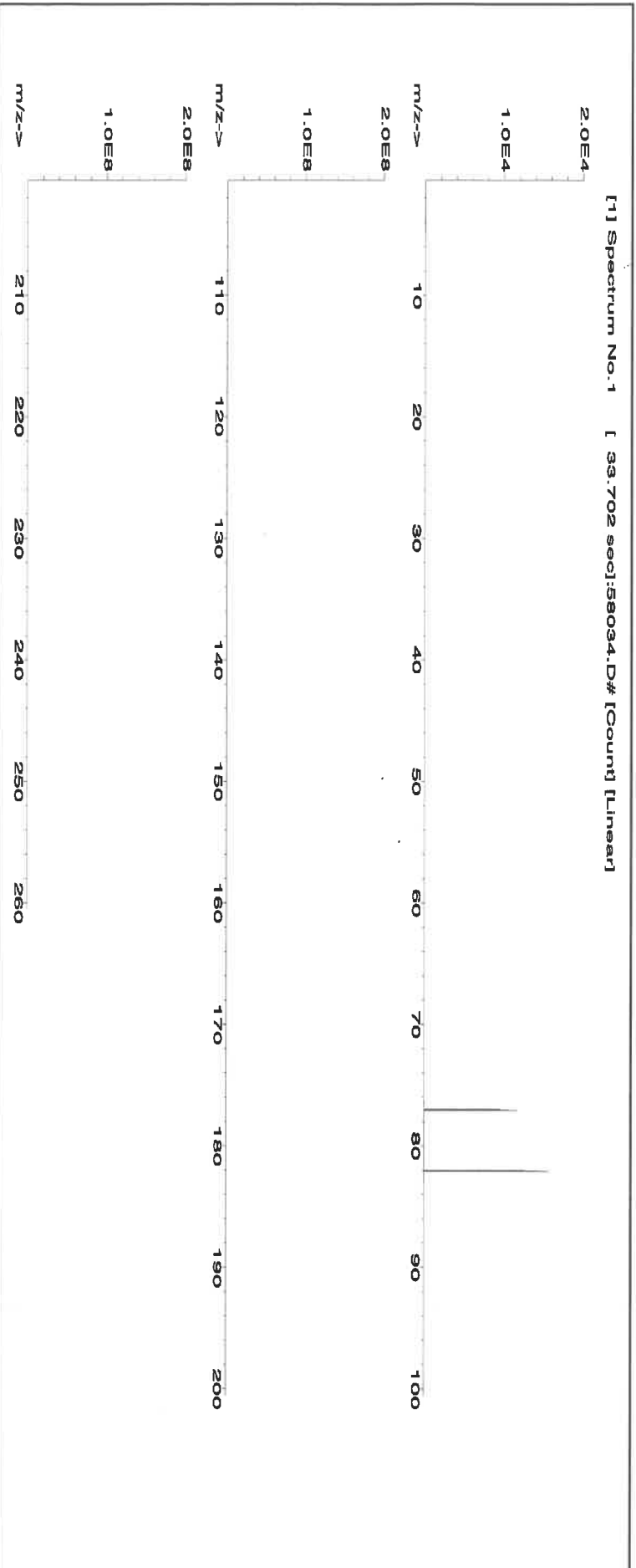
Volume shown below was diluted to (mL): **2000.07**

SE-05 Balance Uncertainty
0.100 Flask Uncertainty

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
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	3149

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rantas	060624





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	<0.02	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	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	Sb	<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).

Certificate of Analysis

M5976, M5977

R: 02/22/24

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: Single Analyte Custom Grade Solution
Catalog Number: CGMO1
Lot Number: T2-MO720876
Matrix: H2O
tr. NH4OH
Value / Analyte(s): 1 000 µg/mL ea:
Molybdenum
Starting Material: Ammonium Molybdate
Starting Material Lot#: 2361
Starting Material Purity: 99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL
Density: 1.000 g/mL (measured at 20 ± 4 °C)
Assay Information:

Assay Method #1 998 ± 4 µg/mL
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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

Characterization of CRM/RM by Two or More Methods

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

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

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.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9

[MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br16O,190Os2+,190Pt2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.569.6799; 540.585.3030, Fax: 540.585.3012; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis



Refine your results. Redefine your industry.

300 Technology Drive
Christiansburg, VA 24073 USA
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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: Ti Metal

Starting Material Lot#: 2094

Starting Material Purity: 99.9975%

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 1002 ± 4 µg/mL

ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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

Characterization of CRM/RM by Two or More Methods
Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = 2(w) / (w_1 + w_2)$$

w_1 = the weighting factors for each method calculated using the inverse square of the variance

$$w_1 = (1/u_{CRM}^2) / (1/u_{CRM}^2 + 1/u_{CRM}^2)$$

$$u_{CRM}^2 = (u_{CRM}^2) / (2 \times (1/u_{CRM}^2 + 1/u_{CRM}^2))$$

$$k = \text{coverage factor} = 2$$

$$u_{CRM} = (2(w)) / (u_{CRM}^2 + u_{CRM}^2)$$

$$u_{CRM} = \text{long term stability standard uncertainty (storage)}$$

$$u_{CRM} = \text{transport stability standard uncertainty}$$

CRM/RM Expanded Uncertainty (2) = u_{CRM}^2
 $k = \text{coverage factor} = 2$
 $u_{CRM} = \text{long term stability standard uncertainty (storage)}$
 $u_{CRM} = \text{transport stability standard uncertainty}$
 $u_{CRM} = \text{long term stability standard uncertainty (storage)}$
 $u_{CRM} = \text{transport stability standard uncertainty}$

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 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
O Al	<	0.000872	O Fe	<	0.003225	O Nb	<	0.043560	O Si	<	0.004735	O Zr	<	0.043560
M As	<	0.008586	M Ga	<	0.000268	M Nd	<	0.000268	M Sm	<	0.000268			
M Au	<	0.004577	M Gd	<	0.000268	O Ni	<	0.010890	M Sn	<	0.000986			
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 Tl	<	0.053663			
M Cd	<	0.000268	M Ir	<	0.000269	M Pt	<	0.000536	S Ti	<				
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	<							

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 ± 4.6 Ti(F)₆-2 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); K₂SiO₇ - no KF if silica not present); Organic Matrices (Dry ash at 450EC 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	
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1
ICP-OES 334.941 nm	0.0038 / 0.00028 µg/mL	1
ICP-OES 336.121 nm	0.0053 / 0.00034 µg/mL	1

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,
14N17N2, 36Ar12C,
48Ca, 196X=2
14N16O18O,
32S16O, 32S14N,
N/A

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; 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 Kozlowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul Gaines

80978



MS981

R:6/11/24



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57092
060724
Uranium (U)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

060727
Ambient (20 °C)
1000
6UTB

Volume shown below was diluted to (mL): 2000.07

5E-05 Balance Uncertainty
0.100 Flask Uncertainty

Lot # Solvent:
24002546 Nitric Acid

2.0% Nitric Acid
40.0 (mL)

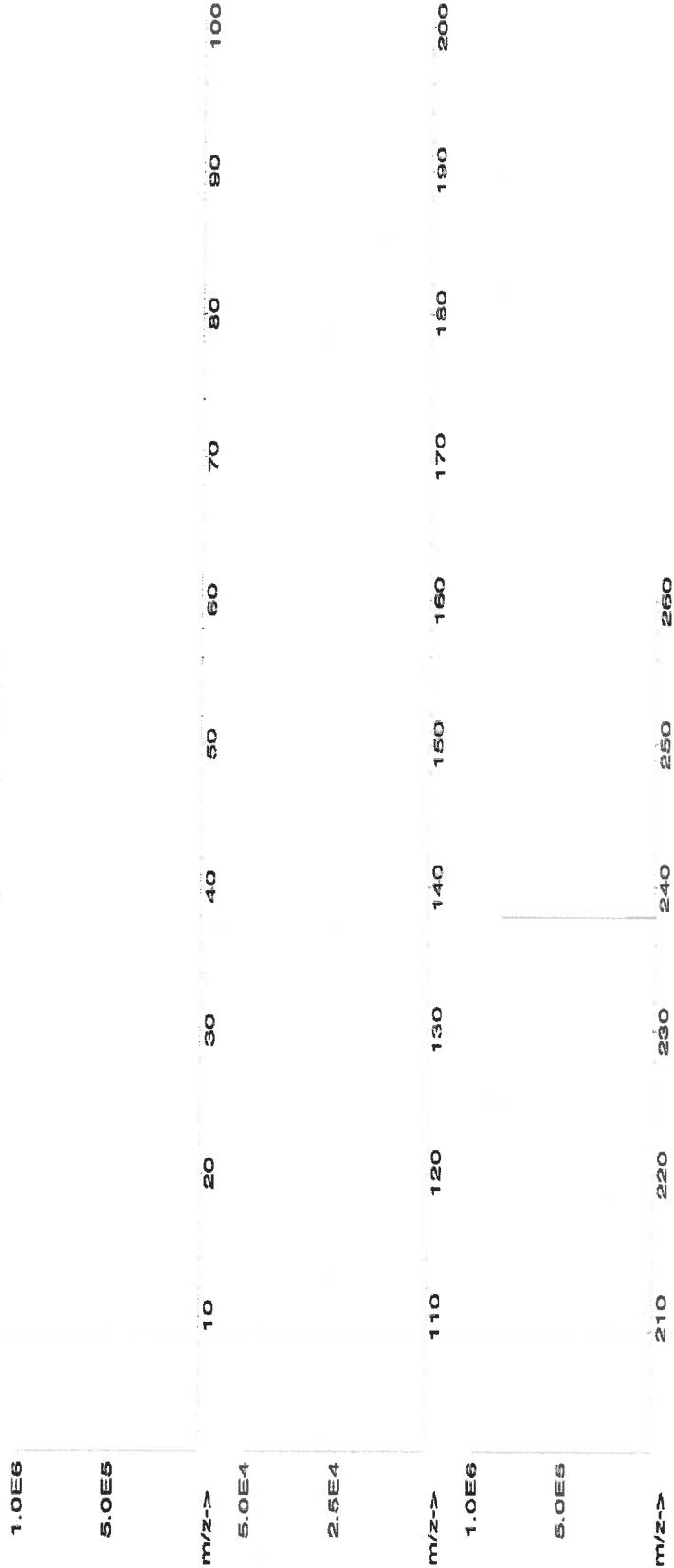
<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas

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.)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM

1. Uranyl nitrate hexahydrate (U) 58192 041524 0.1000 200.0 0.084 1000 10001.5 1000.0 2.2 13620-83-7 0.05 mg/m3 orl-rat 1040 mg/kg 3164

[1] Spectrum No.1 [23.264 sec]:57092.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	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	<0.02	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	<0.02	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:

[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).

7236 673 3 67



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

(Solvent Safety Info. On Attached pg.)

+/- (µg/mL)

LD50

CAS#

OSHA PEL (TWA)

Actual

Conc. (µg/mL)

Actual

Weight (g)

Target

Weight (g)

Assay

Purity (%)

Purity (%)

Nominal

Conc. (µg/mL)

Lot

Number

RM#

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. Strontium nitrate (Sr)

[1] Spectrum No.1 [14.495 sec]:58136.D# [Count] [Linear]

5.0E6

2.5E6

m/z-->

1.0E6

5.0E5

m/z-->

5.0E6

2.5E6

m/z-->



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:

- * 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 10:01 AM



145983

R: 6/11/24

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57040
071423
Zirconium (Zr)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

071426
Ambient (20 °C)
1000
6UTB

Volume shown below was diluted to (mL): 2000.02

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Lot # Solvent:
21110221 Nitric Acid

2.0% Nitric Acid
40.0 (mL)

Formulated By:	Benson Chan
Reviewed By:	Pedro L. Rentas

Expanded
Uncertainty
+/- (µg/mL)

Final
Conc. (µg/mL)

SDS Information
(Solvent Safety Info. On Attached pg.)

CAS# OSHA PEL (TWA) LD50

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
1. Zirconyl chloride octahydrate (Zr)	58140	070621	0.1000	200.0	0.084	1000	10000.3	1000.0	2.2	13520-92-8	NA	NA	NA

[1] Spectrum No.1 [41.153 sec]:57040.D# [Count] [Linear]

1.OE6

5.OE5

m/z-->

1.OE8

5.OE7

m/z-->

1.OE8

5.OE7

m/z-->



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	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	<0.01	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	<0.02	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	<0.2	Ta	<0.02	Ti	<0.02	Zr	T

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

Dr. P.

- * 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

R: 2/22/2024
M5999

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: CLPP-SPK-1
Lot Number: T2-MEB721963
Matrix: 7% (v/v) HNO₃
Value / Analyte(s):
2 000 µg/mL ea: Aluminum, Barium,
1 000 µg/mL ea: Iron,
500 µg/mL ea: Manganese, Nickel,
Vanadium, Zinc,
Cobalt,
250 µg/mL ea: Copper,
200 µg/mL ea: Chromium,
50 µg/mL ea: Beryllium, Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Chromium, Cr	200.0 ± 1.1 µg/mL
Cobalt, Co	500.0 ± 2.4 µg/mL	Copper, Cu	250.0 ± 1.0 µg/mL
Iron, Fe	1 000 ± 4 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Silver, Ag	50.00 ± 0.22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.070 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

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

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, 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:

$$w_i = (1/u_{\text{char } i}^2) / (\sum (1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{tts}}^2 + u_{\text{ts}}^2)^{1/2}$$

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_{tts} = 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

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{tts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{tts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

<https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver>

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 27, 2027

- The date after which this CRM/RM should not be used.
- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Certified Reference Material CRM
R: 01/03/24 M6033



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://AbsoluteStandards.com

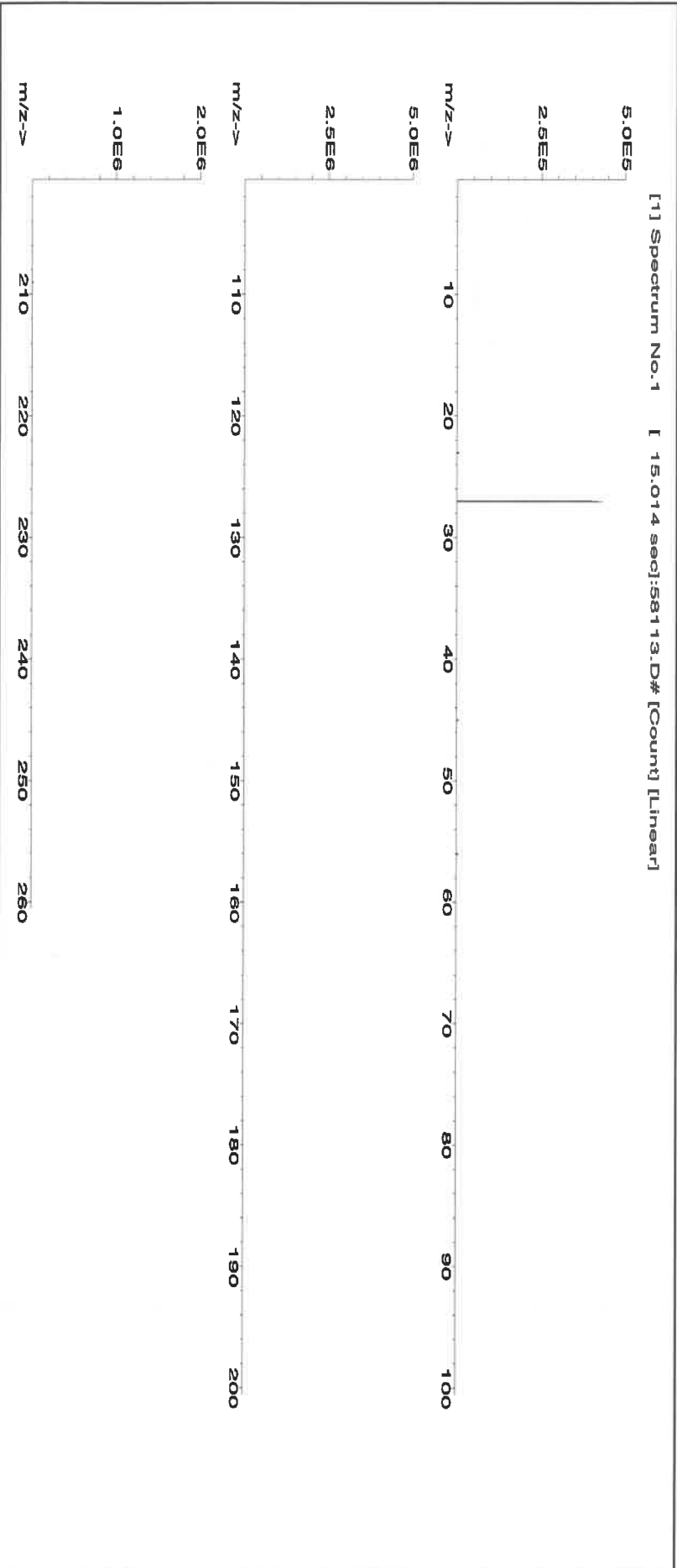
CERTIFIED WEIGHT REPORT:

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

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



18/19/24, M6055

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: IV-STOCK-12

Lot Number: U2-MEB734294

Matrix: 5% (v/v) HNO₃

Value / Analyte(s): 10 µg/mL ea:

Barium,	Beryllium,
Bismuth,	Cerium,
Cobalt,	Indium,
Lithium,	Nickel,
Lead,	Uranium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Barium, Ba	10.01 ± 0.04 µg/mL	Beryllium, Be	10.01 ± 0.05 µg/mL
Bismuth, Bi	10.01 ± 0.06 µg/mL	Cerium, Ce	10.01 ± 0.04 µg/mL
Cobalt, Co	10.01 ± 0.05 µg/mL	Indium, In	10.01 ± 0.04 µg/mL
Lead, Pb	10.00 ± 0.04 µg/mL	Lithium, Li	10.01 ± 0.04 µg/mL
Nickel, Ni	10.01 ± 0.04 µg/mL	Uranium, U	10.01 ± 0.05 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	180815
Ce	ICP Assay	3110	160830
Ce	EDTA	928	928
Ce	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Calculated		See Sec. 4.2
Li	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
U	ICP Assay	traceable to 3164	R2-U689597
U	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:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

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

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

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

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.
- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 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

- June 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



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

 **avantor™**



M6094
M6095

metdig
10/21/24

Material No.: 9530-33
Batch No.: 24D1562005
Manufactured Date: 2024-03-18
Retest Date: 2029-03-17
Revision No.: 0

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	1.192
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	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	2.2 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	31.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	0.2 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	3 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.: 24D1562005

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.2 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	0.2 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 1.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.0 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	< 0.4 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	< 0.2 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.: 24D1562005

Test	Specification	Result

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

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



Jamie Croak
Director Quality Operations, Bioscience Production

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

 **avantor™**

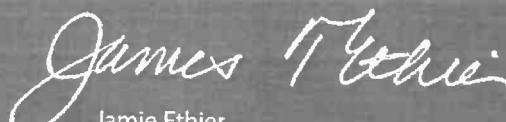


Material No.: 9530-33
Batch No.: 22F0762009

Test	Specification	Result

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

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


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

 **avantor™**

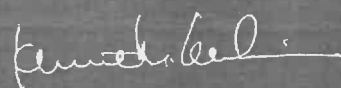


Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result

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**TM



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

 **avantor™**

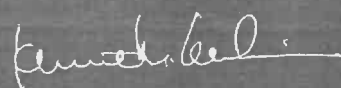


Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result

For Microelectronic Use

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



Ken Koehnlein
Sr. Manager, Quality Assurance



CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 122223
Description: Sodium (Na)

Solvent: 24002546 Nitric Acid

Lot #

Expiration Date: 122226

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB

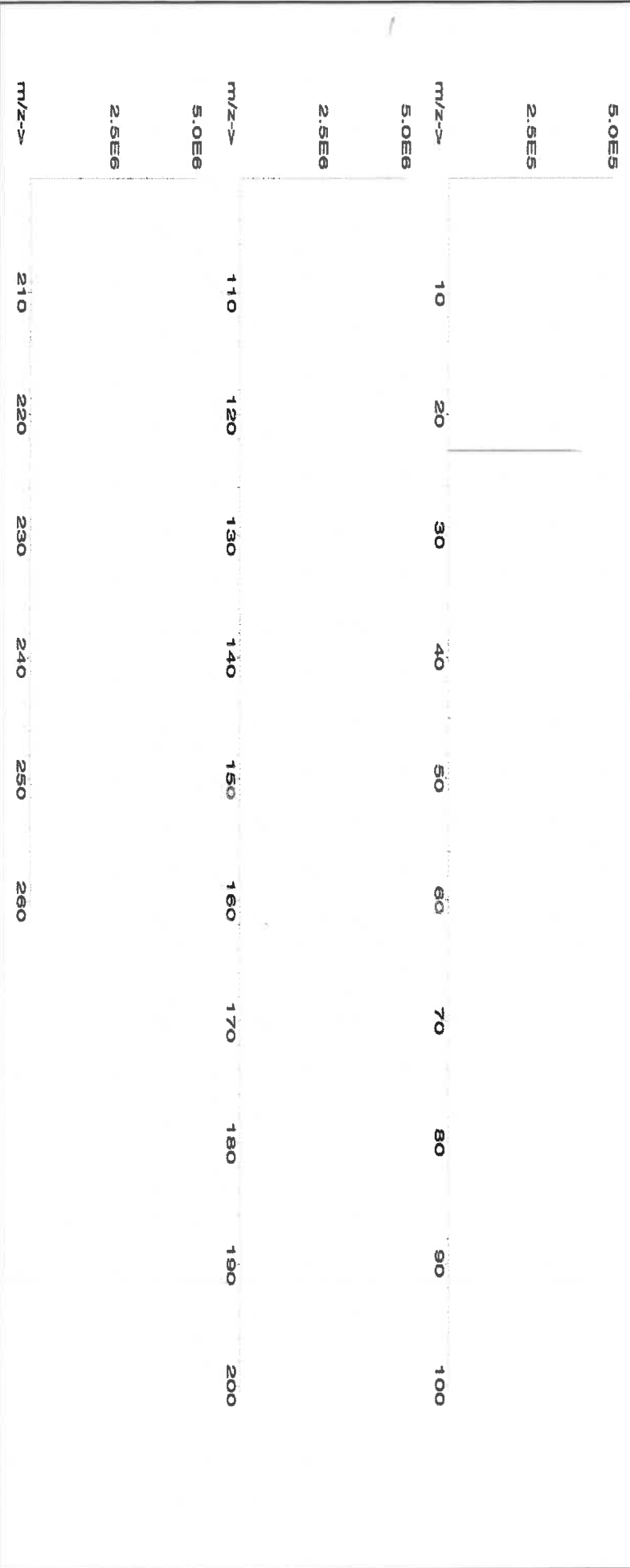
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

<i>Aleah O Brady</i>	
Formulated By:	Aleah O Brady
Reviewed By:	Pedro L. Rentas
	122223

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information				NIST SRM
											(Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50	

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).



Refine your results. Redefine your industry.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

A: 4/11/22
Certificate of Analysis
M5738 M5739 M5740 M5741 M5742
M5743

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: 6020ISS
Lot Number: S2-MEB709511
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 µg/mL ea:
Bismuth, Holmium,
Indium, 6-Lithium,
Rhodium, Scandium,
Terbium, Yttrium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
6-Lithium, Li6	10.00 ± 0.03 µg/mL	Bismuth, Bi	10.00 ± 0.05 µg/mL
Holmium, Ho	10.00 ± 0.05 µg/mL	Indium, In	10.00 ± 0.04 µg/mL
Rhodium, Rh	10.00 ± 0.07 µg/mL	Scandium, Sc	10.00 ± 0.04 µg/mL
Terbium, Tb	10.00 ± 0.04 µg/mL	Yttrium, Y	10.00 ± 0.04 µg/mL

Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Bi	ICP Assay	3106	180815
Bi	Calculated		See Sec. 4.2
Ho	ICP Assay	3123a	090408
Ho	EDTA	928	928
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li6	Gravimetric		See Sec. 4.2
Rh	ICP Assay	3144	070619
Sc	ICP Assay	3148a	100701
Sc	EDTA	928	928
Tb	ICP Assay	3157a	100518
Tb	EDTA	928	928
Tb	Calculated		See Sec. 4.2
Y	ICP Assay	3167a	120314
Y	EDTA	928	928
Y	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

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Lithium Li6	95.6 ± 0.3
Lithium Li7	4.4 ± 0.1

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"

- 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 03, 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 03, 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





**QATS LABORATORY INORGANIC REFERENCE MATERIAL
 INTERFERENCE CHECK SAMPLE SET FOR ICP-MS (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 an 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-0803" and for the ICSAB mixture use "ICSA-0803+ICSB-0803".**

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 the Contracting Officer, Ross Miller at miller.ross@epa.gov. If directed by Ross Miller, 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

This interference check sample set is to be used to verify elemental isobaric correction factors of inductively coupled plasma-mass spectrometers (ICP-MS). This reference material set consists of two (2) concentrated solutions. The ICSA solution contains several interferent elements and species; for a complete listing refer to the CLP SOW. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for the ICP-MS ICS 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-0803, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO₃. Analyze this solution by ICP-MS.

ICSB-0803, Analytes, mixed with ICSA-0803, 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 1% v/v HNO₃. Analyze this ICSAB solution by ICP-MS.

(D) "CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS 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-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803							
Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[] Indicates analytes that do not require ICP-MS determination in the ICS.

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 2 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.



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 INTERFERENCE CHECK SAMPLE SET FOR ICP-MS (ICSA WITH ICSB)**

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HAZARDOUS MATERIAL

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(A) SAMPLE DESCRIPTION

Enclosed is a set of one (1) or more bottles of an 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-0803" and for the ICSAB mixture use "ICSA-0803+ICSB-0803".**

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.**

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Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

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ICSB-0803, Analytes, mixed with ICSA-0803, 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 1% v/v HNO₃. Analyze this ICSAB solution by ICP-MS.

(D) "CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS 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-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803							
Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[] Indicates analytes that do not require ICP-MS determination in the ICS.

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 2 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.



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

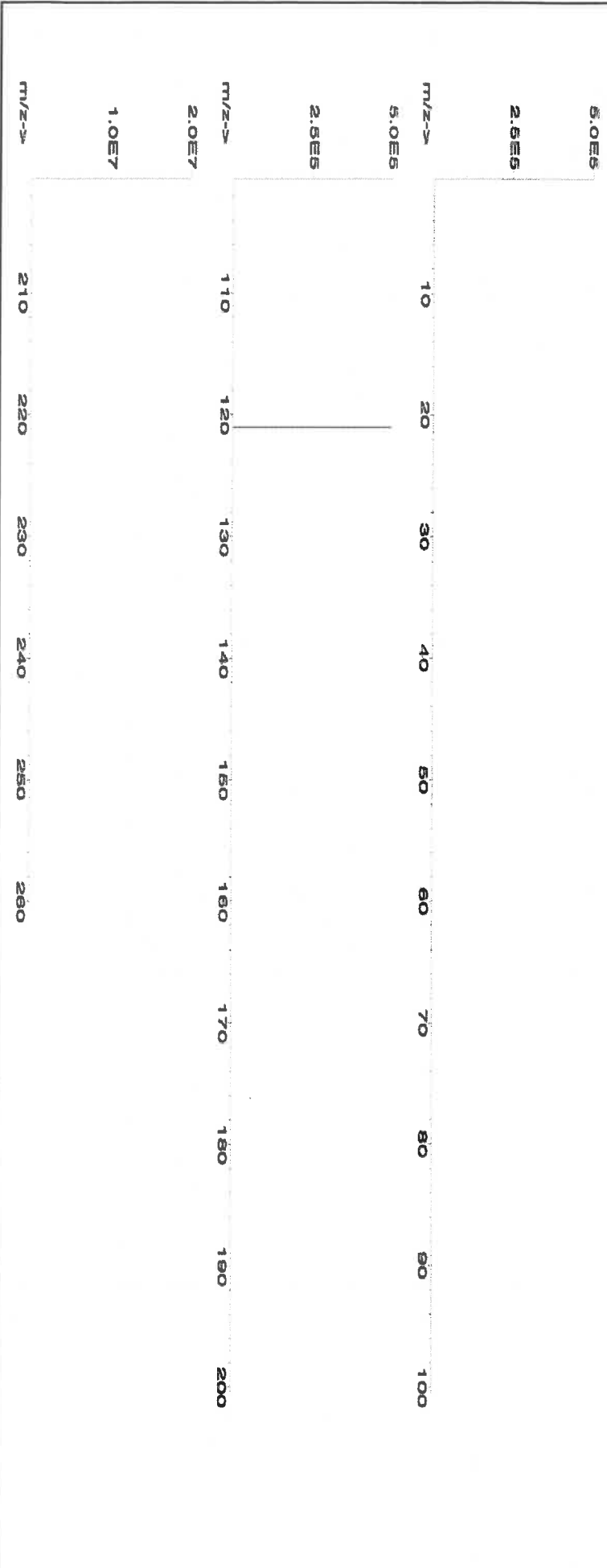
Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Renteria	120523

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

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).



M6030



CERTIFIED WEIGHT REPORT:

Part Number: **57047**
Lot Number: **122823**
Description: **Silver (Ag)**
Solvent: 24002546 Nitric Acid
Lot #

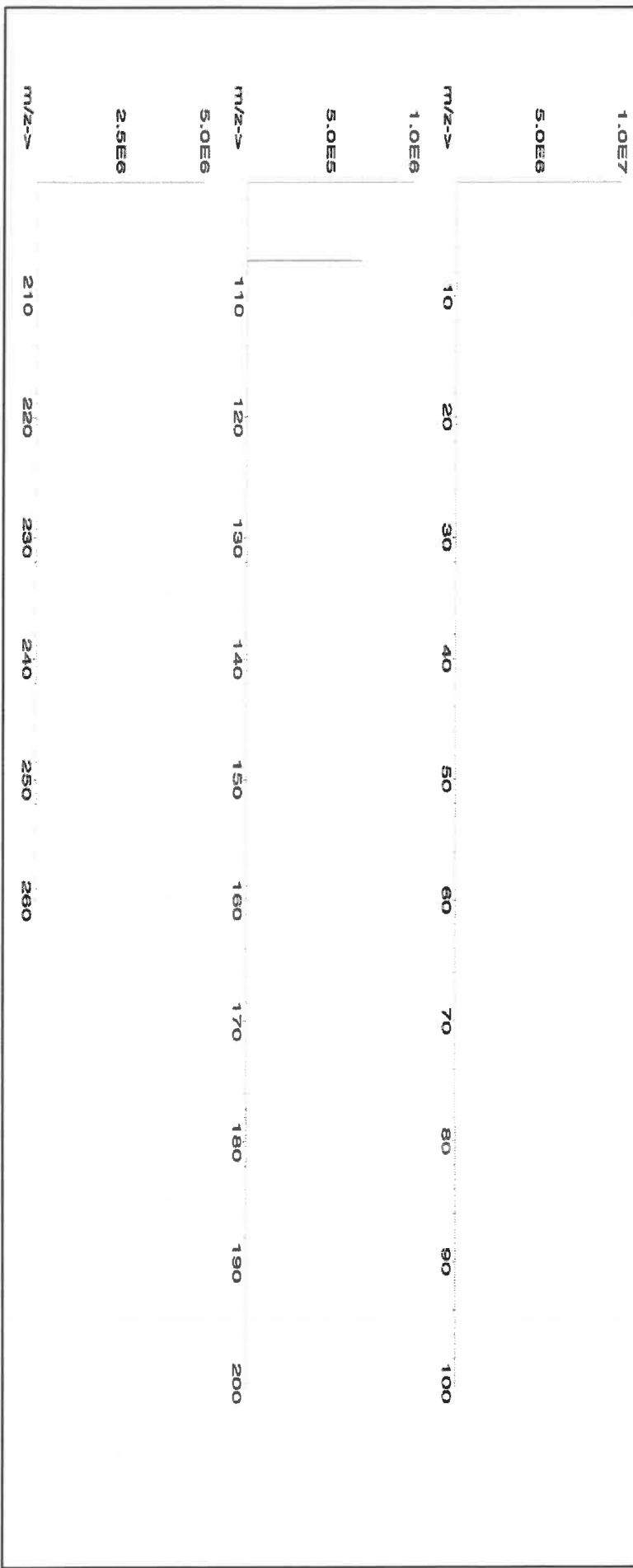
Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 4000.30
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan
Reviewed By:	Pedro L. Rentas
122823	

SDS Information									
Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)
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/mL
									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 meghm 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:

R: 03/16/23 MS473 MS474 MS475 MS476

Lot #

Part Number:

56138

Solvent: 20510011

Nitric Acid

Lot Number:

082922

Description:

Strontium (Sr)

2% 20.0

Nitric Acid

Expiration Date:

082925

(mL)

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

10000

NIST Test Number:

6UTB

Weight shown below was diluted to (mL):

1000.12

0.058 Balance Uncertainty
Flask Uncertainty

Formulated By:	Lawrence Barry
082922	
Reviewed By:	Pedro L. Renteria
082922	

SDS Information

Compound

RM#

Lot

Number

Nominal

Purity

Uncertainty

Assay

Target

Actual

Actual

Conc. (µg/mL)

Expanded

Uncertainty

CAS#

OSHA PEL (TWA)

LD50

NIST

SRM

or-rat >2000mg/kg

3153a

20.0

10042-76-9

NA

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

1. Strontium nitrate (Sr)

IN017 SR2022018A1

10000

99.997

0.10

41.2

24.2756

24.2758

10000.1

20.0

10042-76-9

NA

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

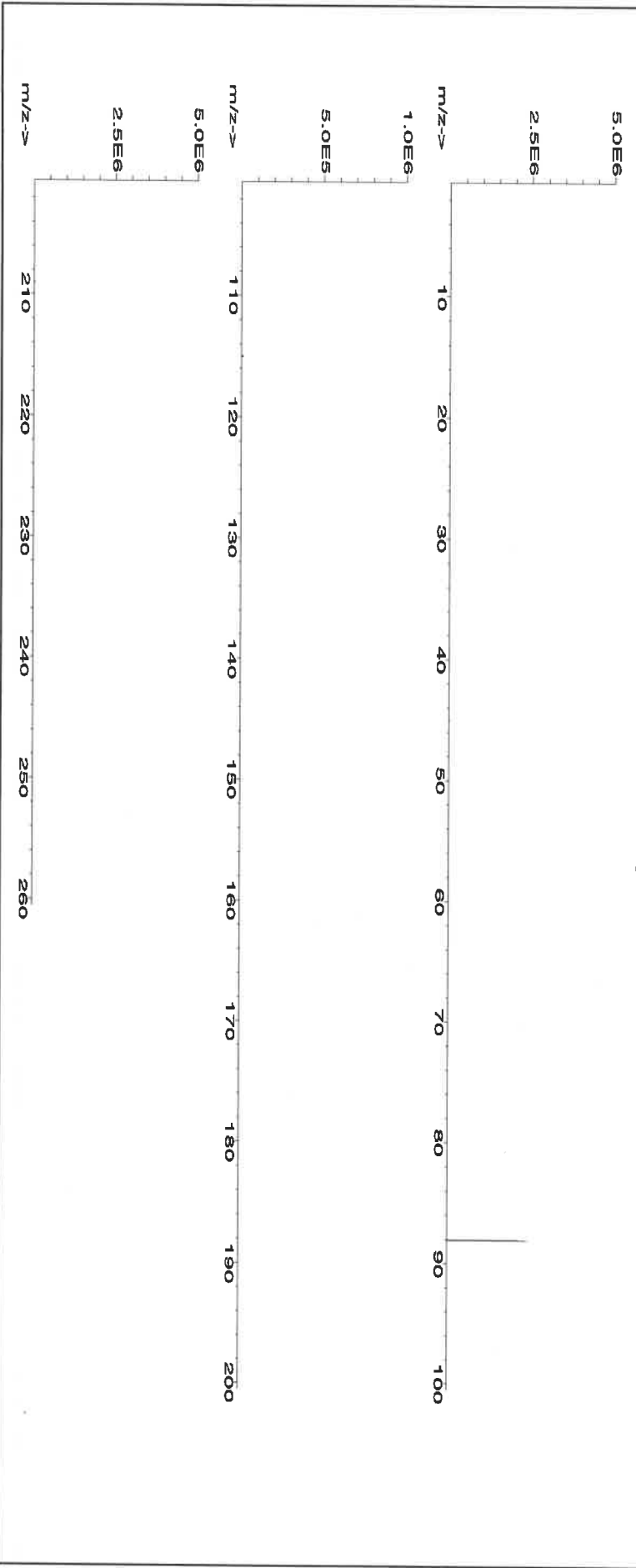
or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

[1] Spectrum No. 1 [14.495 sec]:56138.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (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	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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: 57081
Lot Number: 062724
Description: Thallium (TI)

Lot #

Solvent: 24002546 Nitric Acid

2% 40.0 (mL) Nitric Acid

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

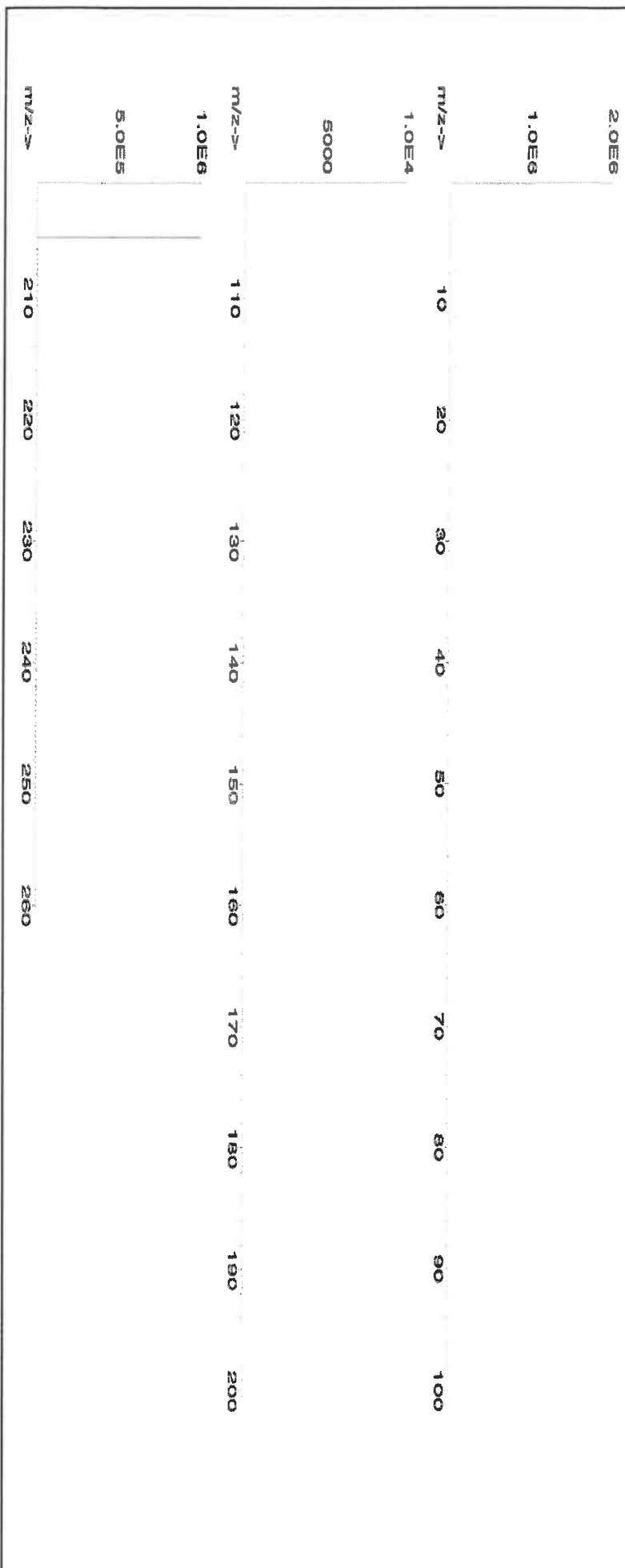
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	062724
Reviewed By:	<i>Pedro L. Renteria</i>
	Pedro L. Renteria
	062724

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

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:

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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- * 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**

Volume shown below was diluted to (mL): **2000.3**
0.06 Balance Uncertainty
0.06 Flask Uncertainty

Volume shown below was diluted to (mL): **2000.3**

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. Ammonium metavanadate (V)		58123	021224	0.1000	200.0	0.084	1000	10000.3	1000.0	2.2	7803-55-6	0.05 mg/m3	or-at 58.1mg/kg	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-->	210	220	230	240	250	260				



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
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<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
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<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
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ti	<0.02
														Tb	<0.02
														Te	<0.02
														Tl	<0.02
														Th	<0.02
														Tm	<0.02
														Sn	<0.02
														Ti	<0.02
														W	<0.02
														U	<0.02
														V	T
														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:

- * 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).

SOP ID : M200.8-Trace Elements-22, MSFAM01.1-Metals ICPMS-2

SDG No : E29Z2

Matrix : WATER

Pipette ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HOT BLOCK #1 2. N/A

Start Digest Date: 11/21/2024 **Time :** 10:00 **Temp :** 95 °C

End Digest Date: 11/21/2024 **Time :** 12:10 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: *[Signature]*

Supervisor Signature: *[Signature]*

Temp : 1. 95°C 2. N/A

Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	0.50	MP83045
Spike Sol. B	0.50	MP83047
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	1.00	MP83122
1:1 HCL	0.50	MP83105
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK #1 Cell # 50: 95 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/21/24 13:00	<i>[Signature]</i> Met Dig	<i>[Signature]</i> Metals Lab
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
P4878-01	E29Z2	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	22
P4878-02	E29Z4	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	23
P4878-03	E29Z6	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	24
P4878-04	E29Z8	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	25
P4878-05	E2A14	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	26
P4878-06	E2A00	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	27
P4878-07	E2A02	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	28
P4878-08	E2A02D	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	29
P4878-09	E2A02S	<2	50	50	Colorless	Colorless	Clear	Clear	MP83047	30
P4878-10	E2A04	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	31
P4878-11	E2A06	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	32
P4878-12	E2A08	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	33
P4878-13	E2A10	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	34
PB165158BL	PBW158	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	35
PB165158BS	LCS158	<2	50	50	Colorless	Colorless	Clear	Clear	MP83045	36

Instrument ID: P7

Daily Analysis Runlog For Sequence/QC Batch ID # LB133596

Review By	Sarabjit Jaswal	Review On	11/25/2024 6:18:46 AM
Supervise By	Mohan Bera	Supervise On	11/25/2024 6:19:44 AM
STD. NAME	STD REF.#		
ICAL Standard	MP83014,MP83039,MP83038,MP83036,MP83034,MP83035,MP83033,MP83032,MP83016		
ICV Standard	MP83041		
CCV Standard	MP83042		
ICSA Standard	MP83043,MP83044		
CRI Standard			
LCS Standard			
Chk Standard	MP83050,MP83049		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	TUNE	TUNE001	TUNE	11/22/24 12:48		Jaswal	OK
2	S00	S0	CAL1	11/22/24 13:25		Jaswal	OK
3	S02	S02	CAL3	11/22/24 13:32		Jaswal	OK
4	S03	S03	CAL4	11/22/24 13:35		Jaswal	OK
5	S04	S04	CAL5	11/22/24 13:38		Jaswal	OK
6	S05	S05	CAL6	11/22/24 13:41		Jaswal	OK
7	S06	S06	CAL7	11/22/24 13:44		Jaswal	OK
8	S07	S07	CAL8	11/22/24 13:46		Jaswal	OK
9	S08	S08	CAL9	11/22/24 13:49		Jaswal	OK
10	ICV001	ICV001	ICV	11/22/24 14:01	Inst. paused for calibration review	Jaswal	OK
11	ICB001	ICB001	ICB	11/22/24 14:05		Jaswal	OK
12	ICSA001	ICSA001	ICSA	11/22/24 14:08		Jaswal	OK
13	ICSAB001	ICSAB001	ICSAB	11/22/24 14:11		Jaswal	OK
14	CCV001	CCV001	CCV	11/22/24 14:14		Jaswal	OK
15	CCB001	CCB001	CCB	11/22/24 14:17		Jaswal	OK
16	PB165157BL	PBW157	MB	11/22/24 14:20		Jaswal	OK
17	PB165157BS	LCS157	LCS	11/22/24 14:23		Jaswal	OK
18	PB165158BL	PBW158	MB	11/22/24 14:26		Jaswal	OK

Instrument ID: P7

Daily Analysis Runlog For Sequence/QC Batch ID # LB133596

Review By	Sarabjit Jaswal	Review On	11/25/2024 6:18:46 AM
Supervise By	Mohan Bera	Supervise On	11/25/2024 6:19:44 AM
STD. NAME	STD REF.#		
ICAL Standard	MP83014,MP83039,MP83038,MP83036,MP83034,MP83035,MP83033,MP83032,MP83016		
ICV Standard	MP83041		
CCV Standard	MP83042		
ICSA Standard	MP83043,MP83044		
CRI Standard			
LCS Standard			
Chk Standard	MP83050,MP83049		

19	PB165158BS	LCS158	LCS	11/22/24 14:29		Jaswal	OK
20	P4879-22	E2A11	SAM	11/22/24 14:33		Jaswal	OK
21	P4877-01	E29Z1	SAM	11/22/24 14:36		Jaswal	OK
22	P4877-02	E29Z3	SAM	11/22/24 14:39		Jaswal	OK
23	P4877-03	E29Z5	SAM	11/22/24 14:42		Jaswal	OK
24	P4877-04	E29Z7	SAM	11/22/24 14:45		Jaswal	OK
25	P4877-05	E2A13	SAM	11/22/24 14:49		Jaswal	OK
26	P4877-06	E2A19	SAM	11/22/24 14:52		Jaswal	OK
27	P4877-07	E2A22	SAM	11/22/24 14:55		Jaswal	OK
28	P4877-08	E2A23	SAM	11/22/24 14:58		Jaswal	OK
29	P4877-09	E29Z9	SAM	11/22/24 15:01		Jaswal	OK
30	P4877-10	E2A01	SAM	11/22/24 15:05		Jaswal	OK
31	P4877-11RE	E2A01D	DUP	11/22/24 15:08	Not Use	Jaswal	Not Ok
32	P4877-10L	E2A01L	SD	11/22/24 15:11		Jaswal	OK
33	P4877-10RE	E2A01	SAM	11/22/24 15:14	Not Use	Jaswal	Not Ok
34	P4877-12	E2A01S	MS	11/22/24 15:21		Jaswal	OK
35	P4877-11	E2A01D	DUP	11/22/24 15:24		Jaswal	OK
36	P4877-13	E2A03	SAM	11/22/24 15:27		Jaswal	OK
37	P4877-14	E2A05	SAM	11/22/24 15:31		Jaswal	OK
38	P4877-15	E2A07	SAM	11/22/24 15:34		Jaswal	OK

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ICV Standard	MP83041		
CCV Standard	MP83042		
ICSA Standard	MP83043,MP83044		
CRI Standard			
LCS Standard			
Chk Standard	MP83050,MP83049		

39	P4877-16	E2A09	SAM	11/22/24 15:37		Jaswal	OK
40	P4877-17	E2A20	SAM	11/22/24 15:40		Jaswal	OK
41	P4877-18	E2A24	SAM	11/22/24 15:43		Jaswal	OK
42	CCV002	CCV002	CCV	11/22/24 15:50		Jaswal	OK
43	CCB002	CCB002	CCB	11/22/24 15:53		Jaswal	OK
44	P4878-01	E29Z2	SAM	11/22/24 15:56		Jaswal	OK
45	P4878-02	E29Z4	SAM	11/22/24 15:59		Jaswal	OK
46	P4878-03	E29Z6	SAM	11/22/24 16:02		Jaswal	OK
47	P4878-04	E29Z8	SAM	11/22/24 16:05		Jaswal	OK
48	P4878-05	E2A14	SAM	11/22/24 16:08		Jaswal	OK
49	P4878-06	E2A00	SAM	11/22/24 16:12		Jaswal	OK
50	P4878-07	E2A02	SAM	11/22/24 16:15		Jaswal	OK
51	P4878-08	E2A02D	DUP	11/22/24 16:18		Jaswal	OK
52	P4878-07L	E2A02L	SD	11/22/24 16:21		Jaswal	OK
53	P4878-09	E2A02S	MS	11/22/24 16:24		Jaswal	OK
54	P4878-10	E2A04	SAM	11/22/24 16:27		Jaswal	OK
55	P4878-11	E2A06	SAM	11/22/24 16:30		Jaswal	OK
56	P4878-12	E2A08	SAM	11/22/24 16:33		Jaswal	OK
57	P4878-13	E2A10	SAM	11/22/24 16:37		Jaswal	OK
58	CCV003	CCV003	CCV	11/22/24 16:43		Jaswal	OK

Instrument ID: P7

Daily Analysis Runlog For Sequence/QC Batch ID # LB133596

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ICV Standard	MP83041		
CCV Standard	MP83042		
ICSA Standard	MP83043,MP83044		
CRI Standard			
LCS Standard			
Chk Standard	MP83050,MP83049		

59	CCB003	CCB003	CCB	11/22/24 16:46		Jaswal	OK
60	P4877-19	E29S9	SAM	11/22/24 16:49		Jaswal	OK
61	CCV004	CCV004	CCV	11/22/24 16:52		Jaswal	OK
62	CCB004	CCB004	CCB	11/22/24 16:55		Jaswal	OK