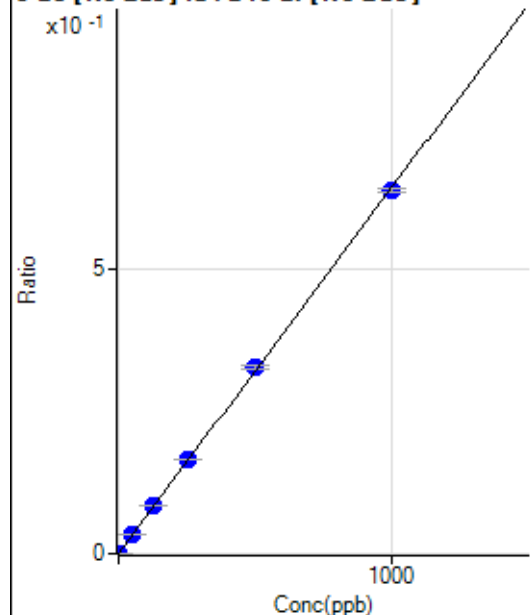


Calibration for 006CAL.S.d

Batch Folder: D:\ICP-MS Data\P7092719-MS.b\
 Analysis File: P7092719-MS.batch.bin
 DA Date-Time: 2019-09-30 01:49:03
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-09-27 12:39:55
2	004CAL.S.d	S02	2019-09-27 12:43:31
3	005CAL.S.d	S03	2019-09-27 12:48:09
4	006CAL.S.d	S04	2019-09-27 12:52:18
5	007CAL.S.d	S05	2019-09-27 12:56:08
6	008CAL.S.d	S06	2019-09-27 12:59:57
7	009CAL.S.d	S07	2019-09-27 13:03:44
8	010CAL.S.d	S08	2019-09-27 13:07:29

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	92.22	0.0000	P	26.1
2	☐	1.000	1.038	2381.34	0.0007	P	3.0
3	☐	50.000	52.081	112264.23	0.0335	P	2.0
4	☐	125.000	131.020	264770.03	0.0844	P	0.6
5	☐	250.000	259.086	495611.47	0.1668	P	0.2
6	☐	500.000	510.153	946715.75	0.3284	P	1.4
7	☐	1000.000	991.795	1803561.29	0.6383	P	0.9
8	☐			281.12	0.0001	P	13.2

$$y = 6.4359\text{E-}004 * x + 2.6859\text{E-}005$$

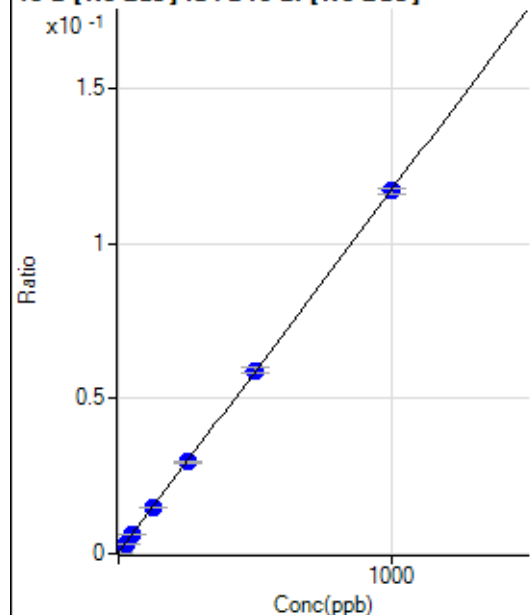
$$R = 0.9999$$

$$DL = 0.03262$$

$$BEC = 0.04173$$

Weight: <None>

Min Conc: 0

10 B [No Gas] ISTD:6 Li [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1044.52	0.0003	P	11.9
2	☐	25.000	23.894	10606.91	0.0031	P	2.6
3	☐	50.000	48.969	20155.70	0.0060	P	1.8
4	☐	125.000	125.059	46790.34	0.0149	P	2.7
5	☐	250.000	250.988	88000.58	0.0296	P	1.9
6	☐	500.000	503.656	170433.02	0.0591	P	2.4
7	☐	1000.000	997.997	330118.57	0.1168	P	1.4
8	☐			15864.40	0.0059	P	7.0

$$y = 1.1677\text{E-}004 * x + 3.0425\text{E-}004$$

$$R = 1.0000$$

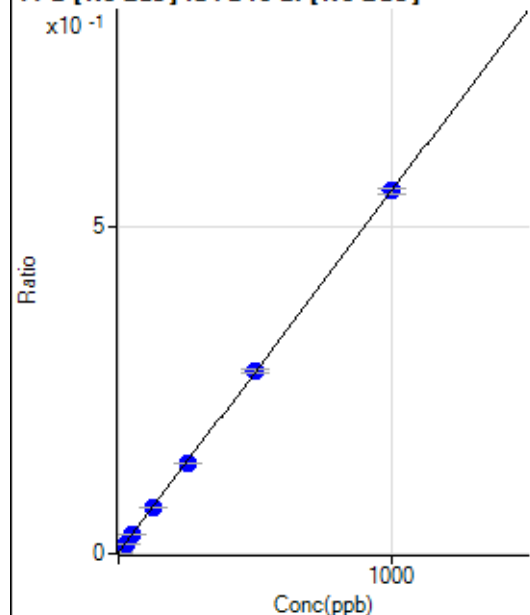
$$DL = 0.9269$$

$$BEC = 2.606$$

Weight: <None>

Min Conc: 0

11 B [No Gas] ISTD:6 Li [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	4937.09	0.0014	P	6.2
2	☐	25.000	23.154	48905.37	0.0143	P	2.7
3	☐	50.000	48.196	94191.36	0.0281	P	0.5
4	☐	125.000	124.090	220302.57	0.0702	P	2.8
5	☐	250.000	247.439	411704.66	0.1385	P	1.0
6	☐	500.000	501.706	805611.66	0.2794	P	2.0
7	☐	1000.000	1000.037	1569606.14	0.5555	P	1.5
8	☐			74945.25	0.0279	P	6.6

$$y = 5.5408\text{E-}004 * x + 0.0014$$

$$R = 1.0000$$

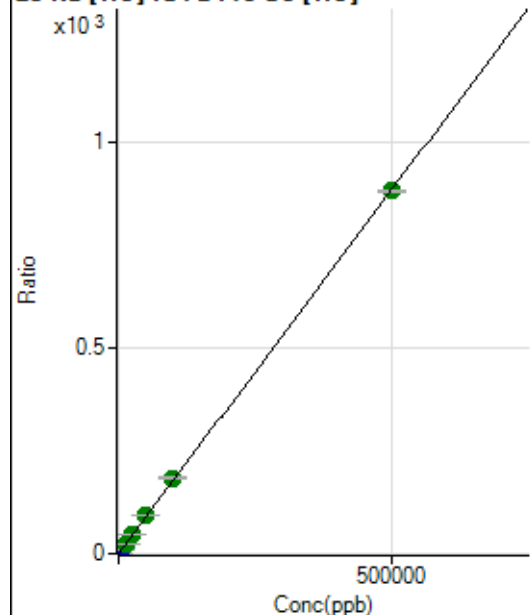
$$DL = 0.4825$$

$$BEC = 2.595$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	11196.29	0.0433	P	2.5
2	☐	500.000	507.761	241652.51	0.9408	P	0.9
3	☐	5000.000	5214.262	2262779.80	9.2592	P	1.2
4	☐	12500.000	13192.241	5423412.49	23.3596	A	1.3
5	☐	25000.000	26417.050	10478763.86	46.7335	A	1.6
6	☐	50000.000	52363.355	20223010.18	92.5917	A	0.7
7	☐	100000.00	104234.32	39305513.03	184.2699	A	0.4
8	☐	500000.00	498826.49	188349337.5	881.6828	A	0.2

$$y = 0.0018 * x + 0.0433$$

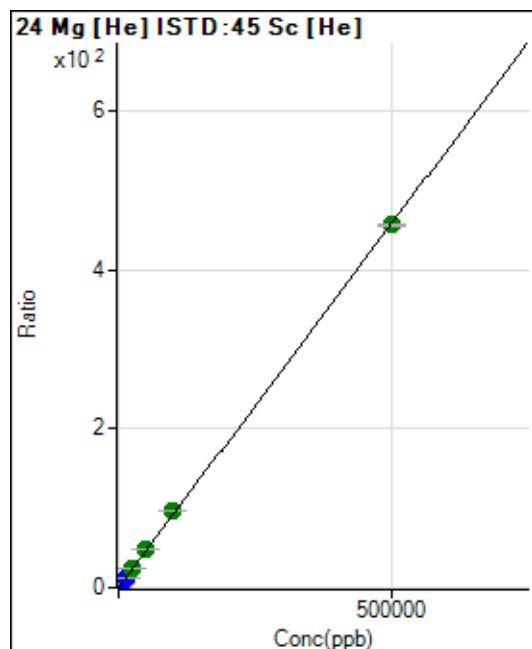
$$R = 1.0000$$

$$DL = 1.855$$

$$BEC = 24.51$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	252.79	0.0010	P	21.2
2	☐	500.000	535.715	126336.93	0.4918	P	0.3
3	☐	5000.000	5359.836	1200435.20	4.9120	P	0.6
4	☐	12500.000	13489.156	2869741.65	12.3605	P	1.3
5	☐	25000.000	26886.435	5523886.02	24.6359	A	1.6
6	☐	50000.000	53386.236	10684045.20	48.9165	A	0.5
7	☐	100000.00	105314.07	20582857.93	96.4958	A	0.5
8	☐	500000.00	498475.87	97571544.54	456.7331	A	0.4

$$y = 9.1626\text{E-}004 * x + 9.7813\text{E-}004$$

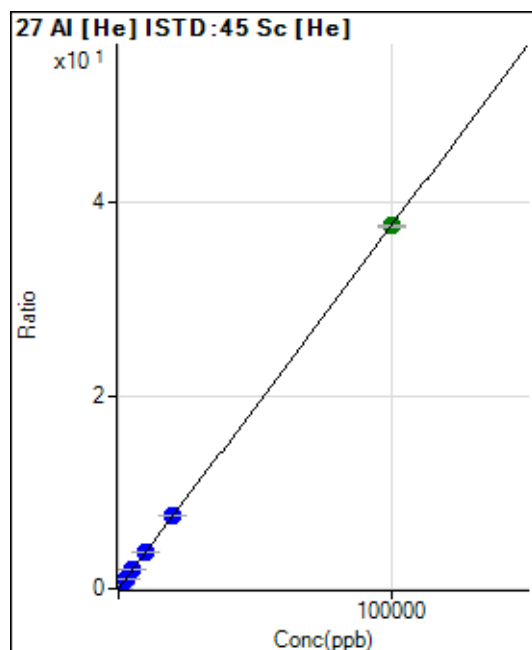
$$R = 0.9999$$

$$DL = 0.6792$$

$$BEC = 1.068$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	25.00	0.0001	P	66.8
2	☐	20.000	19.838	1941.89	0.0076	P	2.8
3	☐	1000.000	1026.618	94402.87	0.3863	P	1.7
4	☐	2500.000	2559.878	223603.18	0.9631	P	1.7
5	☐	5000.000	5165.672	435759.09	1.9434	P	1.7
6	☐	10000.000	10201.157	838191.99	3.8377	P	0.8
7	☐	20000.000	20141.909	1616224.29	7.5773	P	1.1
8	☐	100000.00	99941.456	8031696.36	37.5972	A	0.2

$$y = 3.7619\text{E-}004 * x + 9.6883\text{E-}005$$

$$R = 1.0000$$

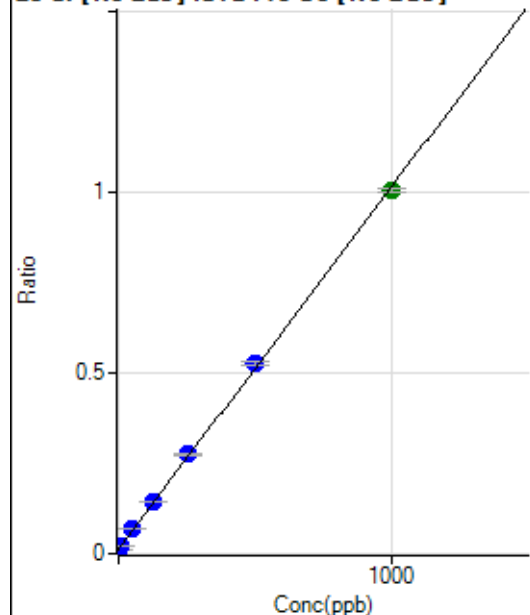
$$DL = 0.5159$$

$$BEC = 0.2575$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	83465.63	0.0125	P	0.4
2	☐	10.000	9.146	141359.65	0.0217	P	1.2
3	☐	50.000	57.875	445143.25	0.0705	P	0.3
4	☐	125.000	131.756	866268.79	0.1445	P	1.6
5	☐	250.000	262.444	1564374.30	0.2754	P	1.5
6	☐	500.000	513.016	2916137.89	0.5264	P	2.4
7	☐	1000.000	989.151	5509784.24	1.0033	A	1.1
8	☐			209229.39	0.0393	P	0.6

$$y = 0.0010 * x + 0.0125$$

$$R = 0.9998$$

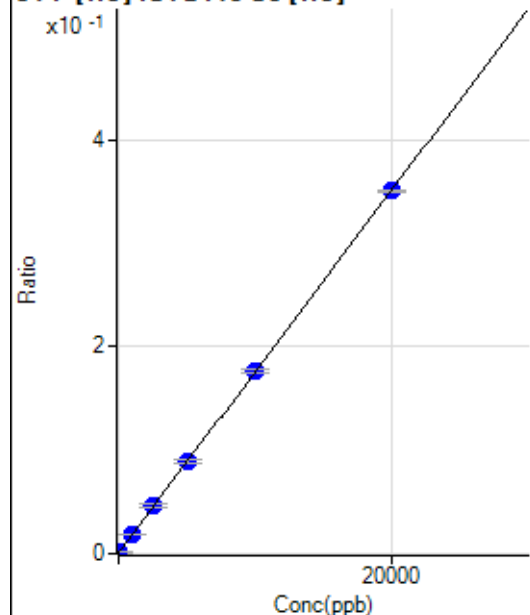
$$DL = 0.162$$

$$BEC = 12.48$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	-22.872	69.45	0.0003	P	37.1
2	☐	0.000	22.872	275.01	0.0011	P	12.1
3	☐	1000.000	1022.903	4545.34	0.0186	P	3.3
4	☐	2500.000	2625.007	10834.93	0.0467	P	6.2
5	☐	5000.000	5046.954	19980.74	0.0891	P	3.7
6	☐	10000.000	9999.476	38414.46	0.1759	P	2.0
7	☐	20000.000	19971.753	74793.65	0.3506	P	0.8
8	☐			94.45	0.0004	P	67.7

$$y = 1.7523E-005 * x + 6.6985E-004$$

$$R = 1.0000$$

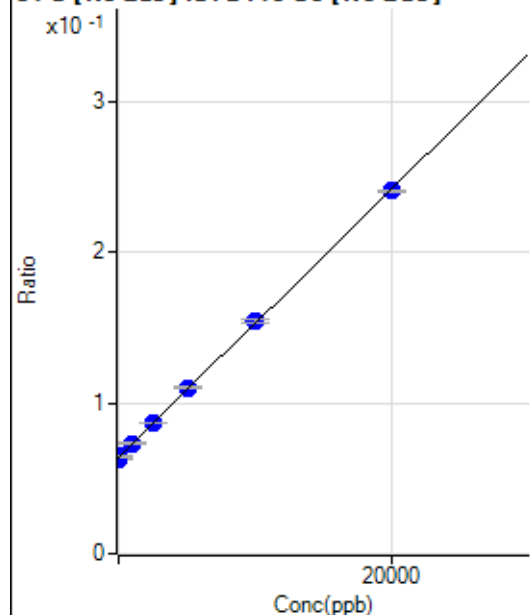
$$DL = 19.67$$

$$BEC = 38.23$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	-97.299	419489.21	0.0628	P	0.6
2	☐	0.000	97.299	421405.65	0.0646	P	0.9
3	☐	1000.000	1058.709	462159.25	0.0732	P	1.4
4	☐	2500.000	2613.834	522140.13	0.0871	P	0.7
5	☐	5000.000	5190.677	625544.45	0.1101	P	1.1
6	☐	10000.000	10212.481	858836.77	0.1550	P	1.4
7	☐	20000.000	19828.925	1323402.09	0.2410	P	0.3
8	☐			359987.74	0.0677	P	0.2

$$y = 8.9403\text{E-}006 * x + 0.0637$$

R = 0.9998

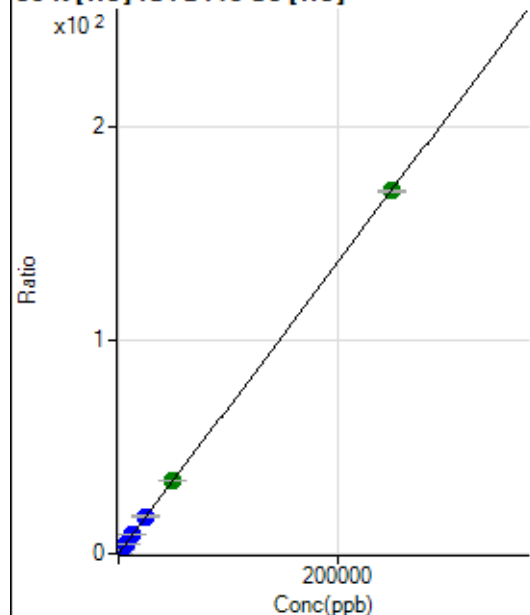
DL = 160.2

BEC = 7127

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	11599.47	0.0449	P	2.7
2	☐	500.000	511.534	100817.10	0.3925	P	0.7
3	☐	2500.000	2577.552	439007.41	1.7964	P	1.1
4	☐	6250.000	6461.141	1029786.11	4.4354	P	1.1
5	☐	12500.000	12948.010	1983056.49	8.8434	P	0.2
6	☐	25000.000	25716.783	3826633.98	17.5201	P	0.4
7	☐	50000.000	50684.809	7356148.77	34.4864	A	0.2
8	☐	250000.00	249762.88	36266151.16	169.7648	A	0.3

$$y = 6.7952\text{E-}004 * x + 0.0449$$

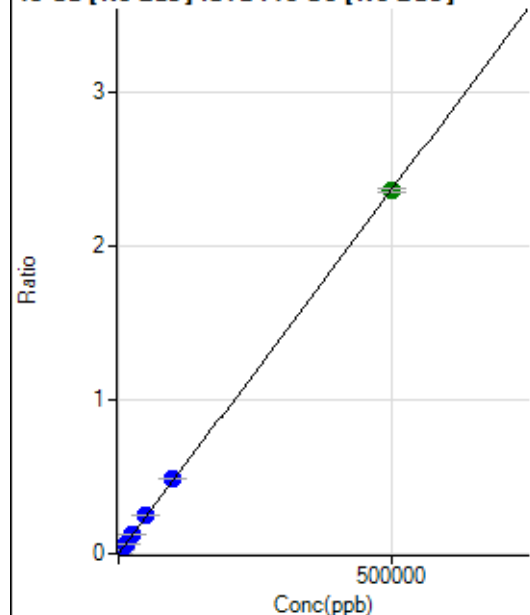
R = 1.0000

DL = 5.318

BEC = 66.06

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	80.56	0.0000	P	66.6
2	☐	500.000	481.278	14905.24	0.0023	P	1.1
3	☐	5000.000	5345.811	159476.75	0.0253	P	1.7
4	☐	12500.000	13288.301	376277.21	0.0628	P	0.4
5	☐	25000.000	26343.850	706656.19	0.1244	P	0.6
6	☐	50000.000	52616.560	1376427.10	0.2484	P	1.7
7	☐	100000.00	103923.08	2694626.25	0.4907	P	0.5
8	☐	500000.00	498863.38	12529534.57	2.3554	A	0.9

$$y = 4.7216\text{E-}006 * x + 1.2075\text{E-}005$$

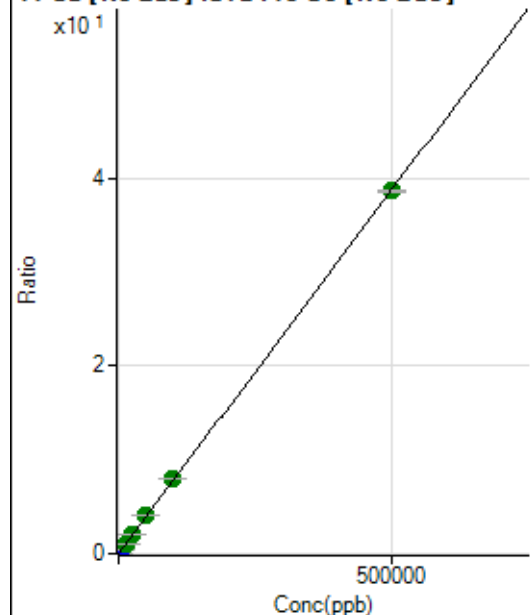
$$R = 1.0000$$

$$DL = 5.108$$

$$BEC = 2.557$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	5131.66	0.0008	P	5.1
2	☐	500.000	493.764	254837.68	0.0391	P	0.2
3	☐	5000.000	5272.661	2586833.78	0.4096	P	1.9
4	☐	12500.000	13223.222	6152857.77	1.0261	A	0.4
5	☐	25000.000	26291.862	11585740.19	2.0395	A	0.6
6	☐	50000.000	52464.178	22543087.83	4.0690	A	1.5
7	☐	100000.00	103491.45	44073153.76	8.0257	A	0.4
8	☐	500000.00	498969.89	205822836.5	38.6921	A	0.4

$$y = 7.7542\text{E-}005 * x + 7.6884\text{E-}004$$

$$R = 1.0000$$

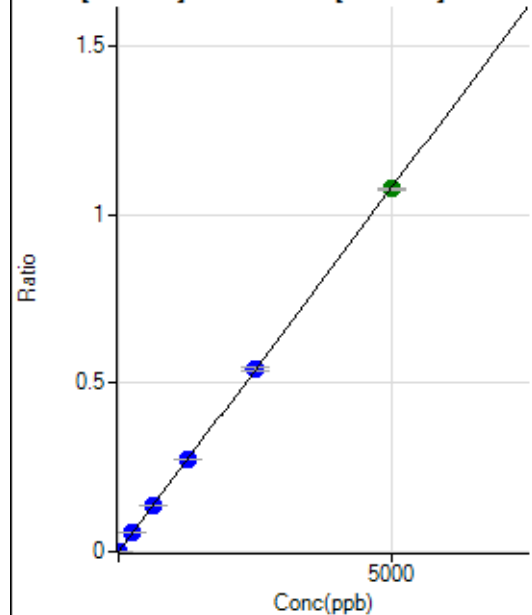
$$DL = 1.525$$

$$BEC = 9.915$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	91.67	0.0000	P	24.2
2	☐	5.000	5.092	7263.20	0.0011	P	0.9
3	☐	250.000	253.479	345750.40	0.0547	P	1.3
4	☐	625.000	636.492	824158.96	0.1375	P	0.6
5	☐	1250.000	1266.741	1553922.94	0.2735	P	0.3
6	☐	2500.000	2514.410	3008073.22	0.5430	P	1.5
7	☐	5000.000	4986.999	5913531.86	1.0769	A	0.5
8	☐			1525.14	0.0003	P	10.6

$$y = 2.1593\text{E-}004 * x + 1.3736\text{E-}005$$

$$R = 1.0000$$

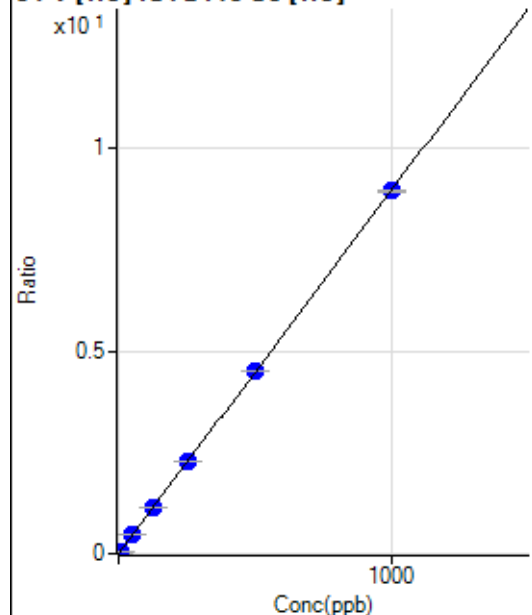
$$DL = 0.04616$$

$$BEC = 0.06361$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2.22	0.0000	P	86.6
2	☐	5.000	5.154	11880.51	0.0463	P	1.3
3	☐	50.000	50.731	111233.20	0.4552	P	1.4
4	☐	125.000	126.921	264390.51	1.1387	P	0.7
5	☐	250.000	252.447	507864.31	2.2649	P	0.7
6	☐	500.000	501.765	983243.95	4.5017	P	0.4
7	☐	1000.000	998.228	1910312.80	8.9559	P	0.7
8	☐			500.02	0.0023	P	9.6

$$y = 0.0090 * x + 8.5850\text{E-}006$$

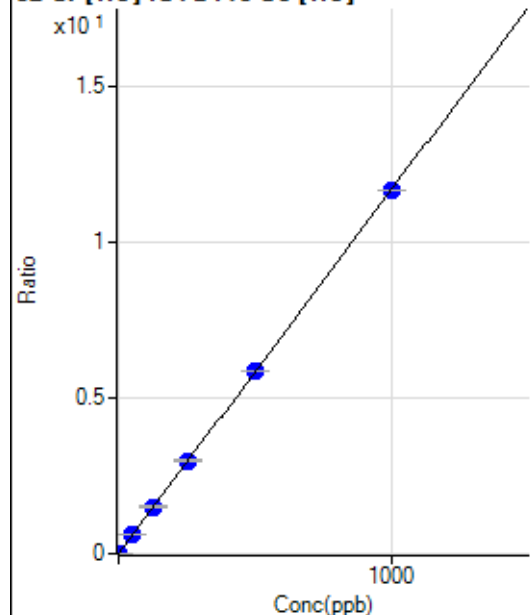
$$R = 1.0000$$

$$DL = 0.002486$$

$$BEC = 0.0009569$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	465.57	0.0018	P	2.7
2	☐	2.000	1.964	6369.24	0.0248	P	1.5
3	☐	50.000	51.351	147361.95	0.6030	P	0.9
4	☐	125.000	128.739	350355.76	1.5090	P	1.0
5	☐	250.000	255.413	670880.63	2.9920	P	1.4
6	☐	500.000	503.339	1287463.86	5.8946	P	0.3
7	☐	1000.000	996.443	2488766.80	11.6676	P	0.2
8	☐			78029.45	0.3653	P	1.9

$$y = 0.0117 * x + 0.0018$$

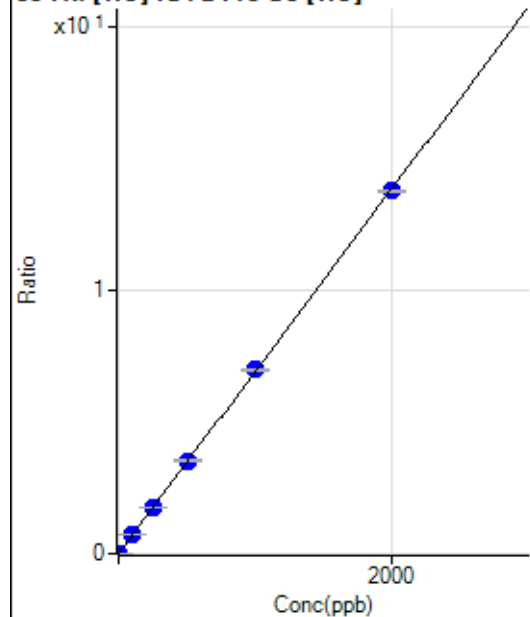
$$R = 1.0000$$

$$DL = 0.01241$$

$$BEC = 0.1539$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	31.11	0.0001	P	22.1
2	☐	1.000	1.023	1847.92	0.0072	P	4.3
3	☐	100.000	102.489	173178.95	0.7086	P	0.9
4	☐	250.000	256.887	412340.58	1.7760	P	1.1
5	☐	500.000	510.208	790894.10	3.5272	P	1.0
6	☐	1000.000	1010.377	1525586.33	6.9849	P	0.5
7	☐	2000.000	1991.274	2936278.05	13.7658	P	0.7
8	☐			10058.03	0.0471	P	1.7

$$y = 0.0069 * x + 1.2033E-004$$

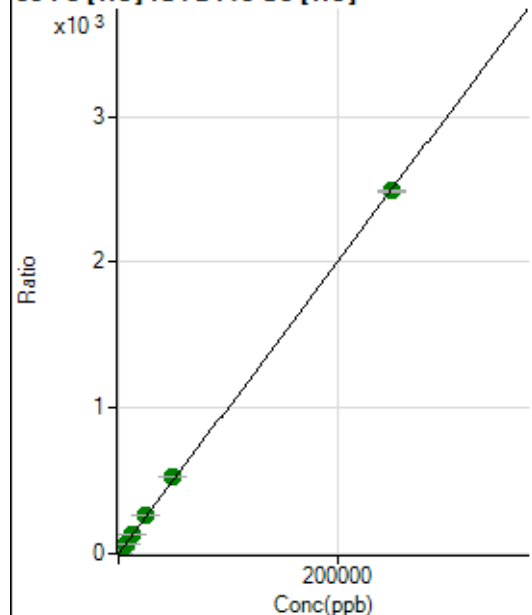
$$R = 1.0000$$

$$DL = 0.01154$$

$$BEC = 0.01741$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1757.57	0.0068	P	8.1
2	☐	50.000	55.039	142985.06	0.5567	P	1.3
3	☐	2500.000	2692.495	6575262.12	26.9053	A	0.9
4	☐	6250.000	6769.722	15703507.41	67.6374	A	1.2
5	☐	12500.000	13477.396	30191797.90	134.6481	A	1.0
6	☐	25000.000	26564.883	57964520.28	265.3942	A	0.8
7	☐	50000.000	52435.585	111738209.9	523.8466	A	0.5
8	☐	250000.00	249292.60	532020119.3	2,490.479	A	0.3

$$y = 0.0100 * x + 0.0068$$

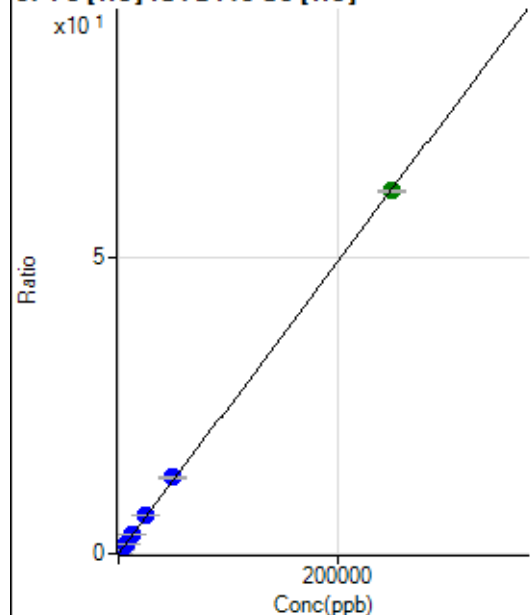
$$R = 0.9999$$

$$DL = 0.1655$$

$$BEC = 0.6809$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	70.37	0.0003	P	37.7
2	☐	50.000	55.072	3550.53	0.0138	P	3.0
3	☐	2500.000	2698.115	162307.48	0.6641	P	0.9
4	☐	6250.000	6817.961	389557.95	1.6778	P	0.9
5	☐	12500.000	13505.899	745208.24	3.3234	P	0.9
6	☐	25000.000	26578.012	1428385.42	6.5398	P	0.8
7	☐	50000.000	52326.666	2746309.70	12.8753	P	0.7
8	☐	250000.00	249310.38	13104072.75	61.3432	A	0.5

$$y = 2.4605E-004 * x + 2.7250E-004$$

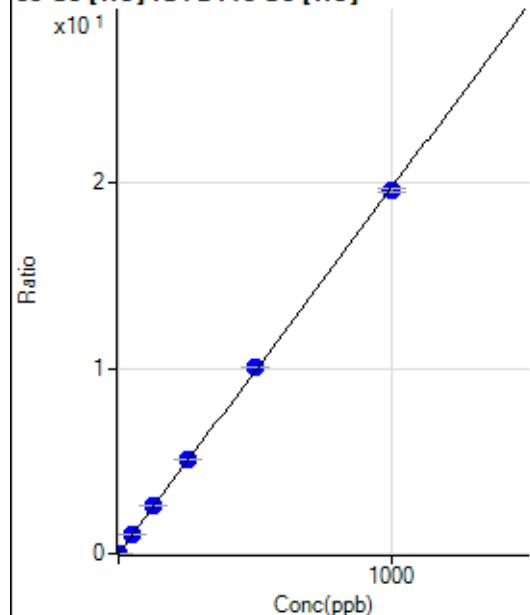
$$R = 0.9999$$

$$DL = 1.252$$

$$BEC = 1.107$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	56.67	0.0002	P	0.5
2	☐	1.000	1.028	5265.47	0.0205	P	0.5
3	☐	50.000	52.475	253110.17	1.0357	P	0.8
4	☐	125.000	131.265	601434.14	2.5904	P	1.1
5	☐	250.000	258.944	1145792.22	5.1099	P	0.9
6	☐	500.000	509.841	2197463.59	10.0608	P	0.8
7	☐	1000.000	991.936	4175065.32	19.5738	P	1.1
8	☐			49047.35	0.2296	P	0.6

$$y = 0.0197 * x + 2.1928E-004$$

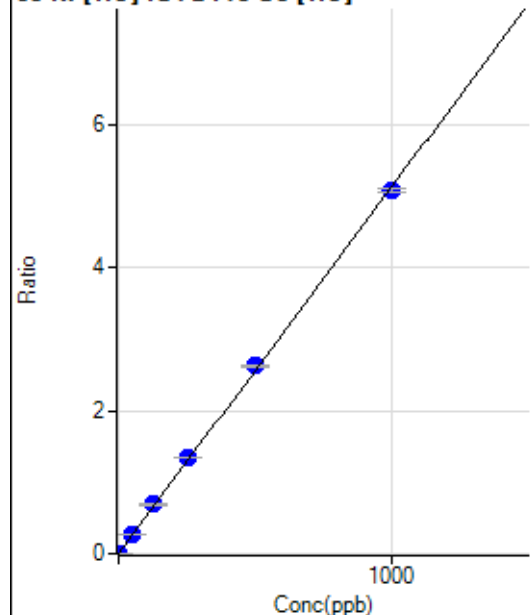
$$R = 0.9999$$

$$DL = 0.0001711$$

$$BEC = 0.01111$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	136.67	0.0005	P	19.0
2	☐	1.000	1.113	1603.45	0.0062	P	3.7
3	☐	50.000	54.034	67908.63	0.2779	P	0.4
4	☐	125.000	133.939	159733.18	0.6880	P	1.2
5	☐	250.000	261.409	300976.06	1.3422	P	0.6
6	☐	500.000	511.829	573897.48	2.6276	P	0.7
7	☐	1000.000	989.914	1083862.47	5.0814	P	1.0
8	☐			31723.36	0.1485	P	0.9

$$y = 0.0051 * x + 5.2854E-004$$

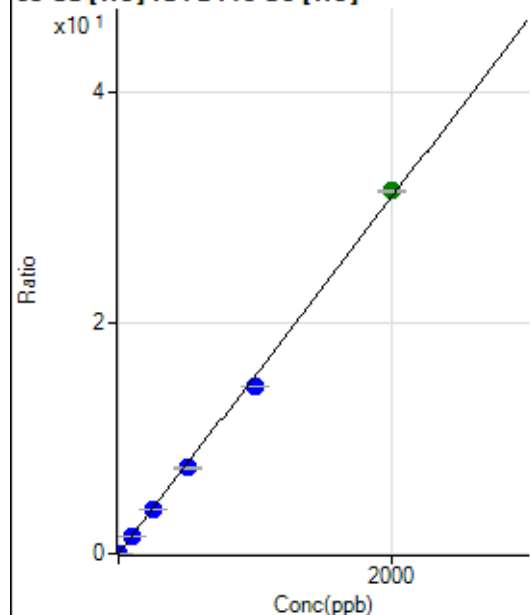
$$R = 0.9998$$

$$DL = 0.05856$$

$$BEC = 0.103$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1166.73	0.0045	P	3.6
2	☐	2.000	1.926	8787.22	0.0342	P	2.3
3	☐	100.000	98.830	373548.21	1.5284	P	0.4
4	☐	250.000	245.650	880497.35	3.7923	P	0.9
5	☐	500.000	481.906	1667211.59	7.4353	P	1.0
6	☐	1000.000	937.334	3157775.93	14.4578	P	0.8
7	☐	2000.000	2036.459	6698891.36	31.4058	A	0.8
8	☐			11106.58	0.0520	P	1.4

$$y = 0.0154 * x + 0.0045$$

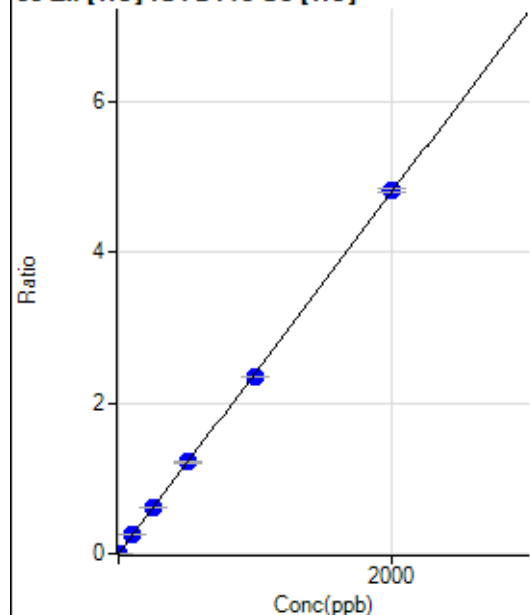
$$R = 0.9992$$

$$DL = 0.03174$$

$$BEC = 0.2928$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	282.23	0.0011	P	7.4
2	☐	2.000	2.118	1584.56	0.0062	P	4.7
3	☐	100.000	105.312	61948.68	0.2535	P	2.2
4	☐	250.000	258.666	144196.97	0.6211	P	1.1
5	☐	500.000	505.688	272027.28	1.2131	P	0.6
6	☐	1000.000	978.229	512342.60	2.3457	P	0.8
7	☐	2000.000	2008.114	1026863.80	4.8142	P	1.1
8	☐			12306.44	0.0576	P	1.6

$$y = 0.0024 * x + 0.0011$$

$$R = 0.9999$$

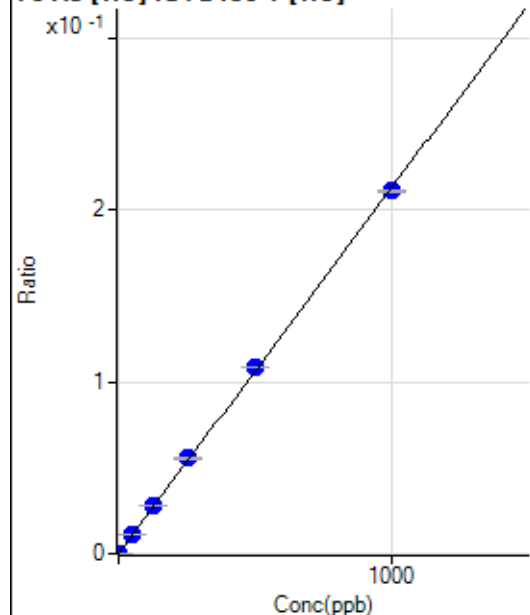
$$DL = 0.1016$$

$$BEC = 0.4555$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	4.94	0.0000	P	43.3
2	☐	1.000	1.059	320.99	0.0002	P	11.6
3	☐	50.000	52.560	14918.22	0.0112	P	1.3
4	☐	125.000	129.866	35094.13	0.0277	P	0.5
5	☐	250.000	260.901	67760.48	0.0556	P	1.0
6	☐	500.000	508.952	129411.36	0.1084	P	0.3
7	☐	1000.000	992.062	247934.99	0.2113	P	0.3
8	☐			350.62	0.0003	P	11.7

$$y = 2.1302\text{E-}004 * x + 3.5298\text{E-}006$$

$$R = 0.9999$$

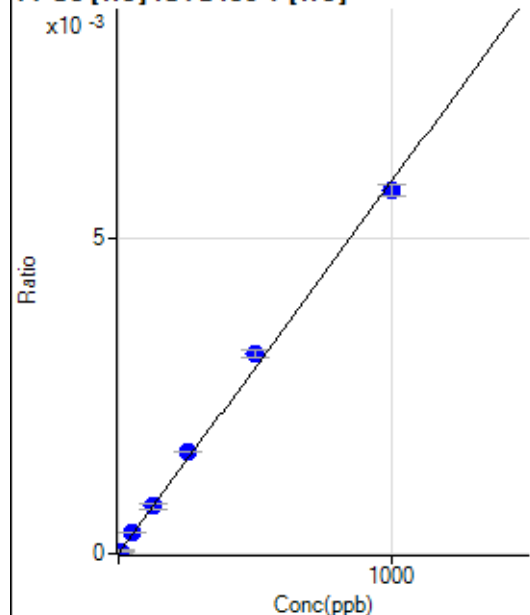
$$DL = 0.02152$$

$$BEC = 0.01657$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.2
2	☐	5.000	7.248	61.11	0.0000	P	36.8
3	☐	50.000	56.856	448.90	0.0003	P	3.0
4	☐	125.000	127.698	958.94	0.0008	P	10.5
5	☐	250.000	273.764	1974.61	0.0016	P	1.2
6	☐	500.000	536.877	3790.56	0.0032	P	3.1
7	☐	1000.000	974.929	6765.02	0.0058	P	3.1
8	☐			0.00	0.0000	P	

$$y = 5.9135\text{E-}006 * x + 7.9749\text{E-}007$$

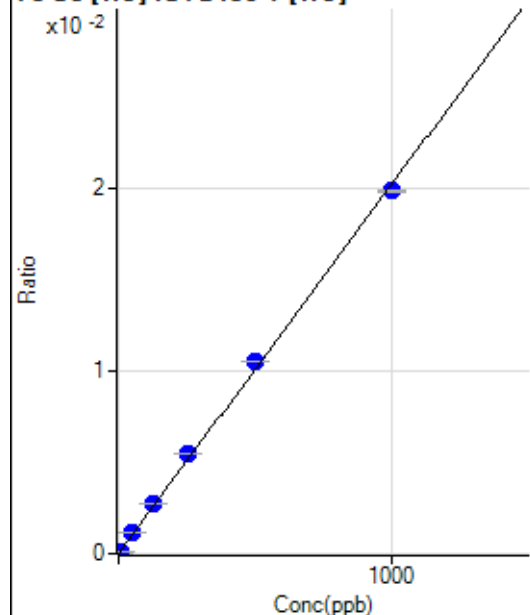
$$R = 0.9987$$

$$DL = 0.7008$$

$$BEC = 0.1349$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	18.52	0.0000	P	17.0
2	☐	5.000	5.604	177.16	0.0001	P	7.5
3	☐	50.000	56.039	1526.02	0.0011	P	1.7
4	☐	125.000	134.369	3460.94	0.0027	P	2.6
5	☐	250.000	271.138	6696.04	0.0055	P	0.8
6	☐	500.000	520.626	12573.42	0.0105	P	0.6
7	☐	1000.000	982.926	23318.82	0.0199	P	0.3
8	☐			24.07	0.0000	P	13.2

$$y = 2.0208\text{E-}005 * x + 1.3238\text{E-}005$$

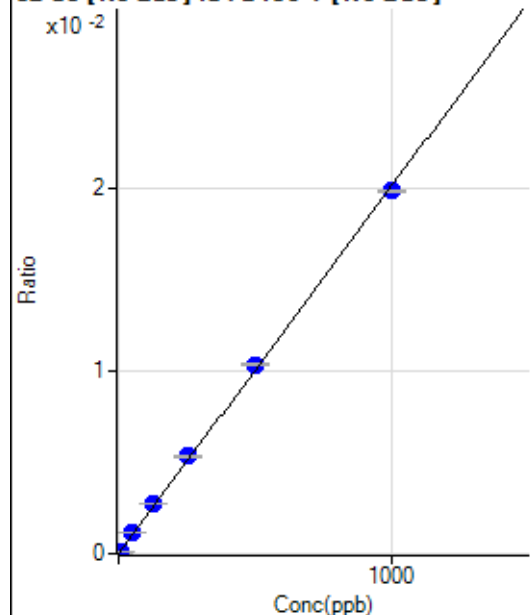
$$R = 0.9994$$

$$DL = 0.3339$$

$$BEC = 0.6551$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	-0.36	0.0000	P	-19116.
2	☐	5.000	5.231	1260.13	0.0001	P	14.7
3	☐	50.000	55.638	13129.25	0.0011	P	1.0
4	☐	125.000	134.041	30190.81	0.0027	P	0.7
5	☐	250.000	264.638	56566.13	0.0053	P	0.5
6	☐	500.000	515.286	107552.07	0.0103	P	1.6
7	☐	1000.000	987.284	205231.83	0.0198	P	0.7
8	☐			103.82	0.0000	P	68.2

$$y = 2.0083\text{E-}005 * x - 3.8151\text{E-}008$$

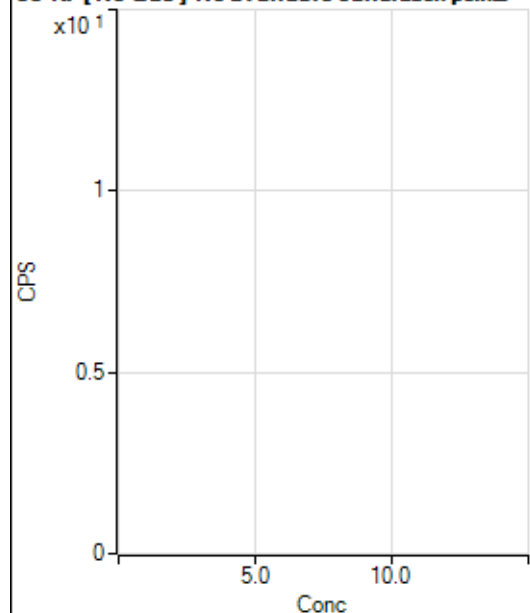
$$R = 0.9997$$

$$DL = 1.089$$

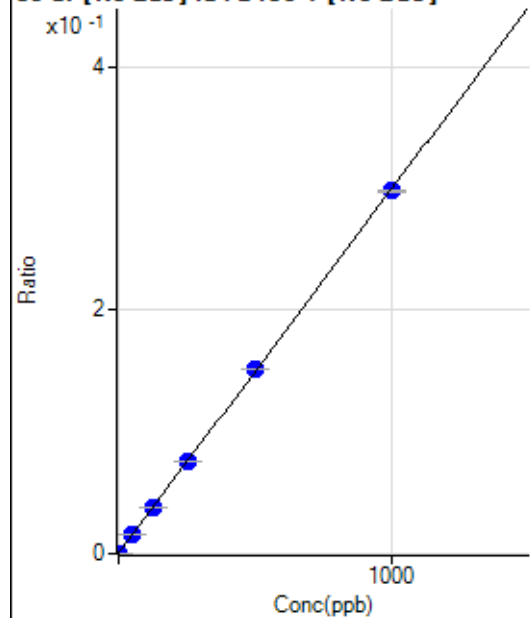
$$BEC = -0.0019$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			2326.89		P	5.6
2	☐			2461.36		P	5.7
3	☐			2328.00		P	6.8
4	☐			2223.55		P	3.7
5	☐			2115.75		P	4.9
6	☐			2049.07		P	6.7
7	☐			2059.07		P	6.0
8	☐			1901.27		P	2.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	3800.68	0.0003	P	2.1
2	☐	1.000	1.027	7410.54	0.0006	P	3.8
3	☐	50.000	50.843	182323.90	0.0155	P	1.8
4	☐	125.000	127.653	431699.04	0.0385	P	0.3
5	☐	250.000	254.354	813004.81	0.0764	P	0.1
6	☐	500.000	506.094	1576463.69	0.1517	P	1.0
7	☐	1000.000	995.491	3085116.72	0.2981	P	0.4
8	☐			15286.51	0.0015	P	2.8

$$y = 2.9909\text{E-}004 * x + 3.1038\text{E-}004$$

$$R = 1.0000$$

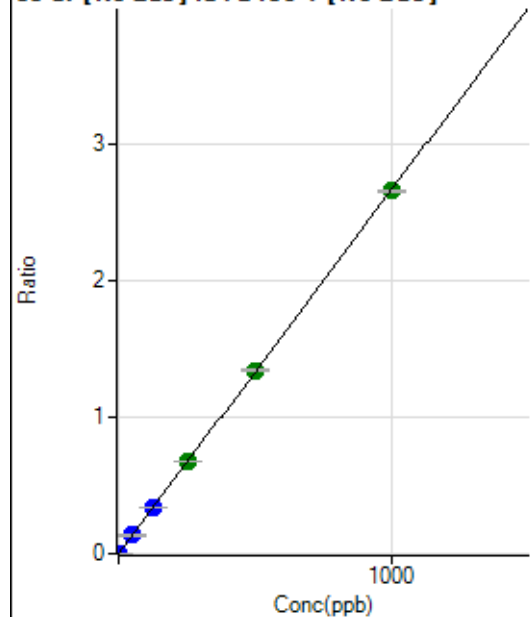
$$DL = 0.06644$$

$$BEC = 1.038$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	133.34	0.0000	P	21.4
2	☐	1.000	0.980	31393.73	0.0026	P	0.5
3	☐	50.000	50.532	1579081.05	0.1344	P	1.5
4	☐	125.000	126.923	3785618.62	0.3375	P	0.7
5	☐	250.000	252.753	7153992.70	0.6721	A	0.4
6	☐	500.000	503.766	13923365.24	1.3397	A	1.5
7	☐	1000.000	997.162	27448123.18	2.6517	A	0.2
8	☐			109882.26	0.0110	P	1.0

$$y = 0.0027 * x + 1.0886E-005$$

$$R = 1.0000$$

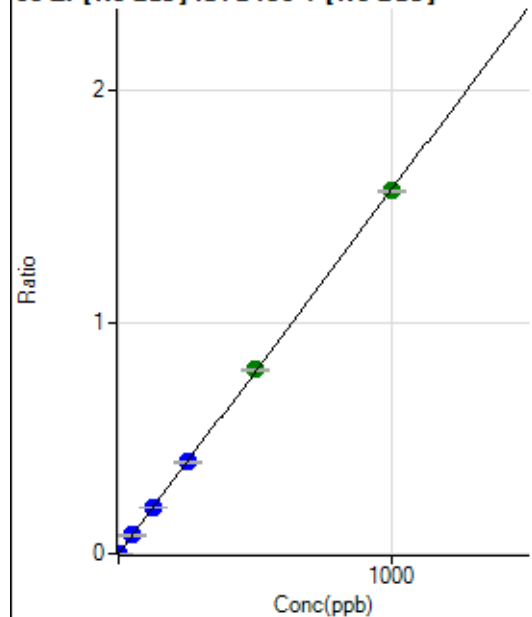
$$DL = 0.002632$$

$$BEC = 0.004093$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	955.63	0.0001	P	7.9
2	☐	1.000	0.879	17508.48	0.0015	P	0.9
3	☐	50.000	50.450	931967.23	0.0793	P	1.5
4	☐	125.000	125.890	2218474.74	0.1978	P	0.4
5	☐	250.000	251.494	4204884.16	0.3951	P	0.5
6	☐	500.000	505.086	8245536.64	0.7934	A	1.5
7	☐	1000.000	996.950	16208294.63	1.5659	A	0.7
8	☐			4184.11	0.0004	P	8.4

$$y = 0.0016 * x + 7.8026E-005$$

$$R = 1.0000$$

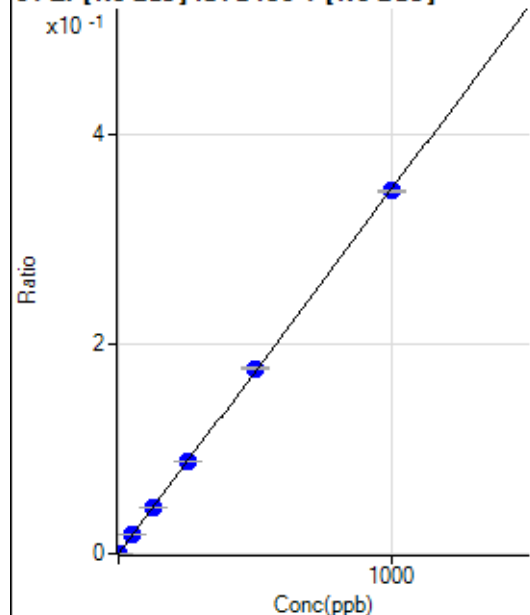
$$DL = 0.01174$$

$$BEC = 0.04968$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	211.12	0.0000	P	18.3
2	☐	1.000	0.852	3770.10	0.0003	P	2.1
3	☐	50.000	50.865	208459.23	0.0177	P	1.6
4	☐	125.000	126.883	496049.71	0.0442	P	0.7
5	☐	250.000	252.615	937034.20	0.0880	P	0.4
6	☐	500.000	506.836	1835709.46	0.1766	P	1.0
7	☐	1000.000	995.650	3591227.47	0.3469	P	0.3
8	☐			894.52	0.0001	P	10.8

$$y = 3.4844\text{E-}004 * x + 1.7235\text{E-}005$$

$$R = 1.0000$$

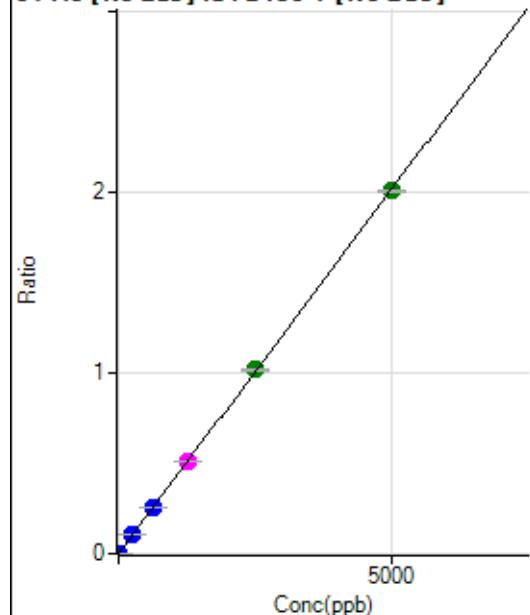
$$DL = 0.02717$$

$$BEC = 0.04946$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	400.03	0.0000	P	23.2
2	☐	5.000	4.675	22974.76	0.0019	P	3.3
3	☐	250.000	254.399	1203656.85	0.1024	P	1.6
4	☐	625.000	638.762	2884356.84	0.2572	P	0.3
5	☐	1250.000	1267.092	5429123.17	0.5101	M	0.2
6	☐	2500.000	2526.516	10570671.85	1.0171	A	1.3
7	☐	5000.000	4980.529	20752794.39	2.0049	A	0.2
8	☐			15689.75	0.0016	P	4.9

$$y = 4.0254\text{E-}004 * x + 3.2656\text{E-}005$$

$$R = 1.0000$$

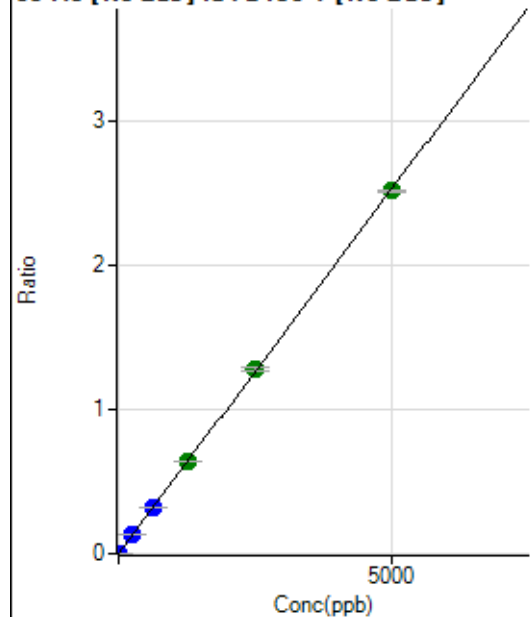
$$DL = 0.05655$$

$$BEC = 0.08112$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	169.45	0.0000	P	20.7
2	☐	5.000	4.817	29420.07	0.0025	P	1.8
3	☐	250.000	253.531	1507906.58	0.1283	P	1.8
4	☐	625.000	636.980	3616064.06	0.3224	P	0.5
5	☐	1250.000	1266.773	6824210.14	0.6412	A	0.3
6	☐	2500.000	2529.865	13307831.55	1.2805	A	1.7
7	☐	5000.000	4979.200	26085847.46	2.5201	A	0.4
8	☐			24444.06	0.0025	P	3.5

$$y = 5.0613\text{E-}004 * x + 1.3842\text{E-}005$$

$$R = 1.0000$$

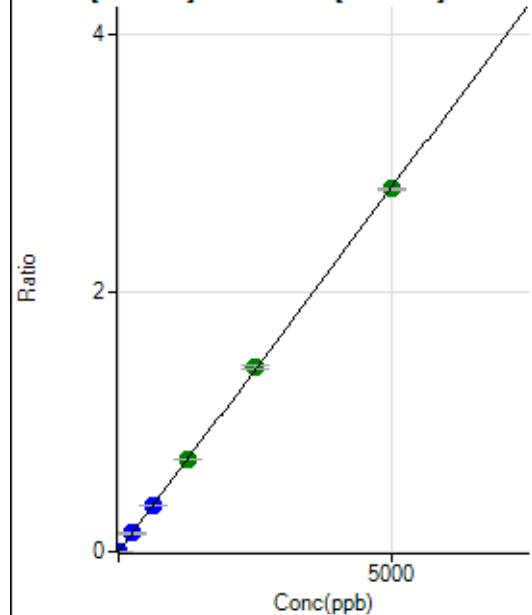
$$DL = 0.01697$$

$$BEC = 0.02735$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	233.35	0.0000	P	21.0
2	☐	5.000	4.717	32081.36	0.0027	P	2.5
3	☐	250.000	251.571	1663537.10	0.1416	P	1.7
4	☐	625.000	632.084	3989374.09	0.3557	P	0.3
5	☐	1250.000	1266.413	7584806.59	0.7126	A	0.3
6	☐	2500.000	2527.121	14779245.99	1.4220	A	1.7
7	☐	5000.000	4981.372	29013971.14	2.8030	A	0.5
8	☐			26912.30	0.0027	P	2.1

$$y = 5.6270\text{E-}004 * x + 1.9045\text{E-}005$$

$$R = 1.0000$$

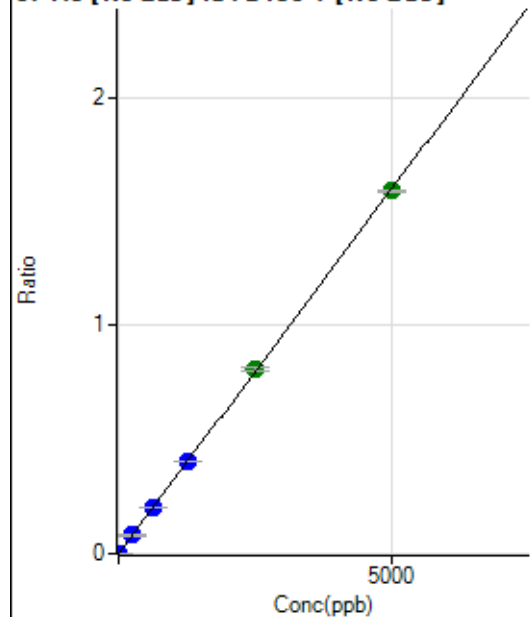
$$DL = 0.02128$$

$$BEC = 0.03385$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	122.23	0.0000	P	20.3
2	☐	5.000	4.765	18382.02	0.0015	P	1.8
3	☐	250.000	251.595	944289.87	0.0804	P	1.5
4	☐	625.000	630.192	2257519.02	0.2013	P	0.2
5	☐	1250.000	1264.118	4297166.50	0.4037	P	0.4
6	☐	2500.000	2536.885	8420926.66	0.8102	A	1.5
7	☐	5000.000	4977.299	16454446.72	1.5897	A	0.4
8	☐			15525.77	0.0016	P	4.7

$$y = 3.1938\text{E-}004 * x + 9.9754\text{E-}006$$

$$R = 1.0000$$

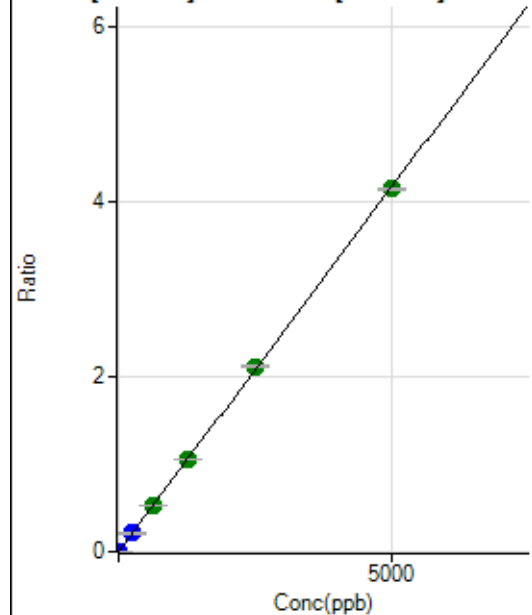
$$DL = 0.01902$$

$$BEC = 0.03123$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	266.68	0.0000	P	19.9
2	☐	5.000	4.767	47892.23	0.0040	P	1.2
3	☐	250.000	251.239	2458427.23	0.2092	P	1.2
4	☐	625.000	631.206	5895158.81	0.5256	A	0.5
5	☐	1250.000	1267.364	11232282.98	1.0553	A	0.1
6	☐	2500.000	2535.763	21945442.33	2.1115	A	1.2
7	☐	5000.000	4976.940	42896538.81	4.1442	A	0.3
8	☐			39725.81	0.0040	P	0.8

$$y = 8.3268\text{E-}004 * x + 2.1790\text{E-}005$$

$$R = 1.0000$$

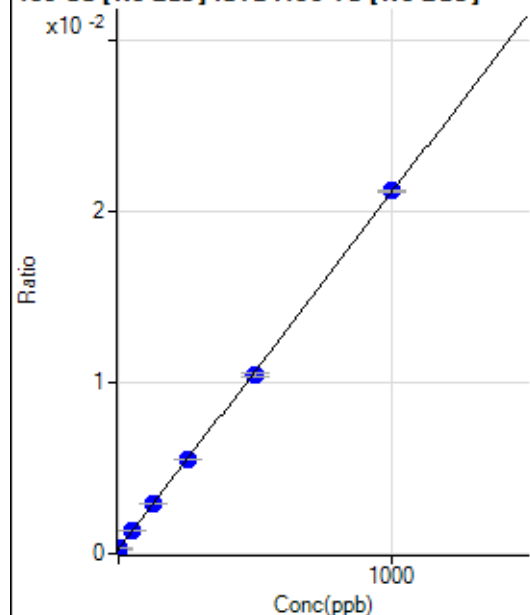
$$DL = 0.0156$$

$$BEC = 0.02617$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	5223.43	0.0003	P	8.1
2	☐	1.000	1.809	5895.93	0.0003	P	3.8
3	☐	50.000	54.520	27335.63	0.0014	P	0.6
4	☐	125.000	128.305	55467.59	0.0029	P	0.4
5	☐	250.000	251.670	101129.38	0.0055	P	1.1
6	☐	500.000	488.162	188285.38	0.0104	P	2.4
7	☐	1000.000	1004.861	381741.04	0.0212	P	0.3
8	☐			4712.13	0.0003	P	4.6

$$y = 2.0845\text{E-}005 * x + 2.5853\text{E-}004$$

$$R = 0.9999$$

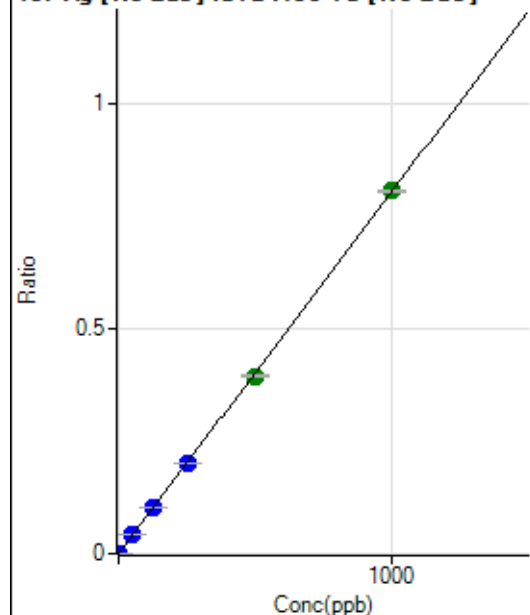
$$DL = 3.006$$

$$BEC = 12.4$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	200.01	0.0000	P	7.5
2	☐	1.000	0.782	12681.15	0.0006	P	3.8
3	☐	50.000	52.574	826197.17	0.0422	P	1.9
4	☐	125.000	129.328	1961473.07	0.1037	P	0.6
5	☐	250.000	250.062	3684541.01	0.2005	P	0.4
6	☐	500.000	491.720	7116351.98	0.3943	A	1.9
7	☐	1000.000	1003.455	14487222.72	0.8047	A	0.8
8	☐			1928.00	0.0001	P	15.7

$$y = 8.0194\text{E-}004 * x + 9.8999\text{E-}006$$

$$R = 0.9999$$

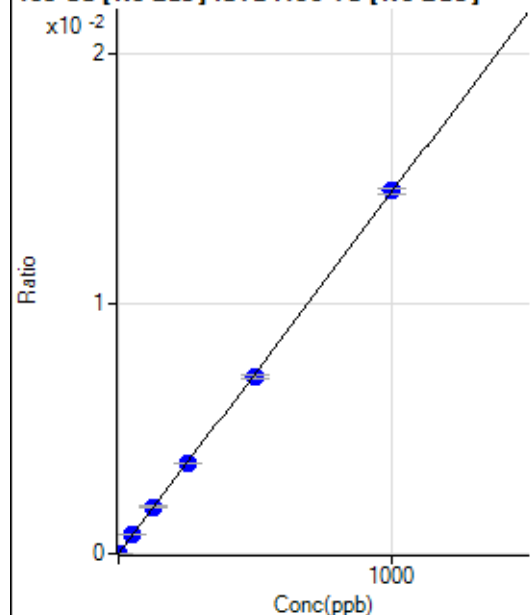
$$DL = 0.002774$$

$$BEC = 0.01234$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	15.28	0.0000	P	41.7
2	☐	1.000	0.989	300.01	0.0000	P	28.6
3	☐	50.000	53.666	15229.29	0.0008	P	5.4
4	☐	125.000	129.753	35529.41	0.0019	P	1.6
5	☐	250.000	250.772	66706.59	0.0036	P	1.0
6	☐	500.000	489.424	127857.71	0.0071	P	2.2
7	☐	1000.000	1004.318	261727.30	0.0145	P	1.4
8	☐			62.50	0.0000	P	35.1

$$y = 1.4475\text{E-}005 * x + 7.5606\text{E-}007$$

$$R = 0.9999$$

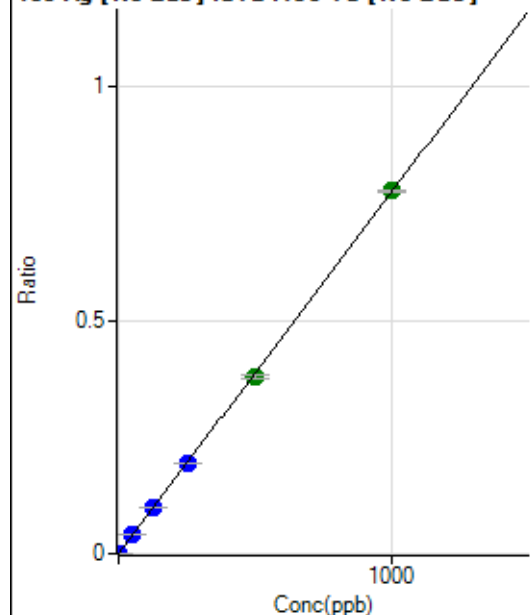
$$DL = 0.06539$$

$$BEC = 0.05223$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	102.78	0.0000	P	16.9
2	☐	1.000	0.790	12269.65	0.0006	P	2.6
3	☐	50.000	52.832	800932.72	0.0409	P	2.4
4	☐	125.000	129.317	1892238.91	0.1001	P	0.5
5	☐	250.000	250.992	3568078.12	0.1942	P	0.2
6	☐	500.000	491.128	6857752.58	0.3800	A	1.9
7	☐	1000.000	1003.507	13978386.60	0.7765	A	0.4
8	☐			1652.95	0.0001	P	3.9

$$y = 7.7374\text{E-}004 * x + 5.0867\text{E-}006$$

$$R = 0.9999$$

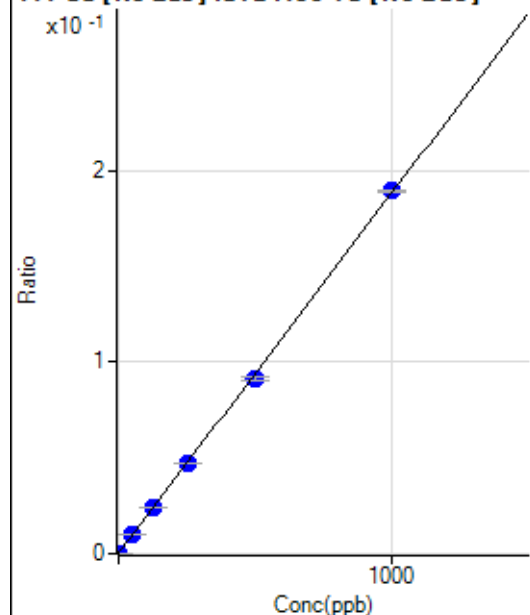
$$DL = 0.003329$$

$$BEC = 0.006574$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	3683.21	0.0002	P	8.5
2	☐	1.000	1.035	7502.41	0.0004	P	3.5
3	☐	50.000	51.991	195195.42	0.0100	P	1.5
4	☐	125.000	128.020	458884.90	0.0243	P	0.7
5	☐	250.000	249.207	864681.02	0.0471	P	0.7
6	☐	500.000	485.888	1652744.88	0.0916	P	2.5
7	☐	1000.000	1006.777	3413026.27	0.1896	P	0.7
8	☐			3770.04	0.0002	P	4.1

$$y = 1.8812\text{E-}004 * x + 1.8230\text{E-}004$$

$$R = 0.9998$$

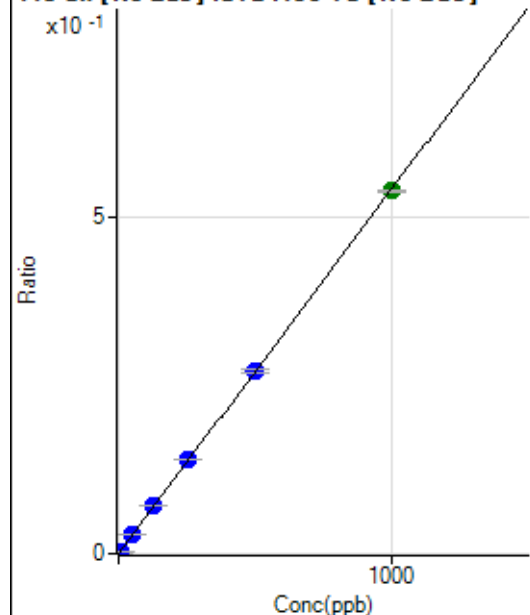
$$DL = 0.2467$$

$$BEC = 0.969$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	802.84	0.0000	P	4.7
2	☐	5.000	5.151	56241.16	0.0028	P	1.2
3	☐	50.000	52.342	555436.80	0.0284	P	2.3
4	☐	125.000	130.356	1334166.90	0.0706	P	0.5
5	☐	250.000	256.842	2553204.18	0.1390	P	0.3
6	☐	500.000	503.303	4913650.46	0.2723	P	2.0
7	☐	1000.000	995.850	9698252.39	0.5387	A	0.5
8	☐			4428.67	0.0003	P	3.7

$$y = 5.4091\text{E-}004 * x + 3.9732\text{E-}005$$

$$R = 1.0000$$

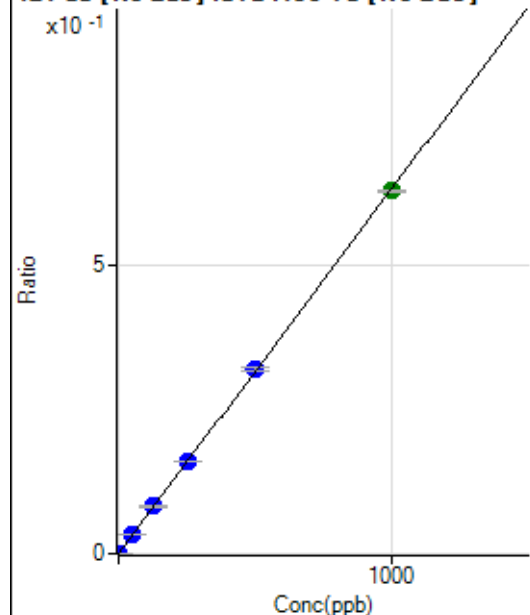
$$DL = 0.01026$$

$$BEC = 0.07345$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	191.68	0.0000	P	14.8
2	☐	2.000	1.954	24833.89	0.0012	P	2.7
3	☐	50.000	51.897	644379.79	0.0329	P	2.4
4	☐	125.000	129.470	1551417.22	0.0820	P	1.3
5	☐	250.000	254.845	2966813.00	0.1615	P	0.4
6	☐	500.000	505.788	5783398.91	0.3205	P	2.0
7	☐	1000.000	995.241	11352669.44	0.6306	A	0.2
8	☐			15194.98	0.0009	P	3.1

$$y = 6.3361E-004 * x + 9.4834E-006$$

$$R = 1.0000$$

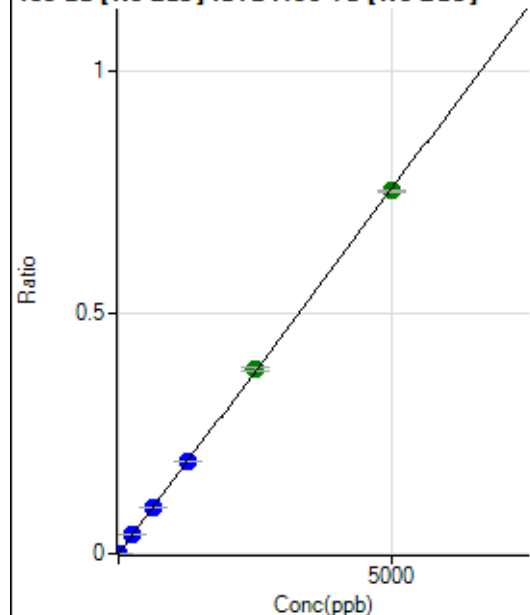
$$DL = 0.006625$$

$$BEC = 0.01497$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	27.78	0.0000	P	75.7
2	☐	10.000	10.236	30843.48	0.0015	P	2.0
3	☐	250.000	258.190	765162.64	0.0391	P	2.0
4	☐	625.000	643.893	1841877.28	0.0974	P	0.6
5	☐	1250.000	1261.425	3505649.21	0.1908	P	0.6
6	☐	2500.000	2539.619	6932411.79	0.3842	A	2.2
7	☐	5000.000	4974.562	13546800.30	0.7525	A	0.3
8	☐			1827.98	0.0001	P	14.5

$$y = 1.5127E-004 * x + 1.3753E-006$$

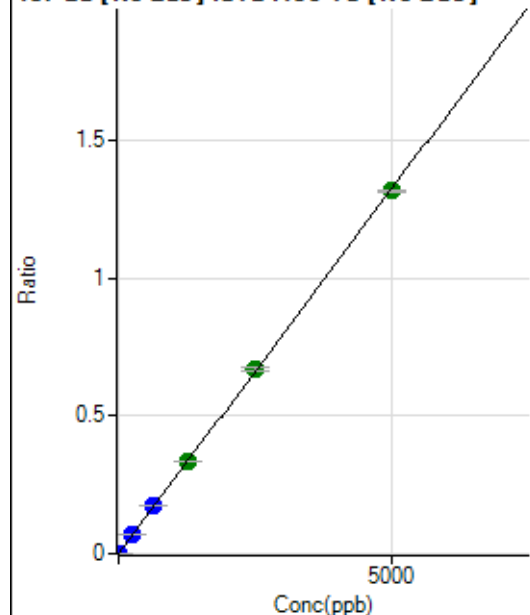
$$R = 0.9999$$

$$DL = 0.02065$$

$$BEC = 0.009092$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	44.44	0.0000	P	75.9
2	☐	10.000	10.346	54505.13	0.0027	P	4.2
3	☐	250.000	260.158	1348194.41	0.0688	P	2.2
4	☐	625.000	649.433	3248522.45	0.1718	P	0.4
5	☐	1250.000	1274.314	6192730.65	0.3371	A	0.5
6	☐	2500.000	2531.485	12083864.94	0.6696	A	1.8
7	☐	5000.000	4974.616	23688681.43	1.3158	A	0.8
8	☐			3144.96	0.0002	P	6.3

$$y = 2.6451E-004 * x + 2.1997E-006$$

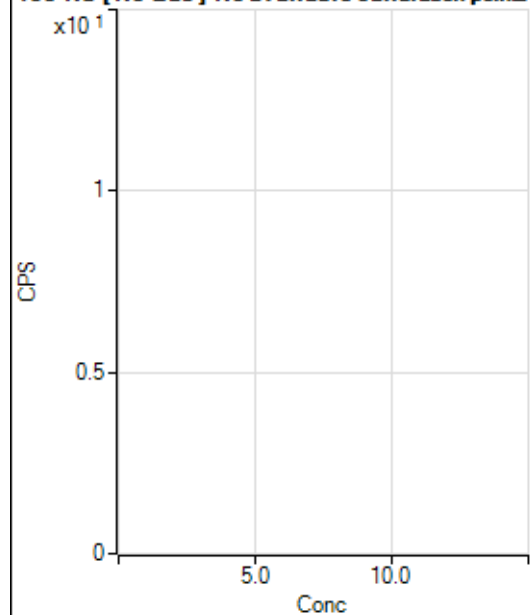
$$R = 1.0000$$

$$DL = 0.01894$$

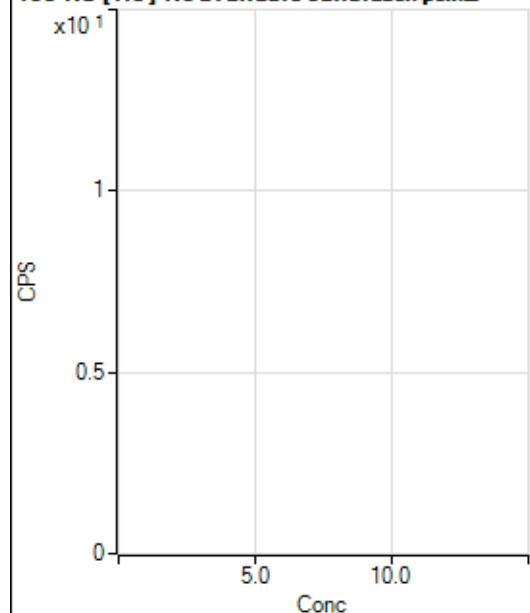
$$BEC = 0.008316$$

Weight: <None>

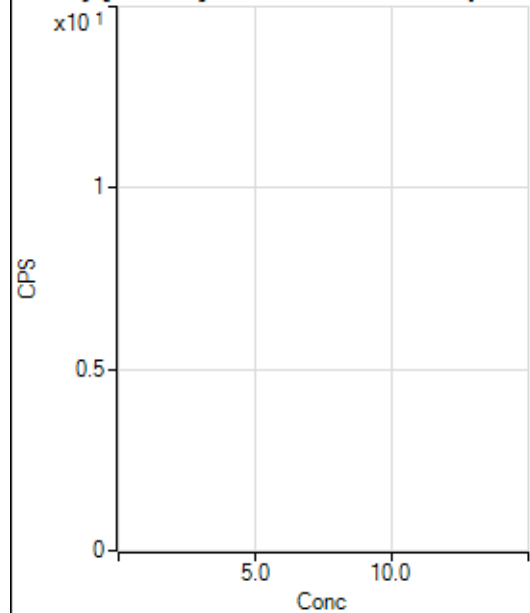
Min Conc: 0

150 Nd [No Gas] No available calibration points

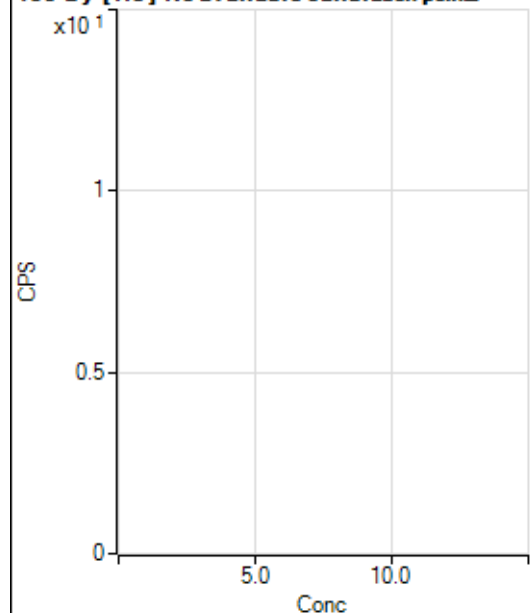
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			4.44		P	173.2
2	☐			6.67		P	0.0
3	☐			95.56		P	4.0
4	☐			175.56		P	7.9
5	☐			313.35		P	22.5
6	☐			566.70		P	13.3
7	☐			1151.20		P	8.7
8	☐			193.34		P	12.4

150 Nd [He] No available calibration points

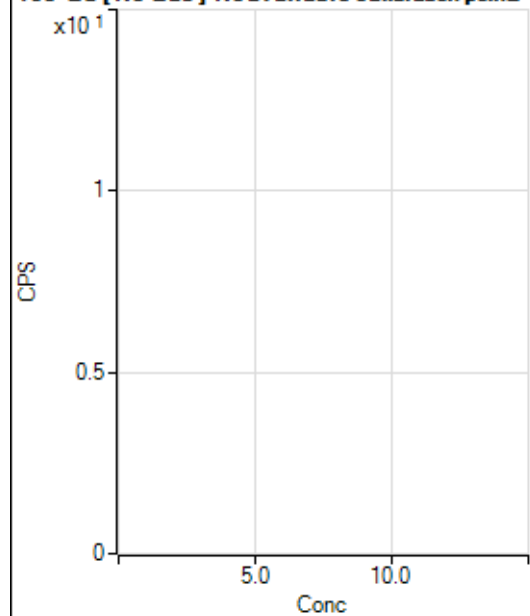
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			4.44		P	114.6
2	☐			6.67		P	50.0
3	☐			8.89		P	86.6
4	☐			12.22		P	31.5
5	☐			37.78		P	25.5
6	☐			43.33		P	46.2
7	☐			66.67		P	34.6
8	☐			63.33		P	50.2

156 Dy [No Gas] No available calibration points

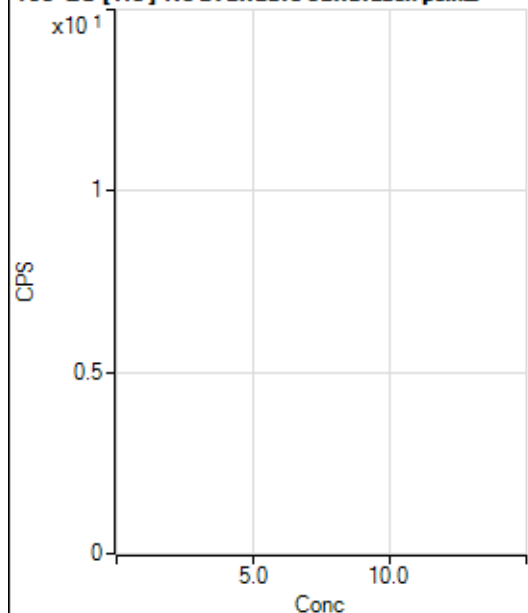
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			16.67		P	50.0
2	☐			11.11		P	114.6
3	☐			16.67		P	100.0
4	☐			41.67		P	87.2
5	☐			61.11		P	55.1
6	☐			144.45		P	23.3
7	☐			255.57		P	11.5
8	☐			69.45		P	30.2

156 Dy [He] No available calibration points

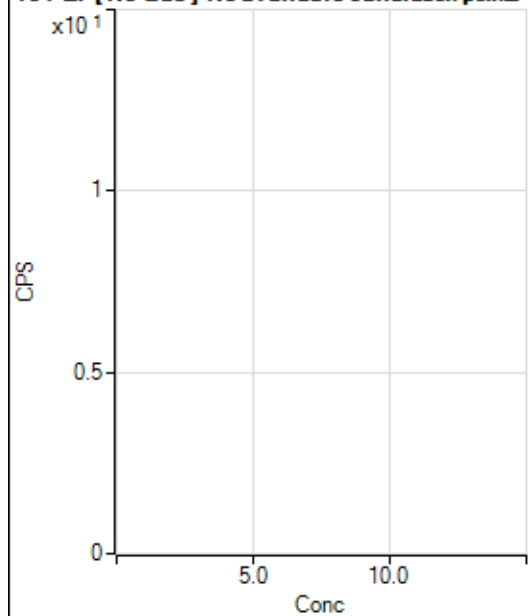
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			15.56		P	12.4
2	☐			14.44		P	53.3
3	☐			37.78		P	20.4
4	☐			55.56		P	29.6
5	☐			41.11		P	40.0
6	☐			120.00		P	12.1
7	☐			192.22		P	7.0
8	☐			35.55		P	37.9

160 Gd [No Gas] Noavailable calibration poin_

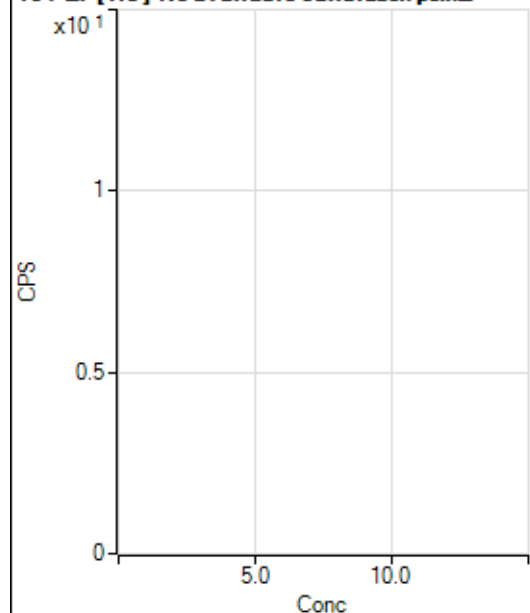
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			88.89		P	14.3
2	☐			125.00		P	41.6
3	☐			102.78		P	18.7
4	☐			91.67		P	15.7
5	☐			100.01		P	46.4
6	☐			111.12		P	48.2
7	☐			122.23		P	17.2
8	☐			125.01		P	23.1

160 Gd [He] No available calibration points

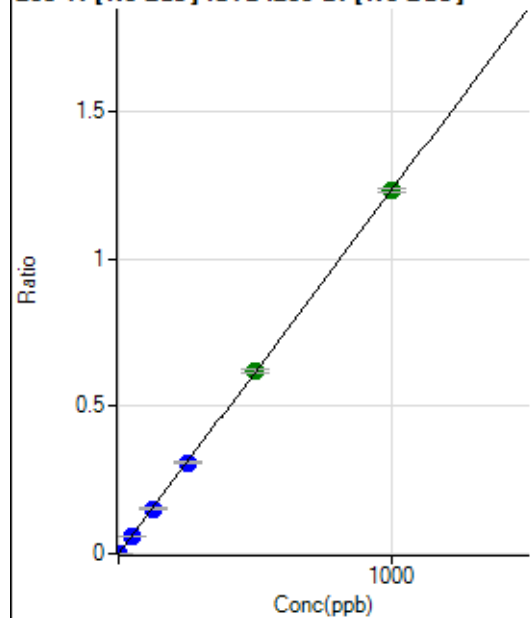
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			167.78		P	14.4
2	☐			181.11		P	9.4
3	☐			192.23		P	5.6
4	☐			177.78		P	12.1
5	☐			162.23		P	24.1
6	☐			177.78		P	25.2
7	☐			198.89		P	8.6
8	☐			200.00		P	10.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			80.56		P	29.9
2	☐			75.00		P	11.1
3	☐			94.45		P	25.5
4	☐			91.67		P	27.3
5	☐			88.89		P	35.5
6	☐			100.01		P	8.3
7	☐			108.34		P	33.5
8	☐			100.00		P	8.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			45.55		P	15.2
2	☐			50.00		P	13.3
3	☐			48.89		P	14.2
4	☐			55.56		P	30.8
5	☐			60.00		P	36.4
6	☐			63.33		P	13.9
7	☐			52.22		P	25.8
8	☐			64.45		P	32.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1138.99	0.0001	P	10.2
2	☐	1.000	0.937	17595.64	0.0012	P	1.2
3	☐	50.000	49.138	851817.95	0.0607	P	2.1
4	☐	125.000	124.218	2078501.17	0.1533	P	0.7
5	☐	250.000	250.296	4029137.55	0.3089	P	1.0
6	☐	500.000	503.513	7844382.29	0.6213	A	1.6
7	☐	1000.000	998.311	15284094.44	1.2318	A	0.9
8	☐			4673.26	0.0004	P	3.4

$$y = 0.0012 * x + 7.7923E-005$$

$$R = 1.0000$$

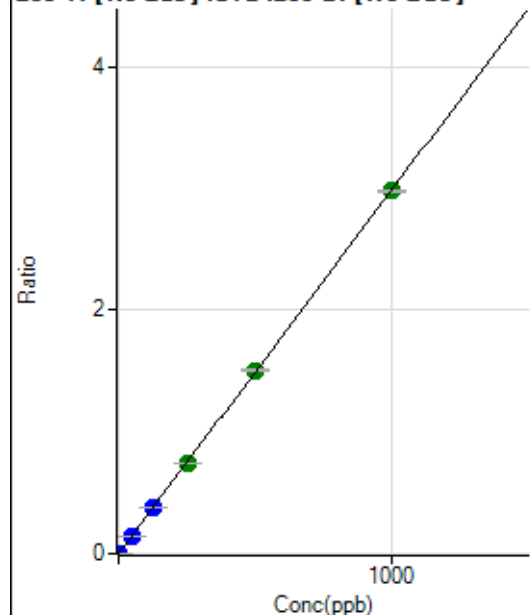
$$DL = 0.0194$$

$$BEC = 0.06316$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2100.27	0.0001	P	4.9
2	☐	1.000	0.948	42374.04	0.0030	P	1.2
3	☐	50.000	49.134	2058902.32	0.1467	P	1.7
4	☐	125.000	125.297	5068524.72	0.3739	P	0.9
5	☐	250.000	249.999	9730056.81	0.7459	A	0.8
6	☐	500.000	503.407	18963188.10	1.5019	A	1.2
7	☐	1000.000	998.303	36955174.79	2.9783	A	0.6
8	☐			10451.82	0.0010	P	9.7

$$y = 0.0030 * x + 1.4368E-004$$

$$R = 1.0000$$

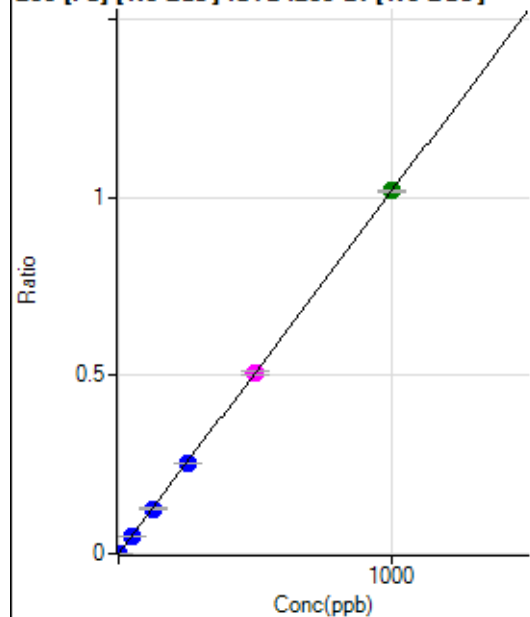
$$DL = 0.007089$$

$$BEC = 0.04816$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1383.45	0.0001	P	2.0
2	☐	1.000	0.956	15218.36	0.0011	P	1.6
3	☐	50.000	48.949	700195.53	0.0499	P	1.4
4	☐	125.000	124.358	1716374.52	0.1266	P	0.5
5	☐	250.000	247.910	3291447.56	0.2523	P	0.0
6	☐	500.000	498.476	6404344.41	0.5073	M	1.8
7	☐	1000.000	1001.417	12643891.02	1.0190	A	0.2
8	☐			10545.19	0.0010	P	3.2

$$y = 0.0010 * x + 9.4663E-005$$

$$R = 1.0000$$

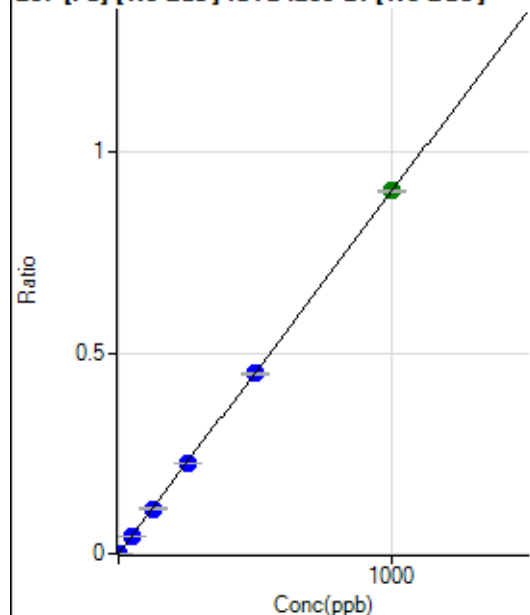
$$DL = 0.005473$$

$$BEC = 0.09304$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1285.29	0.0001	P	7.4
2	☐	1.000	0.930	13227.31	0.0009	P	2.3
3	☐	50.000	49.034	622296.76	0.0443	P	1.1
4	☐	125.000	124.435	1523596.79	0.1124	P	0.8
5	☐	250.000	247.833	2919060.14	0.2238	P	0.2
6	☐	500.000	497.480	5670281.26	0.4491	P	1.5
7	☐	1000.000	1001.921	11222157.66	0.9044	A	0.4
8	☐			9859.49	0.0009	P	2.1

$$y = 9.0259\text{E-}004 * x + 8.7911\text{E-}005$$

$$R = 1.0000$$

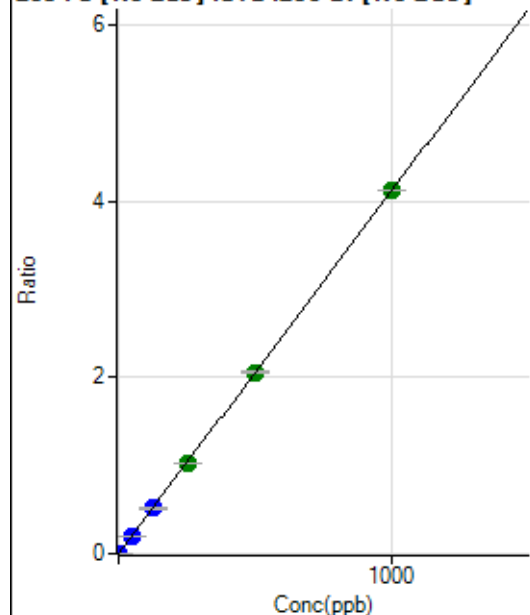
$$DL = 0.02171$$

$$BEC = 0.0974$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	4959.76	0.0003	P	1.3
2	☐	1.000	0.941	60028.08	0.0042	P	1.4
3	☐	50.000	49.137	2840505.23	0.2024	P	1.2
4	☐	125.000	124.577	6949406.69	0.5127	P	0.4
5	☐	250.000	248.938	13358912.19	1.0241	A	0.2
6	☐	500.000	500.306	25982012.33	2.0579	A	1.6
7	☐	1000.000	1000.209	51045469.43	4.1138	A	0.2
8	☐			43285.99	0.0040	P	1.8

$$y = 0.0041 * x + 3.3938\text{E-}004$$

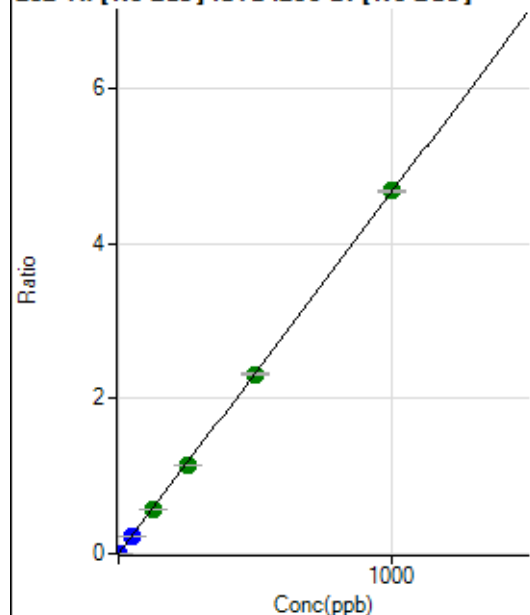
$$R = 1.0000$$

$$DL = 0.003227$$

$$BEC = 0.08252$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2461.42	0.0002	P	3.2
2	☐	1.000	0.785	54647.44	0.0038	P	1.2
3	☐	50.000	46.895	3073162.71	0.2190	P	1.6
4	☐	125.000	120.408	7618331.83	0.5620	A	0.9
5	☐	250.000	243.737	14838376.72	1.1375	A	0.4
6	☐	500.000	496.538	29257318.71	2.3172	A	1.1
7	☐	1000.000	1004.026	58137842.04	4.6854	A	0.3
8	☐			9796.54	0.0009	P	8.0

$$y = 0.0047 * x + 1.6841E-004$$

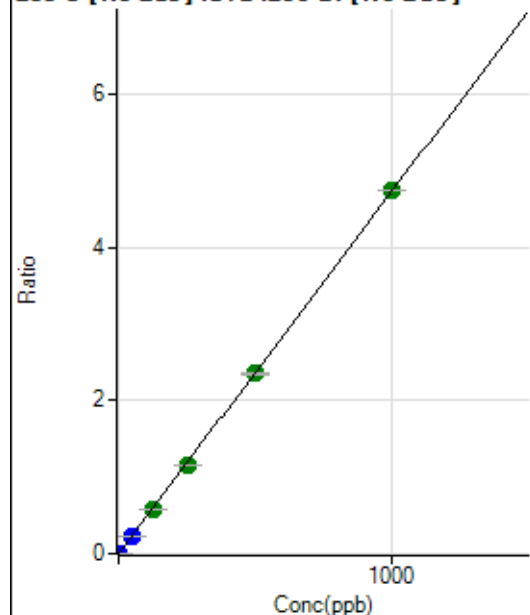
$$R = 1.0000$$

$$DL = 0.003423$$

$$BEC = 0.03609$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2936.58	0.0002	P	4.8
2	☐	1.000	0.873	61696.58	0.0043	P	0.7
3	☐	50.000	46.849	3110727.22	0.2217	P	1.9
4	☐	125.000	120.761	7740922.48	0.5711	A	1.4
5	☐	250.000	244.134	15057754.33	1.1544	A	0.2
6	☐	500.000	498.163	29738108.65	2.3553	A	1.2
7	☐	1000.000	1003.073	58843979.09	4.7422	A	0.0
8	☐			6160.12	0.0006	P	9.9

$$y = 0.0047 * x + 2.0095E-004$$

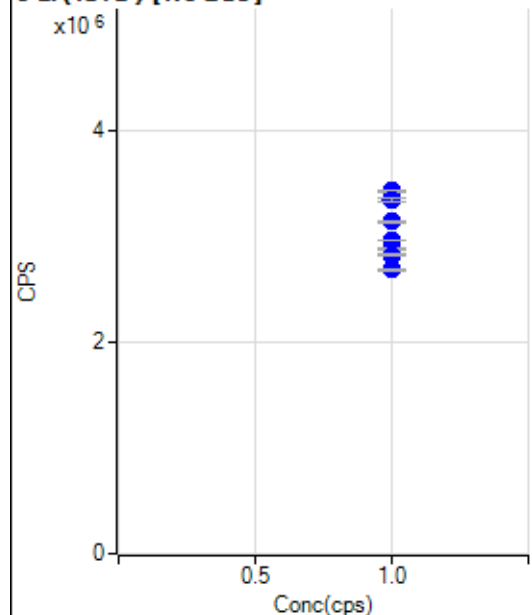
$$R = 1.0000$$

$$DL = 0.006074$$

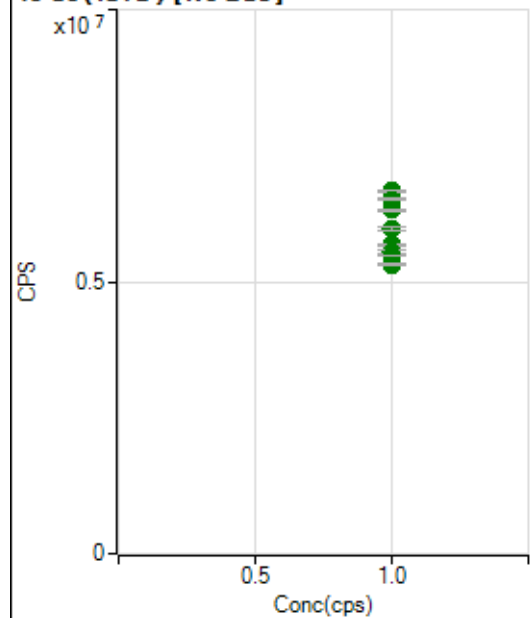
$$BEC = 0.04251$$

Weight: <None>

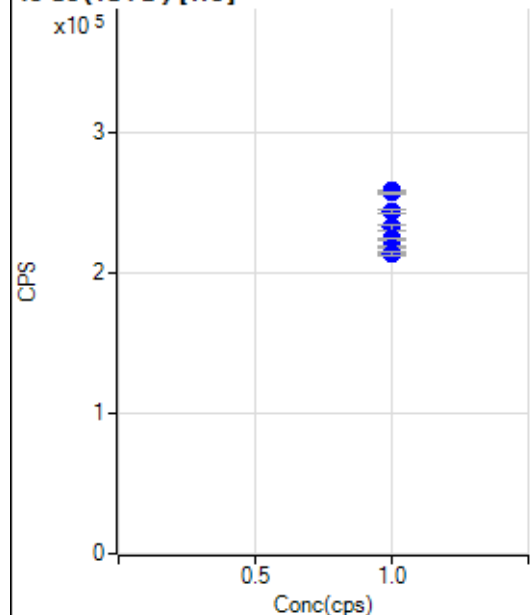
Min Conc: 0

6 Li (ISTD) [No Gas]

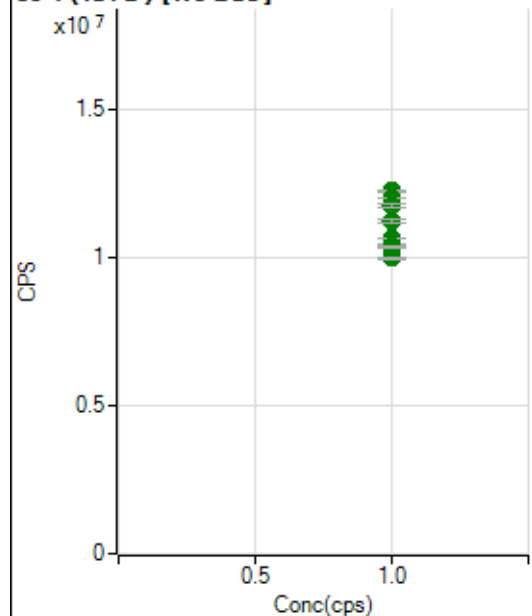
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		3433111.80		P	0.1
2	☐	1.000		3428071.70		P	0.4
3	☐	1.000		3347049.69		P	1.1
4	☐	1.000		3139039.20		P	1.0
5	☐	1.000		2971788.67		P	0.1
6	☐	1.000		2883496.82		P	1.1
7	☐	1.000		2825514.94		P	0.6
8	☐	1.000		2684887.47		P	0.8

45 Sc (ISTD) [No Gas]

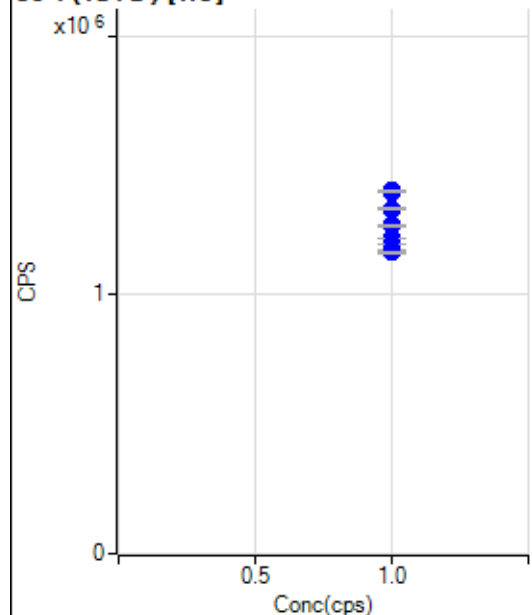
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		6675041.38		A	0.2
2	☐	1.000		6524866.73		A	0.5
3	☐	1.000		6315956.00		A	1.0
4	☐	1.000		5996265.59		A	1.2
5	☐	1.000		5680819.75		A	0.6
6	☐	1.000		5540985.76		A	1.3
7	☐	1.000		5491528.34		A	0.3
8	☐	1.000		5319568.26		A	0.4

45 Sc (ISTD) [He]

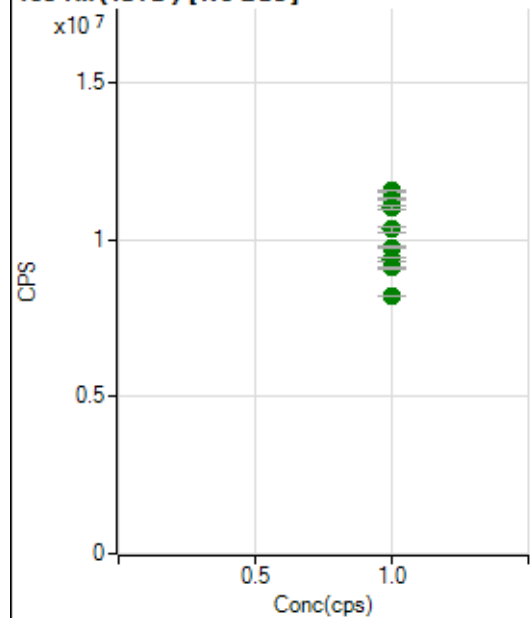
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		258438.60		P	0.5
2	☐	1.000		256869.55		P	0.3
3	☐	1.000		244400.56		P	1.1
4	☐	1.000		232194.61		P	1.2
5	☐	1.000		224241.95		P	1.0
6	☐	1.000		218416.35		P	0.6
7	☐	1.000		213307.17		P	0.6
8	☐	1.000		213624.83		P	0.8

89 Y (ISTD) [No Gas]

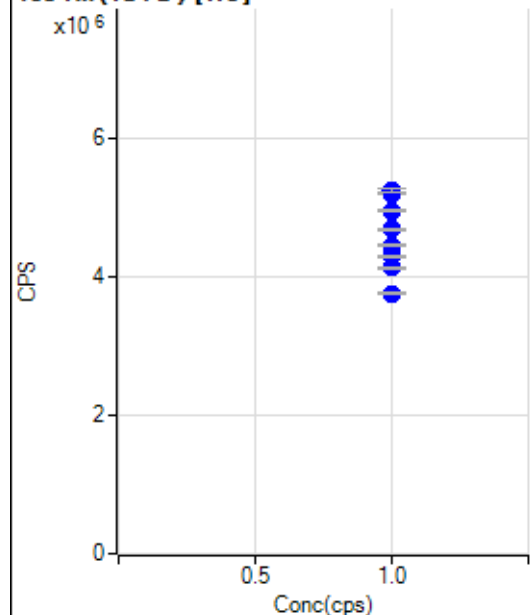
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		12244513.43		A	0.5
2	☐	1.000		12000018.29		A	0.2
3	☐	1.000		11751220.66		A	1.1
4	☐	1.000		11215896.36		A	0.8
5	☐	1.000		10643434.98		A	0.3
6	☐	1.000		10394095.33		A	0.9
7	☐	1.000		10350981.24		A	0.3
8	☐	1.000		9962685.34		A	0.2

89 Y(ISTD) [He]

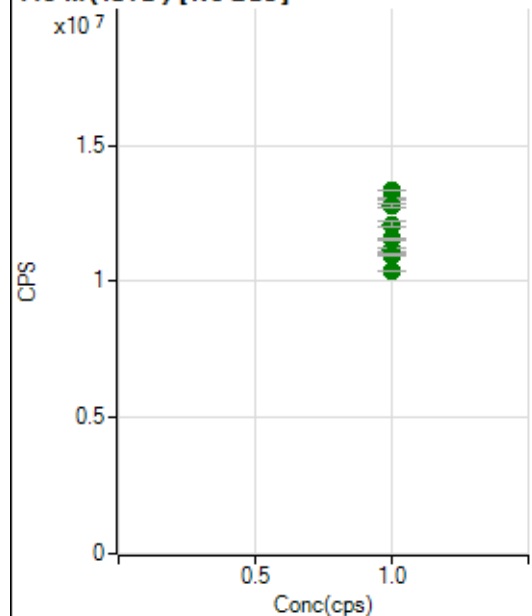
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		1398180.48		P	0.4
2	☐	1.000		1401361.45		P	0.9
3	☐	1.000		1332041.57		P	0.4
4	☐	1.000		1268412.40		P	0.3
5	☐	1.000		1219145.03		P	0.3
6	☐	1.000		1193610.62		P	0.2
7	☐	1.000		1173209.61		P	0.3
8	☐	1.000		1162499.39		P	0.3

103 Rh(ISTD) [No Gas]

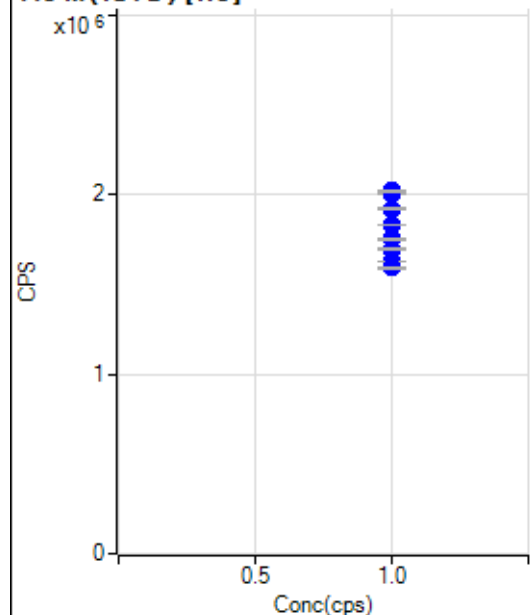
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		11564519.18		A	0.2
2	☐	1.000		11304070.57		A	0.4
3	☐	1.000		11028697.38		A	1.2
4	☐	1.000		10342111.08		A	1.8
5	☐	1.000		9759090.06		A	0.7
6	☐	1.000		9379280.59		A	0.7
7	☐	1.000		9107668.08		A	0.5
8	☐	1.000		8229812.85		A	0.1

103 Rh (ISTD) [He]

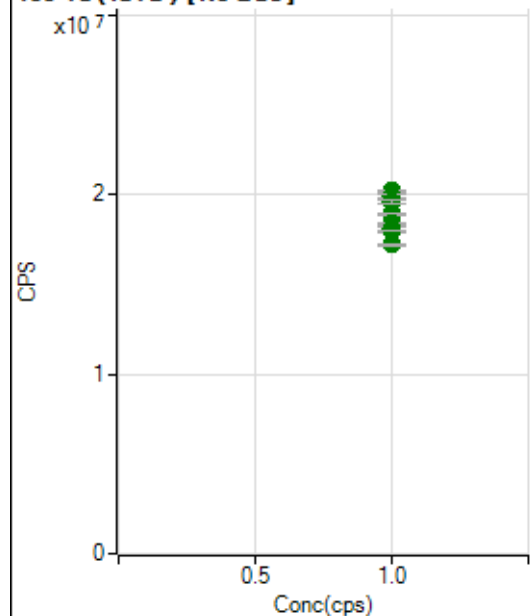
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		5192221.69		P	0.2
2	☐	1.000		5229662.56		P	1.0
3	☐	1.000		4945321.25		P	0.4
4	☐	1.000		4673323.71		P	0.5
5	☐	1.000		4446626.57		P	0.2
6	☐	1.000		4290627.65		P	0.6
7	☐	1.000		4119864.97		P	0.2
8	☐	1.000		3754889.28		P	0.1

115 In (ISTD) [No Gas]

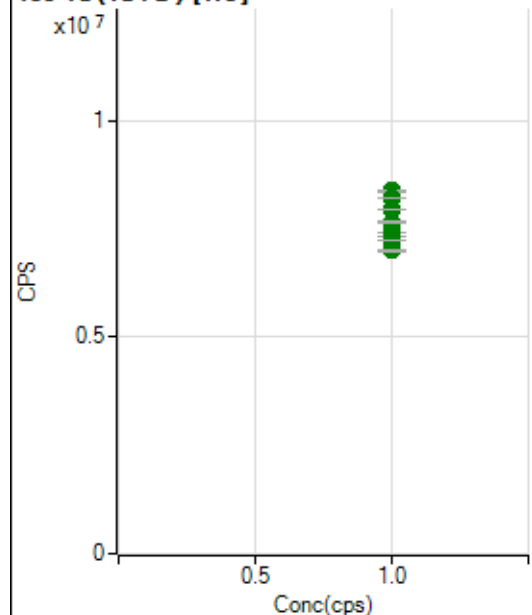
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		13321091.39		A	0.2
2	☐	1.000		13019413.30		A	0.6
3	☐	1.000		12789211.07		A	0.9
4	☐	1.000		12107195.09		A	1.2
5	☐	1.000		11550545.19		A	0.8
6	☐	1.000		11179201.41		A	1.2
7	☐	1.000		10952968.55		A	0.5
8	☐	1.000		10377053.79		A	0.6

115 In (ISTD) [He]

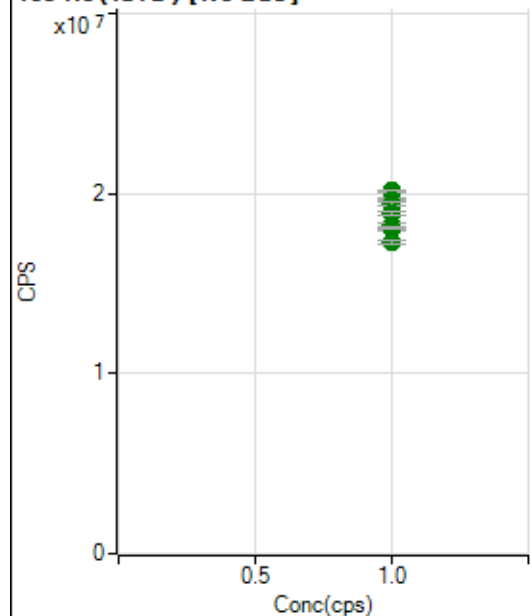
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		2006428.25		P	0.2
2	☐	1.000		2019459.84		P	0.5
3	☐	1.000		1919960.23		P	0.7
4	☐	1.000		1826868.40		P	0.2
5	☐	1.000		1751053.67		P	0.3
6	☐	1.000		1696168.30		P	0.9
7	☐	1.000		1627480.27		P	0.4
8	☐	1.000		1589614.98		P	0.6

159 Tb (ISTD) [No Gas]

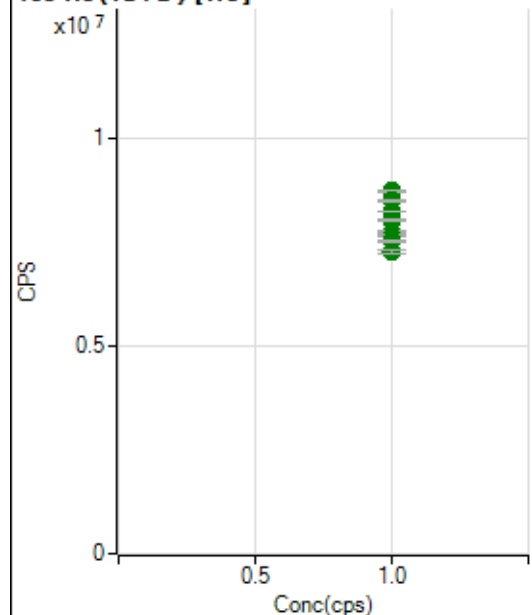
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		20206073.73		A	0.3
2	☐	1.000		19903931.09		A	1.0
3	☐	1.000		19594663.04		A	1.4
4	☐	1.000		18911128.19		A	1.0
5	☐	1.000		18372561.95		A	0.4
6	☐	1.000		18049733.76		A	1.6
7	☐	1.000		18002810.84		A	0.1
8	☐	1.000		17201282.38		A	0.4

159 Tb (ISTD) [He]

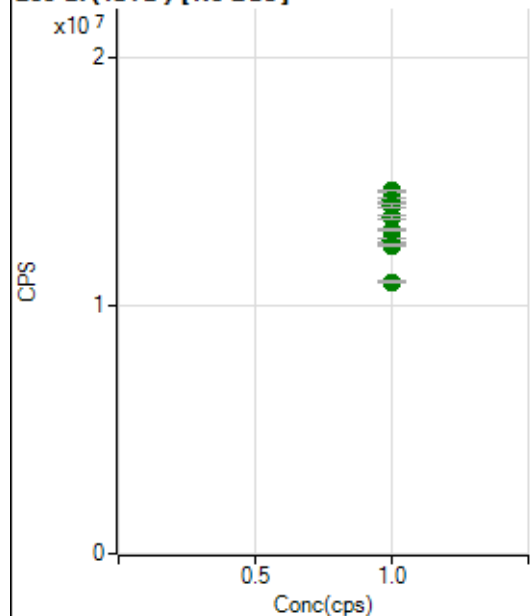
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		8383699.18		A	0.3
2	☐	1.000		8231529.74		A	0.2
3	☐	1.000		7957974.19		A	0.4
4	☐	1.000		7657103.29		A	0.6
5	☐	1.000		7430142.59		A	0.2
6	☐	1.000		7338451.97		A	0.1
7	☐	1.000		7233769.13		A	0.3
8	☐	1.000		7003639.83		A	0.6

165 Ho (ISTD) [No Gas]

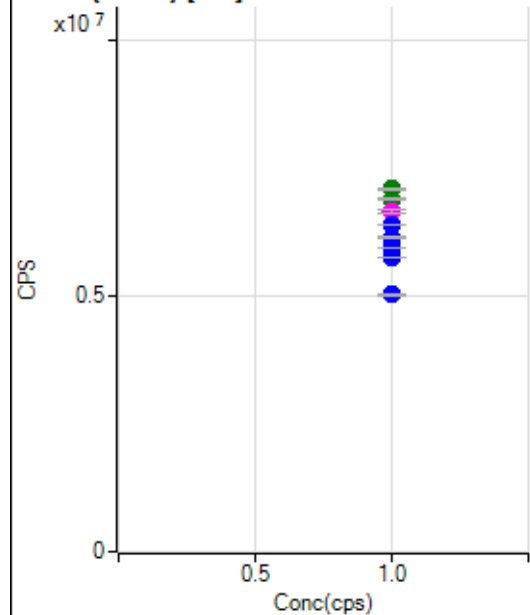
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		20140652.88		A	0.5
2	☐	1.000		19687569.54		A	0.4
3	☐	1.000		19416621.61		A	1.0
4	☐	1.000		18904520.74		A	1.1
5	☐	1.000		18272038.43		A	0.8
6	☐	1.000		18036546.93		A	0.6
7	☐	1.000		18055224.02		A	0.5
8	☐	1.000		17294298.13		A	1.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		8720736.74		A	0.4
2	☐	1.000		8493697.44		A	0.5
3	☐	1.000		8232050.15		A	0.4
4	☐	1.000		7997812.94		A	0.6
5	☐	1.000		7739492.59		A	0.1
6	☐	1.000		7639152.18		A	0.3
7	☐	1.000		7515242.94		A	0.2
8	☐	1.000		7253940.79		A	1.0

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		14615129.09		A	0.7
2	☐	1.000		14262286.04		A	0.7
3	☐	1.000		14033627.43		A	0.7
4	☐	1.000		13555522.30		A	0.9
5	☐	1.000		13044370.50		A	0.6
6	☐	1.000		12627141.89		A	1.2
7	☐	1.000		12408462.73		A	0.6
8	☐	1.000		10944929.14		A	0.6

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		7091546.42		A	0.6
2	☐	1.000		6896795.87		A	0.1
3	☐	1.000		6654377.61		M	1.0
4	☐	1.000		6380615.39		P	0.1
5	☐	1.000		6133431.92		P	0.6
6	☐	1.000		5941965.88		P	0.1
7	☐	1.000		5742556.17		P	0.3
8	☐	1.000		5018000.97		P	0.4

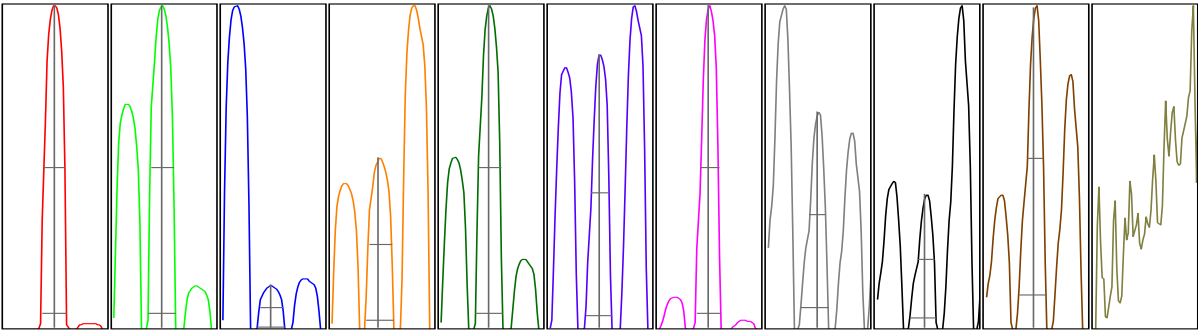
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7092719-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	10871	0.71	5.00	
24	128120	0.58	5.00	
25	17219	0.50	5.00	
26	20298	0.44	5.00	
59	98010	0.56	5.00	
113	16086	0.60	5.00	
115	188215	0.59	5.00	
206	60058	0.58	5.00	
207	55978	0.66	5.00	
208	131834	0.45	5.00	
220	117	2.62		

	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
Mass	Count	Count	Count	Count	Count
9	10895	10876	10947	10896	10740
24	128094	128762	128799	127962	126983
25	17252	17343	17220	17132	17146
26	20385	20357	20269	20319	20161
59	98148	98298	98242	98327	97034
113	16137	16137	16175	16051	15932
115	189477	188149	188748	188232	186471
206	60014	60069	60490	60184	59536
207	55942	55856	56381	56267	55445
208	131498	131877	132386	132399	131008
220	115	122	116	116	120

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	18262	9.00	8.9 - 9.1		0.741	0.900	
24	202652	23.95	23.9 - 24.1		0.790	0.900	
25	27092	24.95	24.9 - 25.1		0.792	0.900	
26	31816	25.90	25.9 - 26.1		0.830	0.900	
59	166837	58.95	58.9 - 59.1		0.783	0.900	
113	30730	113.00	112.9 - 113.1		0.759	0.900	
115	360978	115.00	114.9 - 115.1		0.732	0.900	
206	118259	206.00	205.9 - 206.1		0.787	0.900	
207	107077	206.95	206.9 - 207.1		0.753	0.900	
208	256501	207.95	207.9 - 208.1		0.790	0.900	
220			-				

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.4	V	Deflect	12.4	V
Extract 2	-120.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination	5.0	V
He Flow	0.0	mL/min	OctP RF	150	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	24748	0.61	
89	30913	0.36	
205	46715	0.59	

	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
Mass	Count	Count	Count	Count	Count
59	24725	24549	24759	24733	24974
89	30754	30888	30968	30895	31059
205	46467	46539	47171	46659	46739

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.5	V	Deflect	1.4	V
Extract 2	-120.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination	5.0	V
He Flow	4.1	mL/min	OctP RF	200	V			