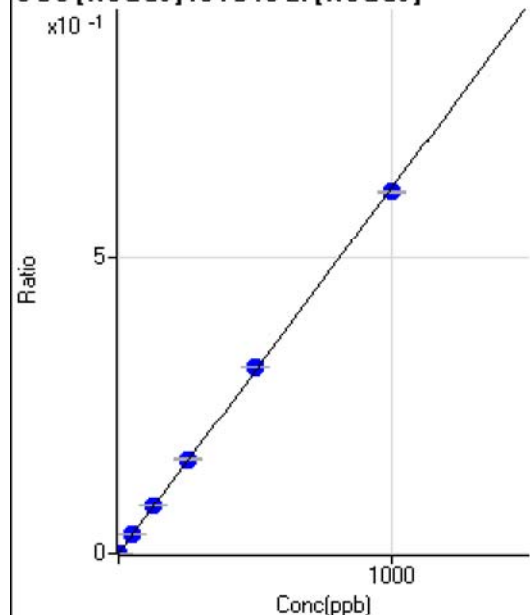


Batch Folder: D:\P8070718 MS.b\
Analysis File: P8070718 MS.batch.bin
DA Date-Time: 2018-07-09 05:38:45
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-07-07 13:43:48
2	004CALS.d	S01	2018-07-07 13:47:08
3	005CALS.d	S02	2018-07-07 13:51:13
4	006CALS.d	S03	2018-07-07 13:54:55
5	007CALS.d	S04	2018-07-07 13:58:36
6	008CALS.d	S05	2018-07-07 14:02:11
7	009CALS.d	S06	2018-07-07 14:05:41
8	010CALS.d	S07	2018-07-07 14:09:07
9	011CALS.d	S08	2018-07-07 14:12:28

9 Be [NoGas] ISTD:6 Li [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	50.00	0.0000	P	39.0
2	☐	0.100	0.086	137.04	0.0001	P	23.3
3	☐	1.000	1.056	1109.34	0.0007	P	6.9
4	☐	50.000	53.239	50005.80	0.0329	P	5.6
5	☐	125.000	131.373	126045.18	0.0812	P	0.6
6	☐	250.000	259.757	250525.99	0.1606	P	1.8
7	☐	500.000	511.388	502968.79	0.3162	P	0.2
8	☐	1000.000	990.908	998423.95	0.6126	P	0.8
9	☐			383.35	0.0002	P	16.4

$$y = 6.1822\text{E-}004 * x + 3.1405\text{E-}005$$

$$R = 0.9998$$

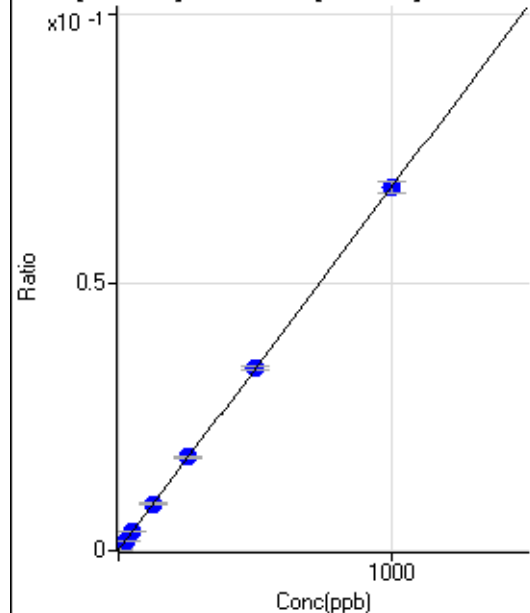
$$DL = 0.05946$$

$$BEC = 0.0508$$

Weight: <None>

Min Conc: 0

10 B [NoGas] ISTD:6 Li [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	119.45	0.0001	P	5.0
2	☐	2.500	1.609	297.24	0.0002	P	20.5
3	☐	25.000	24.659	2828.18	0.0017	P	6.3
4	☐	50.000	52.956	5565.23	0.0037	P	0.3
5	☐	125.000	126.940	13448.54	0.0087	P	5.2
6	☐	250.000	256.190	27176.68	0.0174	P	3.6
7	☐	500.000	499.843	53960.41	0.0339	P	2.1
8	☐	1000.000	998.152	110263.12	0.0677	P	3.2
9	☐			5012.24	0.0030	P	9.2

$$y = 6.7711\text{E-}005 * x + 7.4898\text{E-}005$$

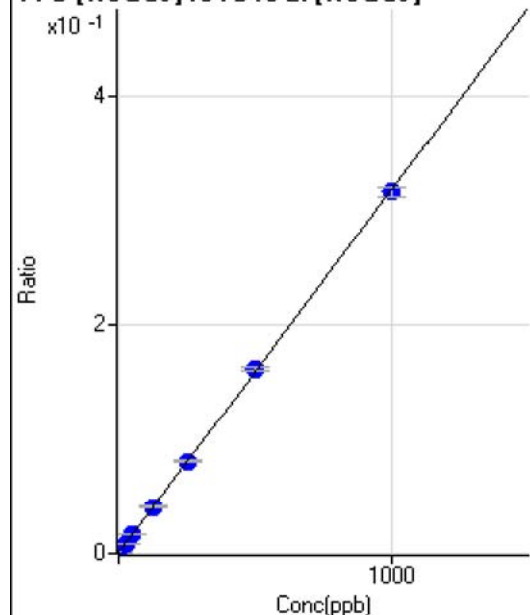
$$R = 1.0000$$

$$DL = 0.1665$$

$$BEC = 1.106$$

Weight: <None>

Min Conc: 0

11 B [NoGas] ISTD : 6 Li [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	430.58	0.0003	P	18.6
2	☐	2.500	2.513	1730.74	0.0011	P	0.4
3	☐	25.000	24.838	13259.43	0.0082	P	3.9
4	☐	50.000	51.032	25083.74	0.0165	P	4.2
5	☐	125.000	128.325	63803.76	0.0411	P	3.1
6	☐	250.000	254.289	126719.28	0.0812	P	1.3
7	☐	500.000	505.810	256636.02	0.1613	P	2.3
8	☐	1000.000	995.560	517020.36	0.3173	P	2.6
9	☐			23083.27	0.0138	P	12.0

$$y = 3.1840\text{E-}004 * x + 2.6987\text{E-}004$$

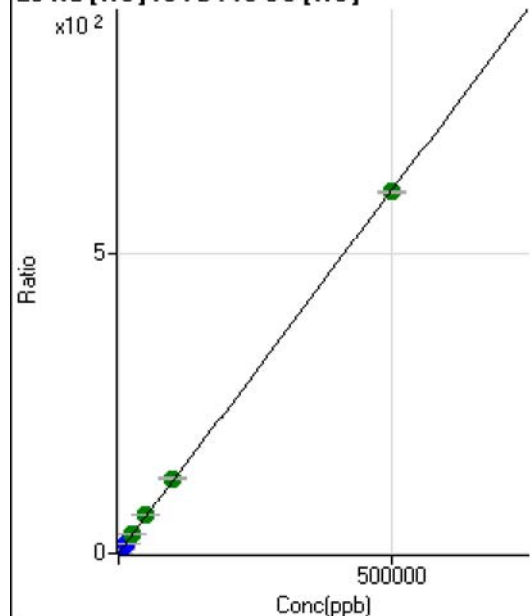
$$R = 1.0000$$

$$DL = 0.4735$$

$$BEC = 0.8476$$

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	6679.63	0.1169	P	2.9
2	☐	50.000	48.842	9981.69	0.1763	P	4.3
3	☐	500.000	495.797	42074.22	0.7191	P	0.3
4	☐	5000.000	5251.756	359509.61	6.4953	P	0.7
5	☐	12500.000	12941.666	833541.47	15.8349	P	1.5
6	☐	25000.000	26709.993	1814154.47	32.5568	A	0.9
7	☐	50000.000	51999.847	3464107.98	63.2719	A	1.0
8	☐	100000.00	104056.23	6527632.70	126.4955	A	1.2
9	☐	500000.00	498889.71	33780431.31	606.0294	A	0.4

$$y = 0.0012 * x + 0.1169$$

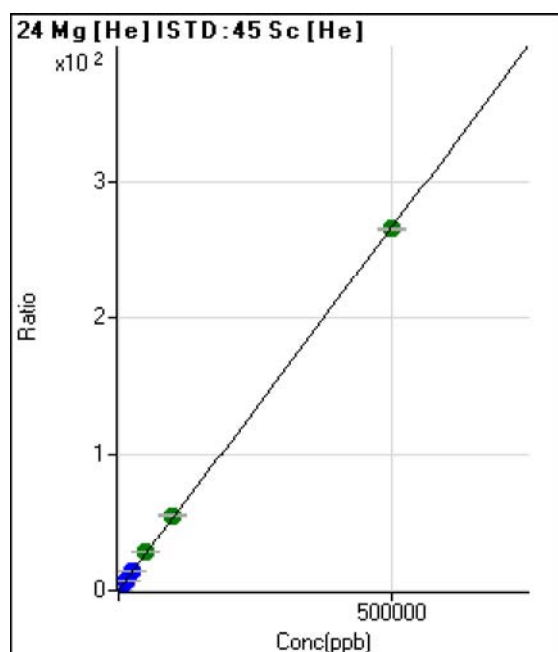
$$R = 1.0000$$

$$DL = 8.256$$

$$BEC = 96.29$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	194.46	0.0034	P	39.7
2	☐	50.000	51.709	1747.40	0.0309	P	9.3
3	☐	500.000	492.857	15525.72	0.2653	P	1.8
4	☐	5000.000	5185.563	152728.24	2.7594	P	0.9
5	☐	12500.000	12770.356	357423.65	6.7906	P	2.1
6	☐	25000.000	25947.121	768630.81	13.7938	P	1.1
7	☐	50000.000	51851.802	1509018.40	27.5617	A	0.8
8	☐	100000.00	104073.37	2854442.17	55.3166	A	1.6
9	☐	500000.00	498944.18	14781189.22	265.1837	A	0.8

$$y = 5.3148\text{E-}004 * x + 0.0034$$

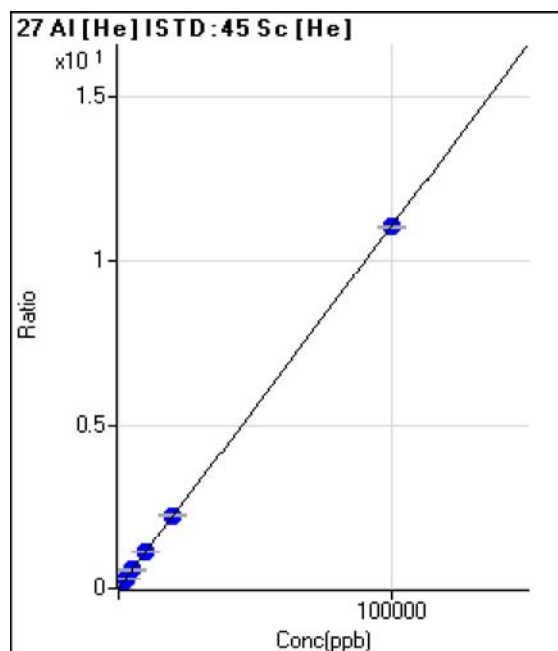
$$R = 1.0000$$

$$DL = 7.614$$

$$BEC = 6.387$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	22.22	0.0004	P	81.3
2	☐	2.000	6.737	63.89	0.0011	P	63.0
3	☐	20.000	22.197	166.68	0.0028	P	9.9
4	☐	1000.000	1005.749	6176.63	0.1116	P	1.0
5	☐	2500.000	2506.041	14613.72	0.2775	P	1.2
6	☐	5000.000	5029.704	31012.61	0.5565	P	0.5
7	☐	10000.000	10228.729	61939.03	1.1313	P	1.4
8	☐	20000.000	20353.542	116142.09	2.2507	P	1.7
9	☐	100000.00	99904.724	615709.71	11.0461	P	0.7

$$y = 1.1056\text{E-}004 * x + 3.9461\text{E-}004$$

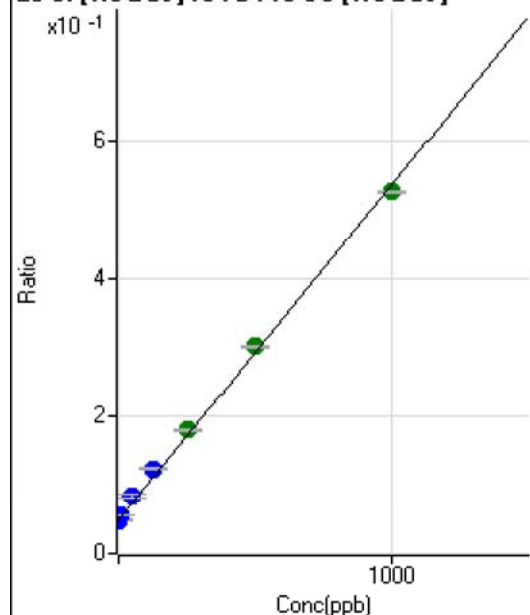
$$R = 1.0000$$

$$DL = 8.7$$

$$BEC = 3.569$$

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	280157.49	0.0487	P	0.9
2	☐	1.000	0.575	289458.63	0.0490	P	0.6
3	☐	10.000	16.199	335072.57	0.0566	P	1.6
4	☐	50.000	72.737	464253.56	0.0842	P	7.0
5	☐	125.000	154.983	715491.57	0.1244	P	0.6
6	☐	250.000	270.702	1033546.57	0.1809	A	1.4
7	☐	500.000	517.902	1736537.45	0.3016	A	0.8
8	☐	1000.000	980.927	2992385.66	0.5277	A	0.7
9	☐			477684.48	0.0831	P	1.9

$$y = 4.8825\text{E-}004 * x + 0.0487$$

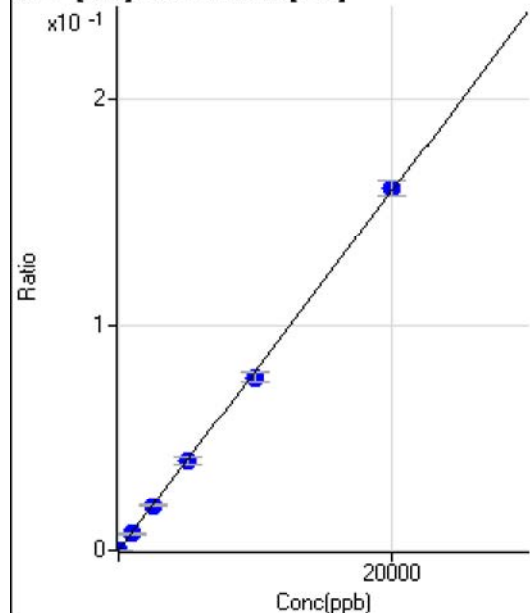
$$R = 0.9992$$

$$DL = 2.657$$

$$BEC = 99.8$$

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	-2.059	5.55	0.0001	P	86.8
2	☐	0.000	-1.606	5.56	0.0001	P	173.2
3	☐	0.000	3.664	8.33	0.0001	P	100.3
4	☐	1000.000	912.780	408.36	0.0074	P	16.3
5	☐	2500.000	2488.337	1050.09	0.0199	P	4.8
6	☐	5000.000	5005.208	2225.29	0.0400	P	8.4
7	☐	10000.000	9666.524	4220.26	0.0771	P	5.3
8	☐	20000.000	20171.255	8288.89	0.1607	P	4.2
9	☐			13.89	0.0002	P	91.6

$$y = 7.9591\text{E-}006 * x + 1.1372\text{E-}004$$

$$R = 0.9998$$

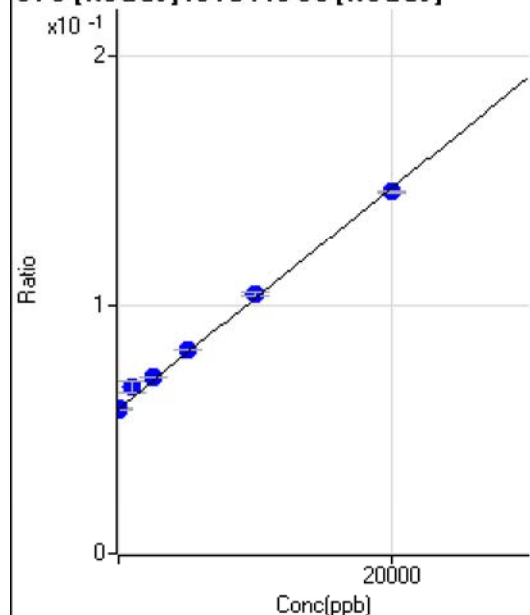
$$DL = 50.58$$

$$BEC = 14.29$$

Weight: <None>

Min Conc: 0

34 S [NoGas] ISTD:45 Sc [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	63.024	336510.05	0.0585	P	1.0
2	☐	0.000	3.850	344141.24	0.0583	P	0.1
3	☐	0.000	-66.874	342867.50	0.0580	P	1.1
4	☐	1000.000	2000.051	370083.07	0.0671	P	6.6
5	☐	2500.000	2892.001	408990.55	0.0711	P	0.2
6	☐	5000.000	5310.807	467735.38	0.0819	P	0.4
7	☐	10000.000	10295.564	598924.74	0.1040	P	1.5
8	☐	20000.000	19675.514	826422.08	0.1457	P	0.7
9	☐			335945.41	0.0585	P	1.4

$$y = 4.4460\text{E-}006 * x + 0.0583$$

$$R = 0.9986$$

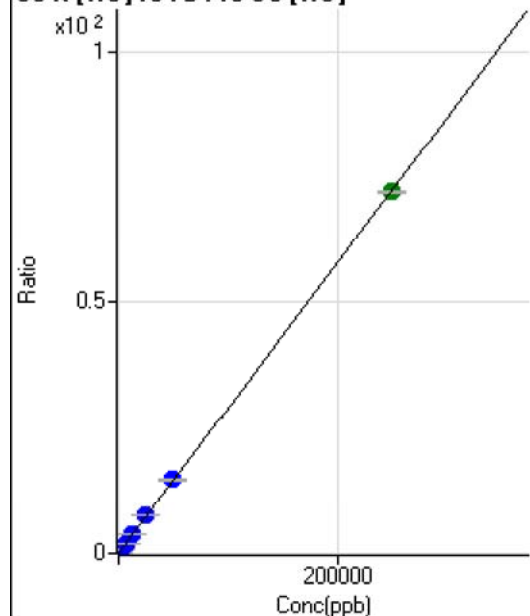
$$DL = 291.2$$

$$BEC = 1.31\text{E+}04$$

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	2769.85	0.0486	P	9.4
2	☐	50.000	49.750	3564.50	0.0629	P	5.4
3	☐	500.000	501.087	11318.94	0.1935	P	2.2
4	☐	2500.000	2665.622	45349.02	0.8193	P	0.9
5	☐	6250.000	6476.192	101123.97	1.9212	P	1.4
6	☐	12500.000	13221.080	215730.46	3.8715	P	0.9
7	☐	25000.000	25826.757	411514.36	7.5165	P	1.1
8	☐	50000.000	50930.389	762470.62	14.7753	P	1.0
9	☐	250000.00	249687.87	4027002.56	72.2467	A	0.7

$$y = 2.8915\text{E-}004 * x + 0.0486$$

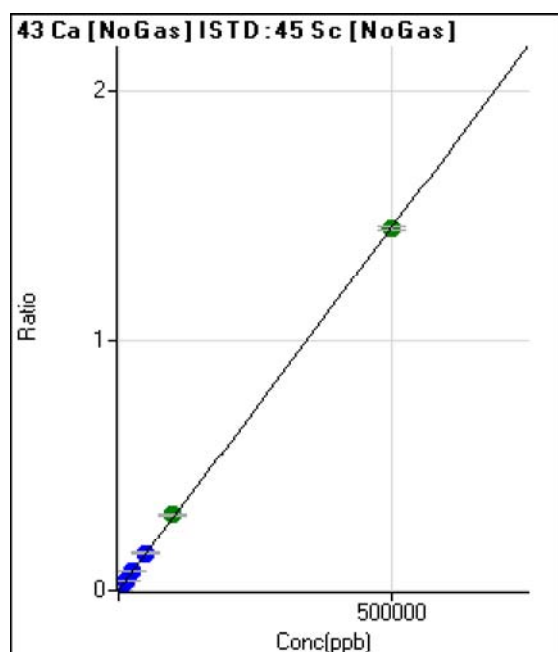
$$R = 1.0000$$

$$DL = 47.61$$

$$BEC = 167.9$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	763.94	0.0001	P	17.4
2	☐	50.000	43.443	1530.71	0.0003	P	8.3
3	☐	500.000	470.067	8872.63	0.0015	P	4.2
4	☐	5000.000	5223.525	84393.03	0.0153	P	7.8
5	☐	12500.000	12815.723	215057.41	0.0374	P	0.1
6	☐	25000.000	25646.578	426773.77	0.0747	P	0.3
7	☐	50000.000	51302.643	859532.33	0.1493	P	0.9
8	☐	100000.00	104462.84	1723054.75	0.3038	A	0.3
9	☐	500000.00	498934.74	8337310.95	1.4506	A	1.2

$$y = 2.9072\text{E-}006 * x + 1.3288\text{E-}004$$

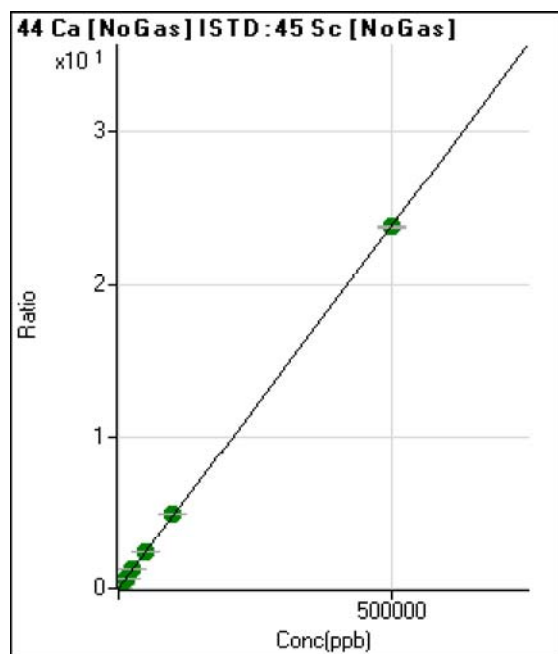
$$R = 1.0000$$

$$DL = 23.8$$

$$BEC = 45.71$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	22335.35	0.0039	P	0.5
2	☐	50.000	47.238	36245.07	0.0061	P	1.9
3	☐	500.000	473.265	156474.73	0.0264	P	1.1
4	☐	5000.000	5285.168	1410179.52	0.2559	A	6.7
5	☐	12500.000	12782.302	3527416.75	0.6133	A	0.3
6	☐	25000.000	25460.637	6957651.80	1.2178	A	0.8
7	☐	50000.000	50895.802	13993344.93	2.4304	A	1.2
8	☐	100000.00	102485.47	27731467.63	4.8900	A	0.4
9	☐	500000.00	499380.41	136860991.9	23.8125	A	0.7

$$y = 4.7676\text{E-}005 * x + 0.0039$$

$$R = 1.0000$$

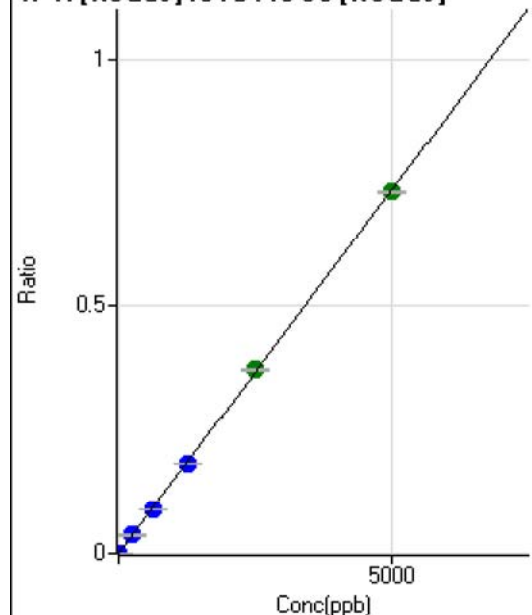
$$DL = 1.299$$

$$BEC = 81.48$$

Weight: <None>

Min Conc: 0

47 Ti [NoGas] ISTD : 45 Sc [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	100.01	0.0000	P	32.8
2	☐	0.500	0.537	569.48	0.0001	P	7.1
3	☐	5.000	4.933	4398.11	0.0007	P	3.2
4	☐	250.000	255.378	207275.86	0.0376	P	6.7
5	☐	625.000	617.863	523183.10	0.0910	P	0.2
6	☐	1250.000	1246.759	1048626.30	0.1835	P	0.7
7	☐	2500.000	2530.961	2145066.22	0.3726	A	1.1
8	☐	5000.000	4985.953	4162051.18	0.7339	A	0.9
9	☐			2172.50	0.0004	P	6.7

$$y = 1.4719E-004 * x + 1.7378E-005$$

$$R = 1.0000$$

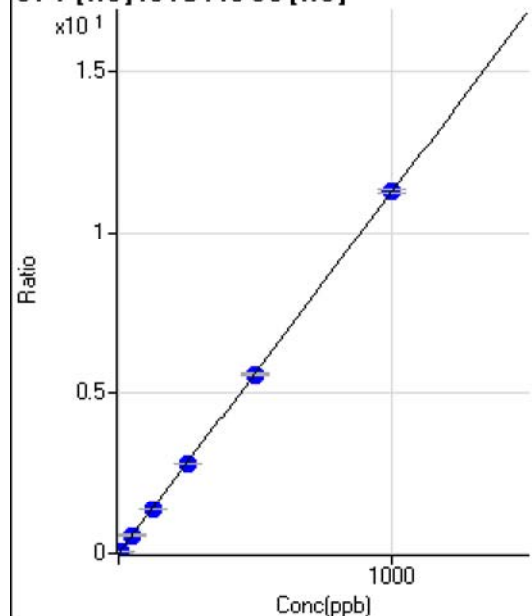
$$DL = 0.1163$$

$$BEC = 0.1181$$

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	20.00	0.0004	P	60.7
2	☐	0.500	0.458	312.23	0.0055	P	15.2
3	☐	5.000	4.626	3067.06	0.0524	P	5.5
4	☐	50.000	50.186	31288.47	0.5653	P	1.3
5	☐	125.000	123.001	72886.39	1.3850	P	1.9
6	☐	250.000	250.341	157051.71	2.8184	P	0.8
7	☐	500.000	495.785	305562.06	5.5814	P	1.4
8	☐	1000.000	1002.265	582243.40	11.2828	P	1.1
9	☐			265.56	0.0048	P	8.6

$$y = 0.0113 * x + 3.5359E-004$$

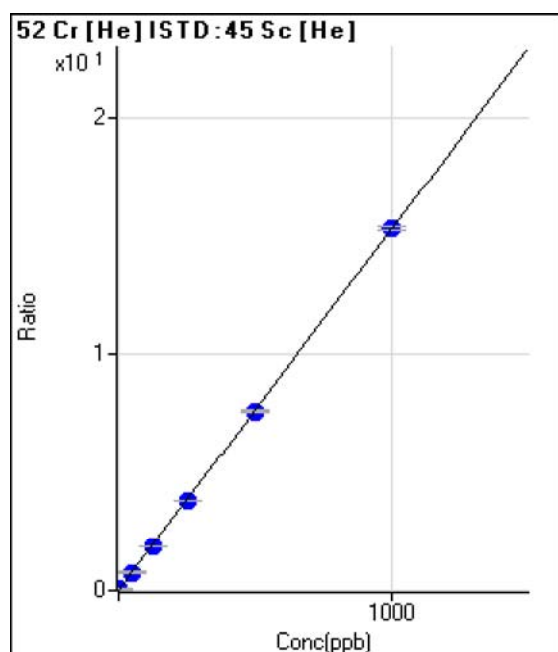
$$R = 1.0000$$

$$DL = 0.0572$$

$$BEC = 0.03141$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	667.81	0.0117	P	8.0
2	☐	0.200	0.220	852.26	0.0151	P	9.2
3	☐	2.000	1.933	2411.36	0.0412	P	3.3
4	☐	50.000	49.738	42665.03	0.7709	P	2.0
5	☐	125.000	123.123	99535.28	1.8910	P	1.7
6	☐	250.000	249.643	212987.47	3.8221	P	0.6
7	☐	500.000	496.157	415255.14	7.5847	P	1.1
8	☐	1000.000	1002.259	790047.97	15.3096	P	1.0
9	☐			30171.65	0.5413	P	0.7

$$y = 0.0153 * x + 0.0117$$

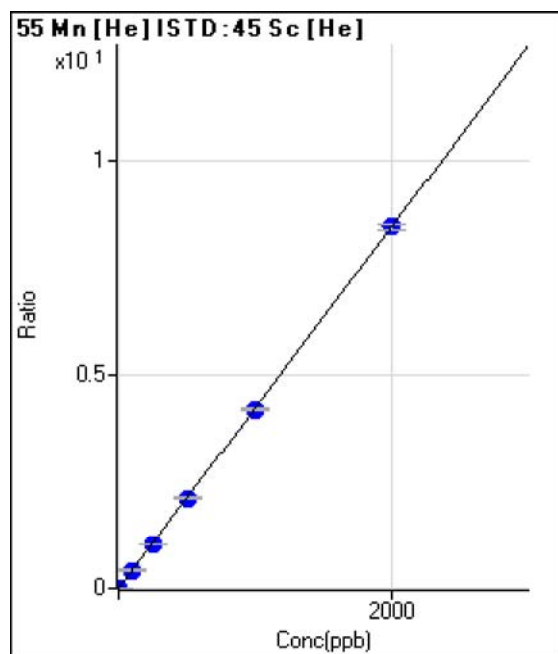
$$R = 1.0000$$

$$DL = 0.1845$$

$$BEC = 0.767$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	46.67	0.0008	P	28.2
2	☐	0.100	0.186	91.11	0.0016	P	7.8
3	☐	1.000	1.172	337.79	0.0058	P	8.0
4	☐	100.000	100.601	23574.57	0.4259	P	1.0
5	☐	250.000	246.860	54956.65	1.0440	P	1.0
6	☐	500.000	503.740	118662.94	2.1295	P	1.0
7	☐	1000.000	992.516	229643.46	4.1948	P	1.9
8	☐	2000.000	2003.169	436843.97	8.4655	P	1.4
9	☐			2025.74	0.0363	P	9.0

$$y = 0.0042 * x + 8.2153E-004$$

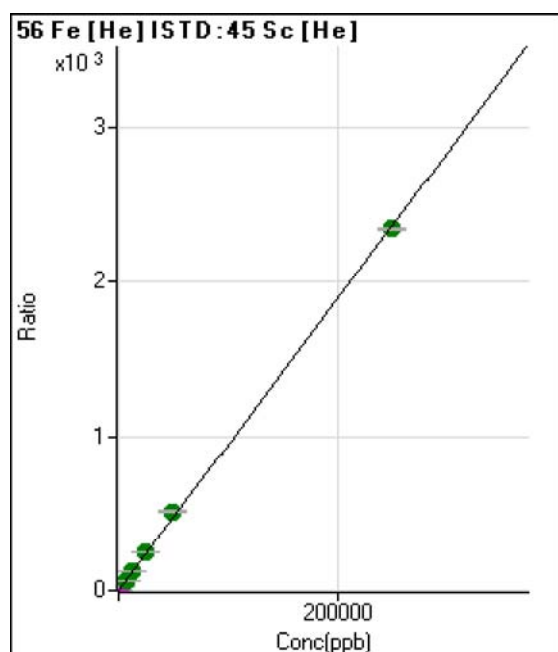
$$R = 1.0000$$

$$DL = 0.1648$$

$$BEC = 0.1944$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1692.75	0.0296	P	10.5
2	☐	5.000	5.263	4489.76	0.0793	P	1.9
3	☐	50.000	51.661	30233.31	0.5167	P	2.1
4	☐	2500.000	2719.720	1420983.58	25.6734	M	0.3
5	☐	6250.000	6710.786	3331630.72	63.3044	A	2.3
6	☐	12500.000	13559.864	7126164.51	127.8830	A	1.1
7	☐	25000.000	26847.846	13860671.61	253.1729	A	1.4
8	☐	50000.000	54488.831	26514242.49	513.7945	A	1.1
9	☐	250000.00	248850.73	130790418.6	2,346.396	A	0.2

$$y = 0.0094 * x + 0.0296$$

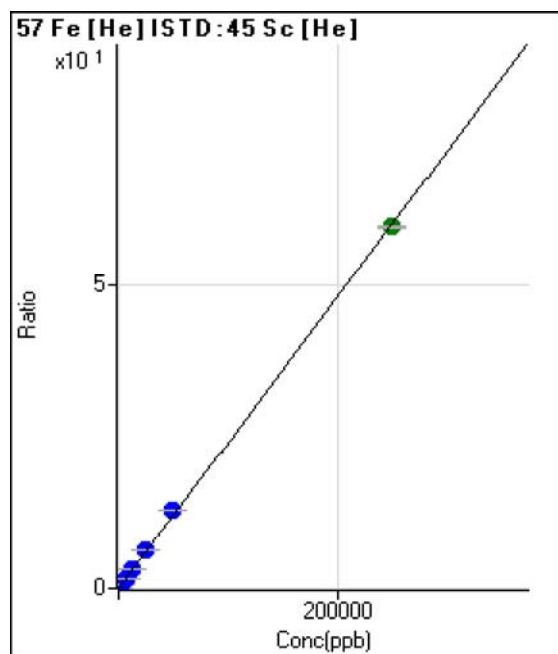
$$R = 0.9998$$

$$DL = 0.9878$$

$$BEC = 3.144$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	61.11	0.0011	P	34.4
2	☐	5.000	6.420	148.15	0.0026	P	13.6
3	☐	50.000	54.533	829.68	0.0142	P	1.5
4	☐	2500.000	2691.786	35891.23	0.6484	P	2.2
5	☐	6250.000	6571.429	83225.26	1.5815	P	2.2
6	☐	12500.000	13409.459	179765.74	3.2260	P	0.8
7	☐	25000.000	26652.338	350970.61	6.4110	P	1.7
8	☐	50000.000	54107.951	671591.57	13.0141	P	0.9
9	☐	250000.00	248957.74	3337452.27	59.8755	A	0.6

$$y = 2.4050E-004 * x + 0.0011$$

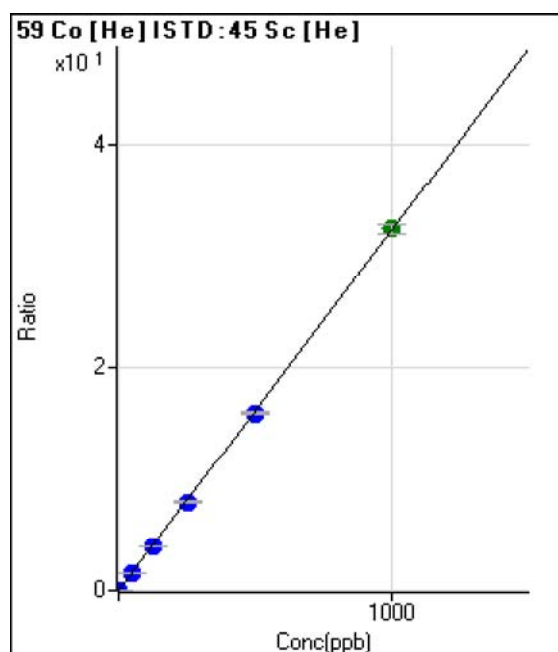
$$R = 0.9998$$

$$DL = 4.568$$

$$BEC = 4.432$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	98.89	0.0017	P	10.2
2	☐	0.100	0.082	248.90	0.0044	P	8.6
3	☐	1.000	0.916	1834.60	0.0314	P	1.6
4	☐	50.000	49.509	88705.45	1.6027	P	0.7
5	☐	125.000	120.808	205706.86	3.9083	P	1.6
6	☐	250.000	246.708	444627.03	7.9794	P	1.2
7	☐	500.000	492.329	871693.60	15.9220	P	1.2
8	☐	1000.000	1005.207	1677325.18	32.5067	A	2.7
9	☐			20579.83	0.3692	P	1.0

$$y = 0.0323 * x + 0.0017$$

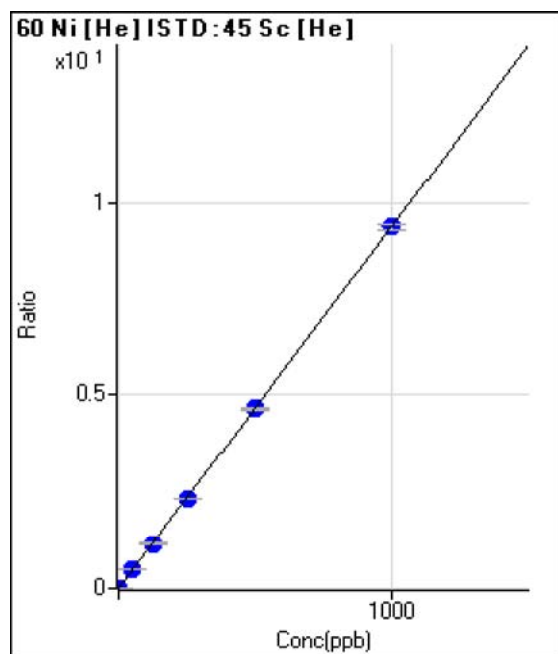
$$R = 0.9999$$

$$DL = 0.01632$$

$$BEC = 0.05355$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	77.78	0.0014	P	13.2
2	☐	0.100	0.102	131.12	0.0023	P	16.0
3	☐	1.000	1.138	702.25	0.0120	P	0.7
4	☐	50.000	50.820	26390.79	0.4768	P	1.1
5	☐	125.000	124.254	61258.60	1.1639	P	1.7
6	☐	250.000	250.374	130611.80	2.3438	P	0.7
7	☐	500.000	497.302	254793.57	4.6540	P	1.4
8	☐	1000.000	1001.307	483473.76	9.3694	P	1.7
9	☐			14932.67	0.2679	P	1.7

$$y = 0.0094 * x + 0.0014$$

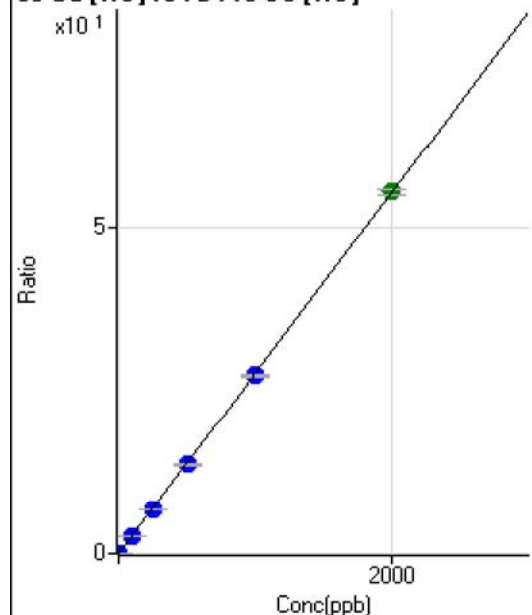
$$R = 1.0000$$

$$DL = 0.05768$$

$$BEC = 0.1453$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD: ⁴⁵Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	418.90	0.0073	P	4.2
2	☐	0.200	0.182	698.92	0.0123	P	5.1
3	☐	2.000	1.892	3482.72	0.0595	P	1.5
4	☐	100.000	100.379	153640.47	2.7759	P	0.2
5	☐	250.000	245.280	356521.68	6.7723	P	1.1
6	☐	500.000	497.099	764385.75	13.7177	P	1.0
7	☐	1000.000	985.955	1489132.67	27.2007	P	1.8
8	☐	2000.000	2008.319	2858662.77	55.3982	A	1.7
9	☐			5367.79	0.0963	P	0.4

$$y = 0.0276 * x + 0.0073$$

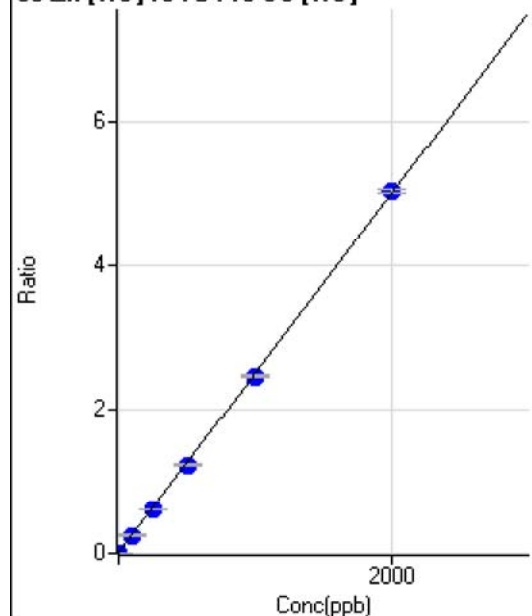
$$R = 1.0000$$

$$DL = 0.03367$$

$$BEC = 0.2657$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD: ⁴⁵Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	405.57	0.0071	P	7.4
2	☐	0.200	0.242	436.68	0.0077	P	6.9
3	☐	2.000	1.883	690.03	0.0118	P	1.4
4	☐	100.000	98.501	14001.71	0.2530	P	1.3
5	☐	250.000	245.946	32694.26	0.6210	P	0.8
6	☐	500.000	492.571	68910.10	1.2367	P	0.9
7	☐	1000.000	983.691	134823.01	2.4626	P	1.1
8	☐	2000.000	2010.593	259359.55	5.0260	P	1.1
9	☐			1791.27	0.0321	P	3.1

$$y = 0.0025 * x + 0.0071$$

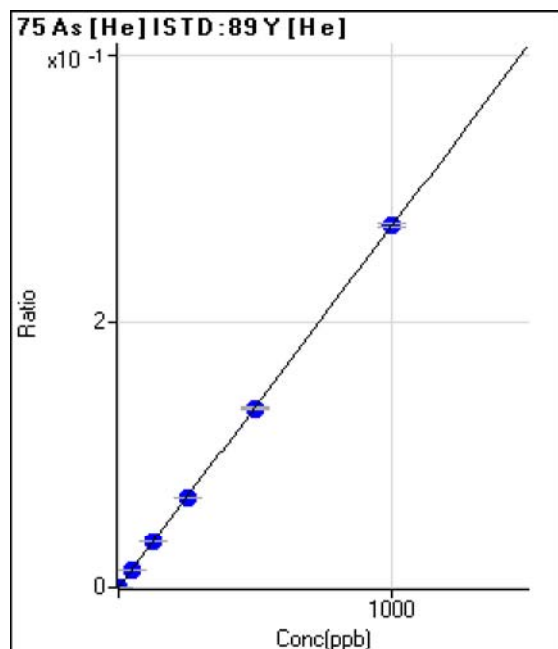
$$R = 0.9999$$

$$DL = 0.6305$$

$$BEC = 2.842$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	3.70	0.0000	P	52.6
2	☐	0.100	0.074	11.11	0.0000	P	34.5
3	☐	1.000	0.905	96.92	0.0003	P	23.3
4	☐	50.000	49.795	4923.76	0.0136	P	1.7
5	☐	125.000	127.043	11742.73	0.0346	P	1.5
6	☐	250.000	250.325	24871.18	0.0681	P	0.4
7	☐	500.000	494.548	48545.98	0.1346	P	1.2
8	☐	1000.000	1002.399	93227.01	0.2727	P	1.1
9	☐			156.17	0.0004	P	9.0

$$y = 2.7207\text{E-}004 * x + 1.0165\text{E-}005$$

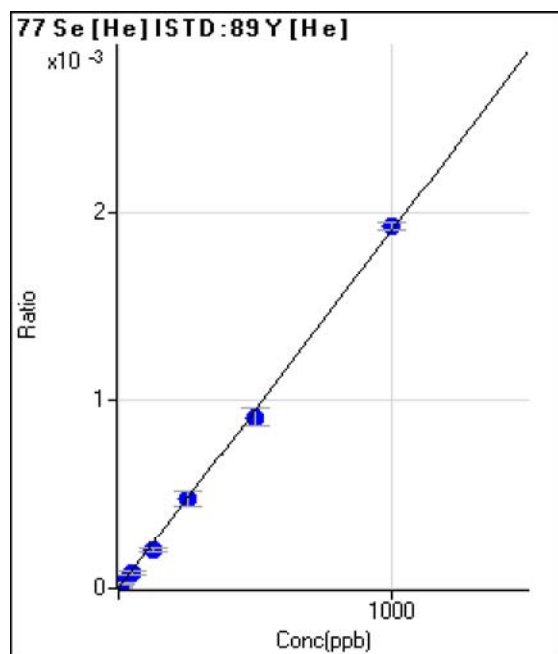
$$R = 1.0000$$

$$DL = 0.05899$$

$$BEC = 0.03736$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	1.542	1.11	0.0000	P	173.2
3	☐	5.000	12.374	8.89	0.0000	P	57.4
4	☐	50.000	43.445	30.00	0.0001	P	19.2
5	☐	125.000	108.632	70.00	0.0002	P	10.9
6	☐	250.000	251.202	174.45	0.0005	P	16.3
7	☐	500.000	479.731	328.90	0.0009	P	9.8
8	☐	1000.000	1012.170	657.81	0.0019	P	2.0
9	☐			0.00	0.0000	P	

$$y = 1.9011\text{E-}006 * x + 0.0000\text{E+}000$$

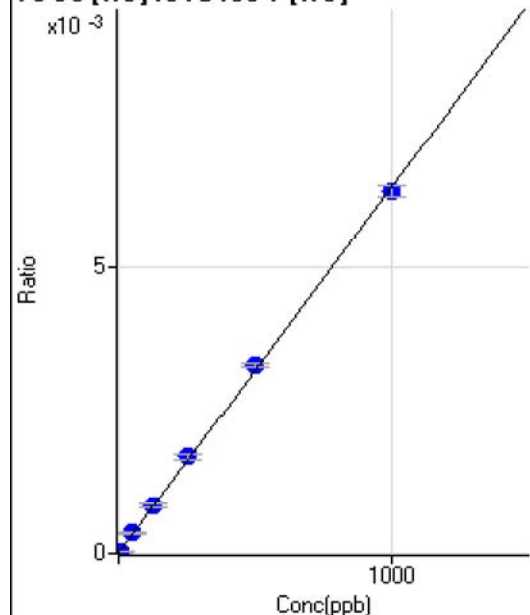
$$R = 0.9995$$

$$DL = 0$$

$$BEC = 0$$

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	2.47	0.0000	P	116.3
2	☐	0.500	1.577	6.17	0.0000	P	63.7
3	☐	5.000	4.553	13.58	0.0000	P	7.9
4	☐	50.000	54.124	127.78	0.0004	P	14.0
5	☐	125.000	131.340	286.43	0.0008	P	9.0
6	☐	250.000	264.207	617.30	0.0017	P	6.7
7	☐	500.000	512.438	1180.93	0.0033	P	2.4
8	☐	1000.000	989.232	2157.60	0.0063	P	3.0
9	☐			1.85	0.0000	P	99.9

$$y = 6.3738\text{E-}006 * x + 6.8850\text{E-}006$$

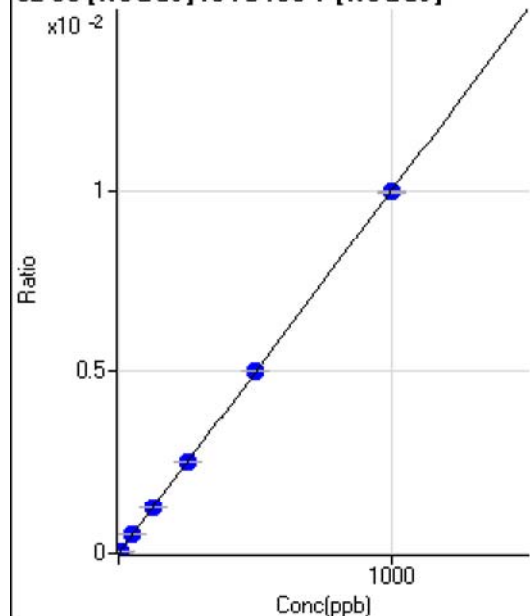
$$R = 0.9998$$

$$DL = 3.768$$

$$BEC = 1.08$$

Weight: <None>

Min Conc: 0

82 Se [NoGas] ISTD:89 Y [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	-0.05	0.0000	P	-37877.
2	☐	0.500	-0.124	-12.52	0.0000	P	-283.3
3	☐	5.000	4.554	458.25	0.0000	P	12.9
4	☐	50.000	52.222	4893.19	0.0005	P	6.4
5	☐	125.000	126.187	12336.77	0.0013	P	0.5
6	☐	250.000	252.275	24746.47	0.0025	P	0.4
7	☐	500.000	502.385	50047.10	0.0050	P	0.8
8	☐	1000.000	997.982	100088.77	0.0100	P	0.4
9	☐			73.95	0.0000	P	14.2

$$y = 9.9823\text{E-}006 * x - 1.0954\text{E-}008$$

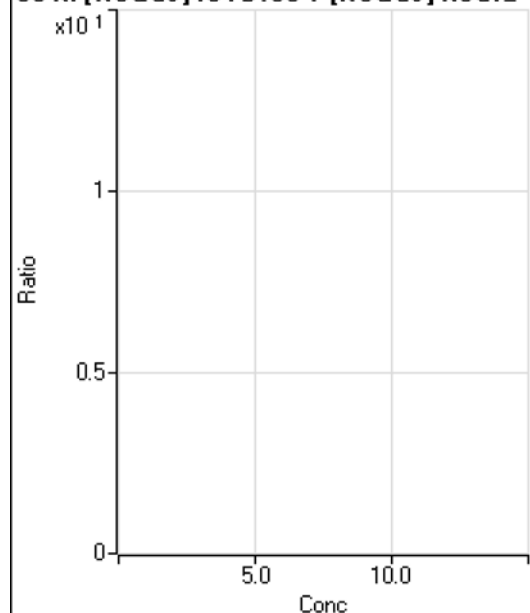
$$R = 1.0000$$

$$DL = 1.247$$

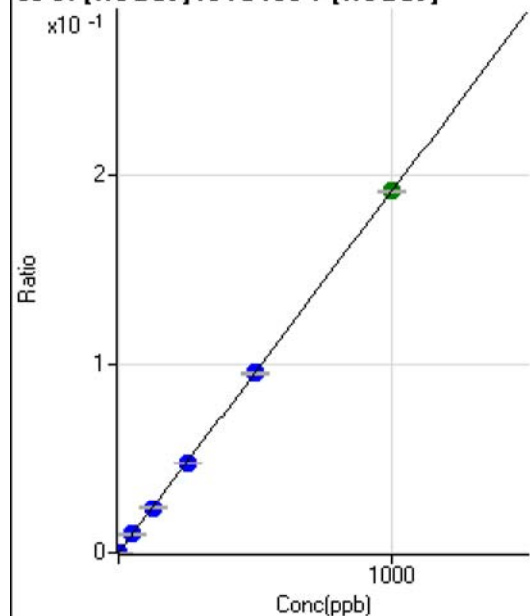
$$BEC = -0.001097$$

Weight: <None>

Min Conc: 0

83 Kr [NoGas] ISTD:89 Y [NoGas] No av.

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			325.56	0.0000	P	8.0
2	☐			368.90	0.0000	P	11.1
3	☐			338.90	0.0000	P	3.4
4	☐			322.23	0.0000	P	13.3
5	☐			341.12	0.0000	P	2.5
6	☐			350.01	0.0000	P	14.9
7	☐			322.23	0.0000	P	18.0
8	☐			370.01	0.0000	P	11.4
9	☐			321.12	0.0000	P	9.6

86 Sr [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	516.70	0.0001	P	20.6
2	☐	0.100	0.124	761.17	0.0001	P	15.9
3	☐	1.000	0.997	2453.12	0.0002	P	8.9
4	☐	50.000	50.829	91816.35	0.0098	P	6.5
5	☐	125.000	124.398	233730.58	0.0239	P	0.7
6	☐	250.000	247.902	466812.89	0.0475	P	0.5
7	☐	500.000	496.798	949506.51	0.0951	P	0.8
8	☐	1000.000	1002.159	1927850.06	0.1919	A	0.2
9	☐			9467.55	0.0010	P	2.1

$$y = 1.9141\text{E-}004 * x + 5.2567\text{E-}005$$

$$R = 1.0000$$

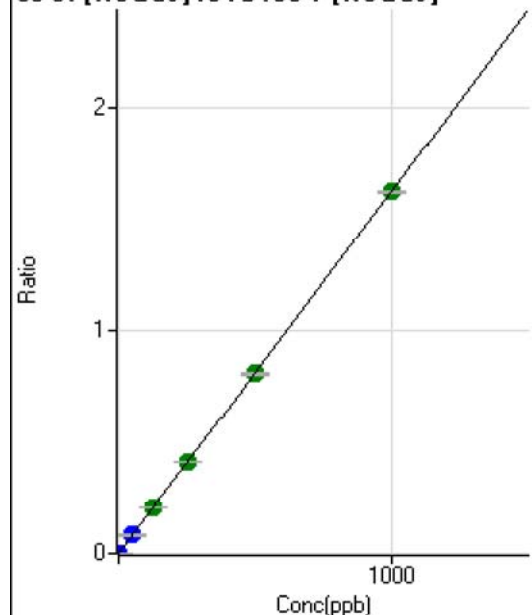
$$DL = 0.1695$$

$$BEC = 0.2746$$

Weight: <None>

Min Conc: 0

88 Sr [NoGas] ISTD:89 Y [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	205.57	0.0000	P	21.4
2	☐	0.100	0.104	1891.89	0.0002	P	10.5
3	☐	1.000	1.002	16644.14	0.0017	P	6.6
4	☐	50.000	51.748	790682.74	0.0842	P	6.2
5	☐	125.000	127.199	2027353.43	0.2070	A	0.8
6	☐	250.000	253.016	4045973.01	0.4117	A	0.4
7	☐	500.000	497.604	8080500.70	0.8097	A	0.9
8	☐	1000.000	1000.082	16349840.29	1.6274	A	0.6
9	☐			76000.48	0.0076	P	1.9

$$y = 0.0016 * x + 2.0902E-005$$

$$R = 1.0000$$

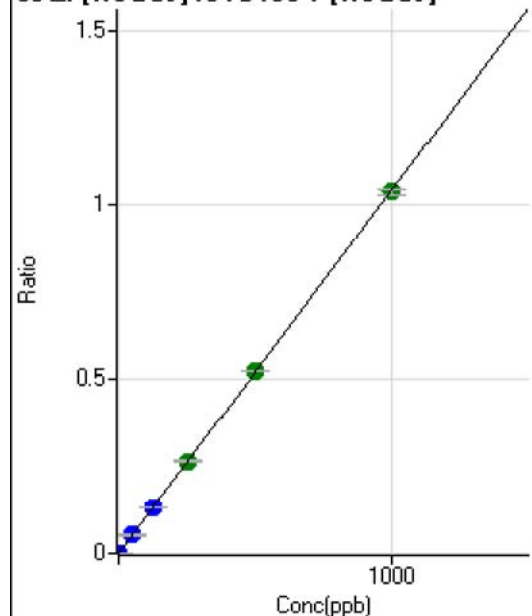
$$DL = 0.008254$$

$$BEC = 0.01285$$

Weight: <None>

Min Conc: 0

90 Zr [NoGas] ISTD:89 Y [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	675.05	0.0001	P	21.2
2	☐	0.100	0.081	1530.71	0.0002	P	4.0
3	☐	1.000	0.957	10746.44	0.0011	P	2.3
4	☐	50.000	50.362	493348.14	0.0525	P	5.8
5	☐	125.000	124.669	1272901.37	0.1300	P	0.7
6	☐	250.000	255.174	2613419.57	0.2660	A	0.9
7	☐	500.000	503.136	5232556.84	0.5243	A	0.5
8	☐	1000.000	997.162	10438831.66	1.0391	A	1.8
9	☐			3289.42	0.0003	P	2.3

$$y = 0.0010 * x + 6.8718E-005$$

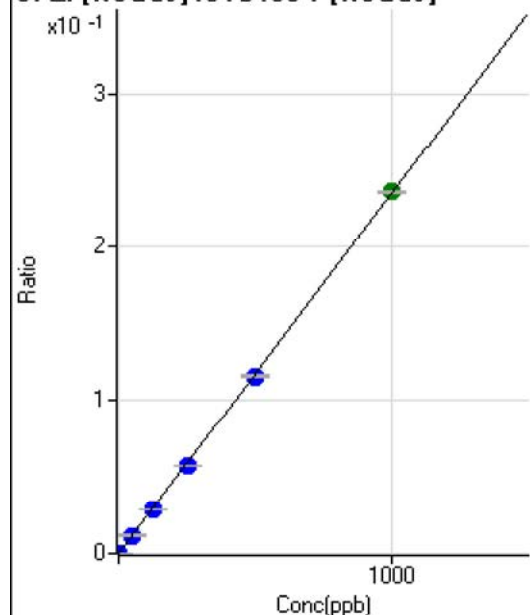
$$R = 1.0000$$

$$DL = 0.04188$$

$$BEC = 0.06595$$

Weight: <None>

Min Conc: 0

91 Zr [NoGas] ISTD:89 Y [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	158.34	0.0000	P	8.8
2	☐	0.100	0.088	366.69	0.0000	P	4.0
3	☐	1.000	0.939	2389.24	0.0002	P	0.6
4	☐	50.000	49.465	109362.71	0.0117	P	6.5
5	☐	125.000	122.092	281403.31	0.0287	P	0.6
6	☐	250.000	244.700	565721.17	0.0576	P	0.4
7	☐	500.000	492.388	1155903.58	0.1158	P	0.2
8	☐	1000.000	1005.521	2376269.91	0.2365	A	0.2
9	☐			708.38	0.0001	P	3.1

$$y = 2.3520\text{E-}004 * x + 1.6116\text{E-}005$$

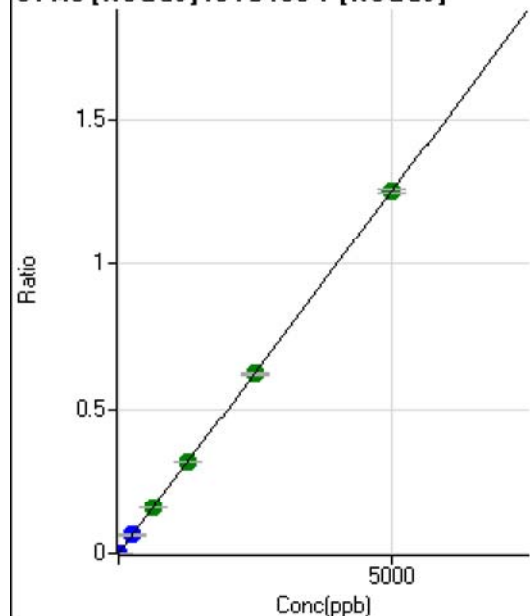
$$R = 0.9999$$

$$DL = 0.01807$$

$$BEC = 0.06852$$

Weight: <None>

Min Conc: 0

94 Mo [NoGas] ISTD:89 Y [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	297.24	0.0000	P	8.6
2	☐	0.500	0.467	1469.60	0.0001	P	4.3
3	☐	5.000	4.774	12361.76	0.0012	P	1.4
4	☐	250.000	255.894	601988.72	0.0641	P	6.9
5	☐	625.000	630.233	1546838.34	0.1579	A	0.9
6	☐	1250.000	1267.615	3121348.70	0.3176	A	0.3
7	☐	2500.000	2489.972	6225965.76	0.6239	A	1.0
8	☐	5000.000	4999.662	12585437.35	1.2527	A	0.9
9	☐			16438.35	0.0017	P	1.0

$$y = 2.5055\text{E-}004 * x + 3.0251\text{E-}005$$

$$R = 1.0000$$

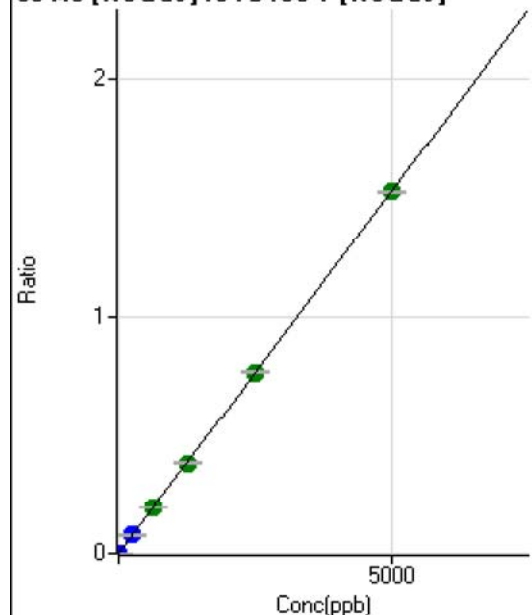
$$DL = 0.03099$$

$$BEC = 0.1207$$

Weight: <None>

Min Conc: 0

95 Mo [NoGas] ISTD : 89 Y [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	86.12	0.0000	P	20.8
2	☐	0.500	0.464	1505.71	0.0002	P	5.2
3	☐	5.000	4.735	14697.43	0.0015	P	4.3
4	☐	250.000	256.432	736612.57	0.0785	P	7.0
5	☐	625.000	631.112	1891902.41	0.1932	A	0.7
6	☐	1250.000	1256.209	3778236.72	0.3845	A	0.6
7	☐	2500.000	2494.832	7619847.91	0.7636	A	1.3
8	☐	5000.000	4999.946	15374670.48	1.5303	A	0.7
9	☐			26808.07	0.0027	P	3.4

$$y = 3.0606\text{E-}004 * x + 8.7764\text{E-}006$$

$$R = 1.0000$$

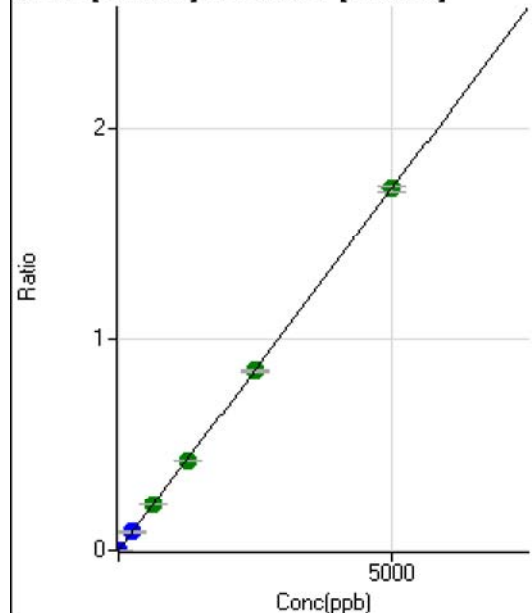
$$DL = 0.01793$$

$$BEC = 0.02868$$

Weight: <None>

Min Conc: 0

96 Mo [NoGas] ISTD : 89 Y [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	194.46	0.0000	P	33.3
2	☐	0.500	0.467	1797.43	0.0002	P	2.5
3	☐	5.000	4.807	16819.49	0.0017	P	1.6
4	☐	250.000	254.391	818933.04	0.0873	P	6.9
5	☐	625.000	630.793	2118846.23	0.2163	A	1.0
6	☐	1250.000	1254.802	4228856.34	0.4303	A	0.4
7	☐	2500.000	2487.927	8514632.83	0.8532	A	1.0
8	☐	5000.000	5003.893	17240574.86	1.7161	A	1.2
9	☐			30855.50	0.0031	P	3.5

$$y = 3.4294\text{E-}004 * x + 1.9830\text{E-}005$$

$$R = 1.0000$$

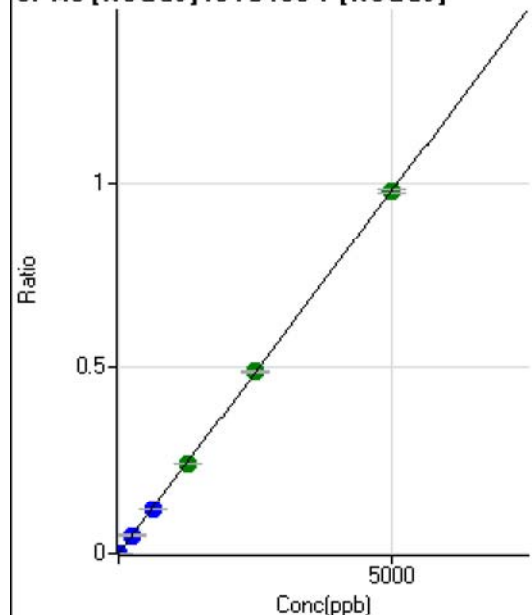
$$DL = 0.05781$$

$$BEC = 0.05782$$

Weight: <None>

Min Conc: 0

97 Mo [NoGas] ISTD : 89 Y [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	75.00	0.0000	P	44.6
2	☐	0.500	0.474	1000.09	0.0001	P	11.5
3	☐	5.000	4.883	9695.54	0.0010	P	2.5
4	☐	250.000	250.637	459710.04	0.0490	P	7.2
5	☐	625.000	615.183	1177562.55	0.1202	P	0.9
6	☐	1250.000	1254.164	2408676.40	0.2451	A	0.2
7	☐	2500.000	2509.629	4894525.50	0.4905	A	0.9
8	☐	5000.000	4995.340	9808164.02	0.9763	A	1.0
9	☐			17044.73	0.0017	P	2.2

$$y = 1.9543\text{E-}004 * x + 7.6348\text{E-}006$$

$$R = 1.0000$$

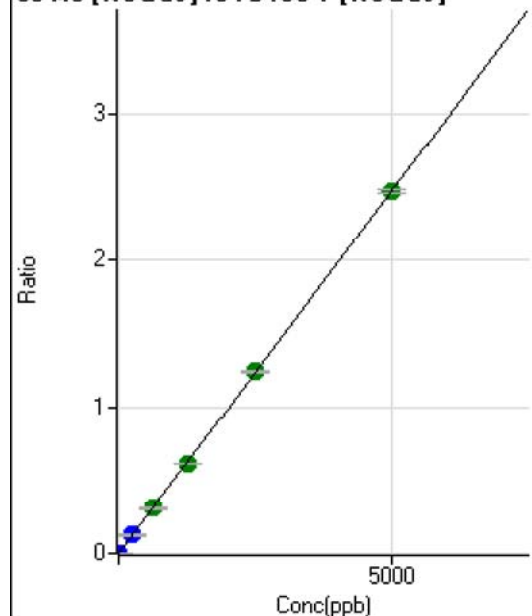
$$DL = 0.05231$$

$$BEC = 0.03907$$

Weight: <None>

Min Conc: 0

98 Mo [NoGas] ISTD : 89 Y [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	80.56	0.0000	P	46.8
2	☐	0.500	0.466	2383.65	0.0002	P	3.0
3	☐	5.000	4.811	24080.65	0.0024	P	2.0
4	☐	250.000	254.029	1179937.39	0.1257	P	6.7
5	☐	625.000	622.756	3018331.41	0.3082	A	0.3
6	☐	1250.000	1248.302	6070353.13	0.6177	A	0.3
7	☐	2500.000	2504.514	12367932.92	1.2394	A	1.0
8	☐	5000.000	4998.247	24849206.11	2.4734	A	1.1
9	☐			43900.17	0.0044	P	3.7

$$y = 4.9485\text{E-}004 * x + 8.1798\text{E-}006$$

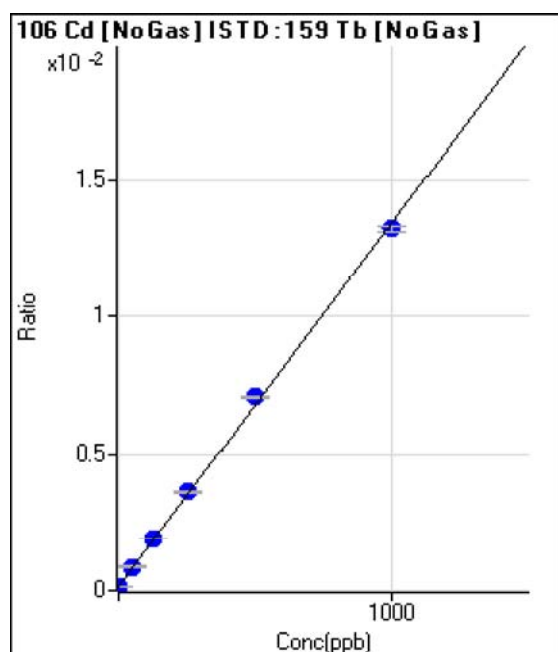
$$R = 1.0000$$

$$DL = 0.02323$$

$$BEC = 0.01653$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1691.85	0.0001	P	8.7
2	☐	0.100	0.398	1786.31	0.0002	P	4.2
3	☐	1.000	1.346	1930.79	0.0002	P	4.2
4	☐	50.000	54.145	9531.61	0.0009	P	2.9
5	☐	125.000	129.974	21732.28	0.0019	P	0.8
6	☐	250.000	261.270	41918.88	0.0036	P	1.6
7	☐	500.000	521.092	84830.56	0.0071	P	1.3
8	☐	1000.000	985.807	166696.99	0.0132	P	1.4
9	☐			1594.62	0.0001	P	9.1

$$y = 1.3267\text{E-}005 * x + 1.4636\text{E-}004$$

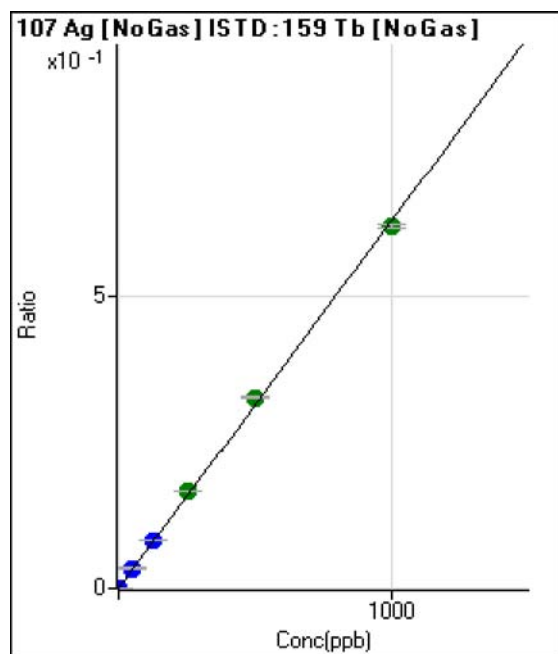
$$R = 0.9996$$

$$DL = 2.874$$

$$BEC = 11.03$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	55.56	0.0000	P	22.6
2	☐	0.100	0.096	766.73	0.0001	P	10.4
3	☐	1.000	1.039	7766.51	0.0007	P	5.0
4	☐	50.000	54.745	380245.60	0.0345	P	5.7
5	☐	125.000	132.300	969633.16	0.0835	P	0.8
6	☐	250.000	267.972	1961704.30	0.1691	A	0.1
7	☐	500.000	518.846	3933308.51	0.3273	A	0.4
8	☐	1000.000	984.934	7832327.26	0.6214	A	1.0
9	☐			1063.99	0.0001	P	3.5

$$y = 6.3088\text{E-}004 * x + 4.8027\text{E-}006$$

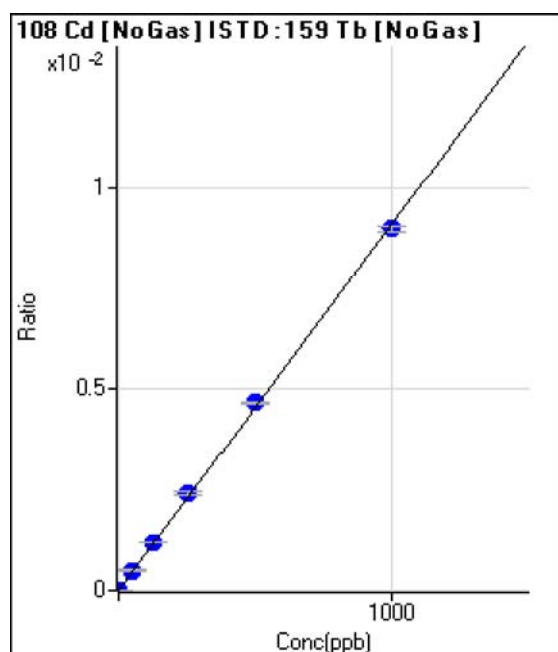
$$R = 0.9996$$

$$DL = 0.005165$$

$$BEC = 0.007613$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	9.72	0.0000	P	64.8
2	☐	0.100	0.181	29.17	0.0000	P	49.8
3	☐	1.000	1.208	138.89	0.0000	P	9.3
4	☐	50.000	53.368	5344.24	0.0005	P	6.6
5	☐	125.000	129.589	13684.99	0.0012	P	1.6
6	☐	250.000	266.597	28107.41	0.0024	P	2.6
7	☐	500.000	511.572	55850.14	0.0046	P	1.1
8	☐	1000.000	989.323	113290.18	0.0090	P	1.5
9	☐			37.50	0.0000	P	55.8

$$y = 9.0844\text{E-}006 * x + 8.3804\text{E-}007$$

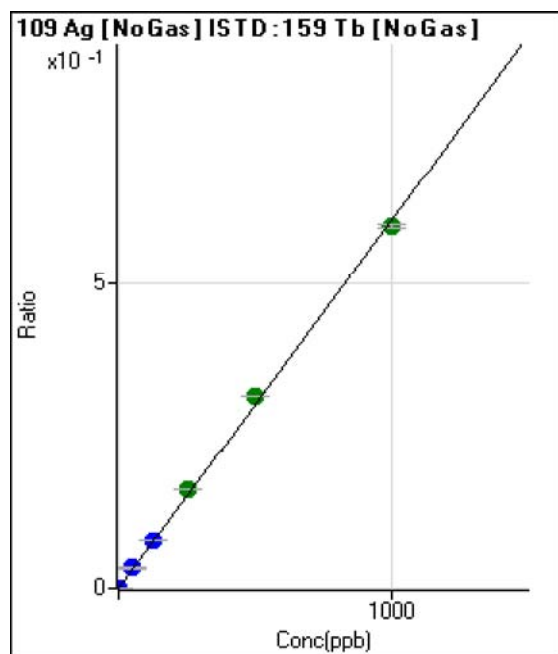
$$R = 0.9997$$

$$DL = 0.1794$$

$$BEC = 0.09225$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	47.22	0.0000	P	53.2
2	☐	0.100	0.086	661.16	0.0001	P	22.4
3	☐	1.000	1.043	7446.85	0.0006	P	3.2
4	☐	50.000	55.217	366746.21	0.0333	P	6.0
5	☐	125.000	131.561	922154.67	0.0794	P	1.2
6	☐	250.000	269.525	1886978.23	0.1626	A	0.3
7	☐	500.000	520.095	3770858.59	0.3138	A	0.2
8	☐	1000.000	983.990	7483380.89	0.5937	A	1.2
9	☐			883.41	0.0001	P	5.6

$$y = 6.0336\text{E-}004 * x + 4.0725\text{E-}006$$

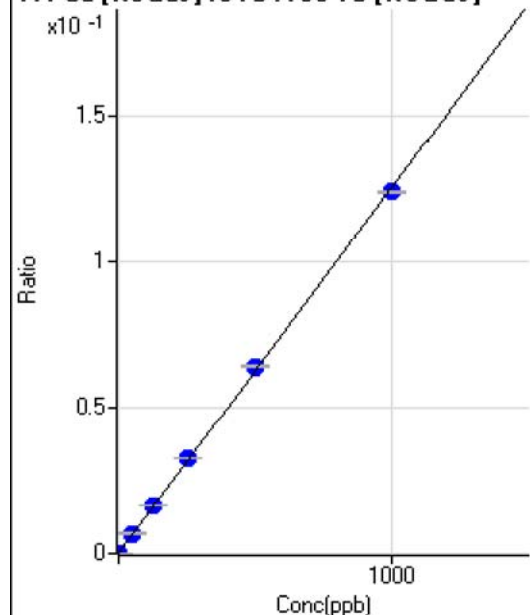
$$R = 0.9995$$

$$DL = 0.01077$$

$$BEC = 0.00675$$

Weight: <None>

Min Conc: 0

¹¹¹Cd [NoGas] ISTD : ¹⁵⁹Tb [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	843.29	0.0001	P	9.4
2	☐	0.100	0.113	1026.91	0.0001	P	4.0
3	☐	1.000	1.021	2361.34	0.0002	P	3.3
4	☐	50.000	54.066	75361.13	0.0068	P	5.8
5	☐	125.000	130.481	190739.33	0.0164	P	0.4
6	☐	250.000	261.565	381035.24	0.0328	P	0.9
7	☐	500.000	511.408	770734.44	0.0641	P	0.2
8	☐	1000.000	990.516	1565045.54	0.1242	P	0.8
9	☐			1094.68	0.0001	P	3.0

$$y = 1.2528\text{E-}004 * x + 7.2955\text{E-}005$$

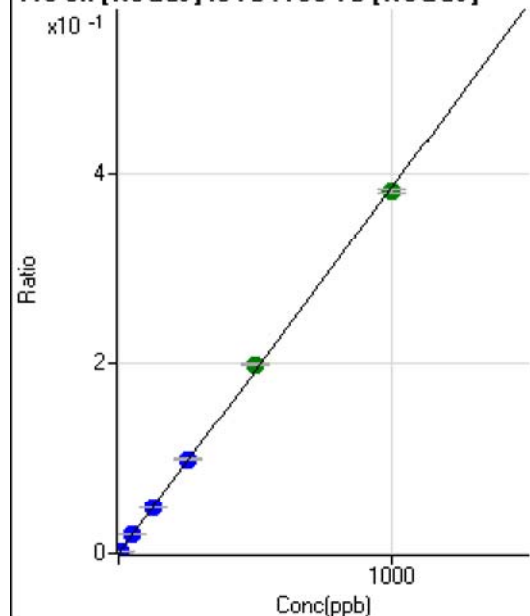
$$R = 0.9998$$

$$DL = 0.1634$$

$$BEC = 0.5824$$

Weight: <None>

Min Conc: 0

¹¹⁸Sn [NoGas] ISTD : ¹⁵⁹Tb [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	550.04	0.0000	P	23.5
2	☐	0.500	0.530	2967.16	0.0003	P	3.2
3	☐	5.000	5.303	24598.07	0.0021	P	1.1
4	☐	50.000	52.737	224205.12	0.0204	P	6.5
5	☐	125.000	127.049	569380.61	0.0490	P	1.0
6	☐	250.000	258.052	1154518.63	0.0995	P	1.3
7	☐	500.000	515.246	2386817.98	0.1986	A	0.6
8	☐	1000.000	989.970	4810035.96	0.3816	A	1.0
9	☐			12920.62	0.0010	P	3.8

$$y = 3.8542\text{E-}004 * x + 4.7620\text{E-}005$$

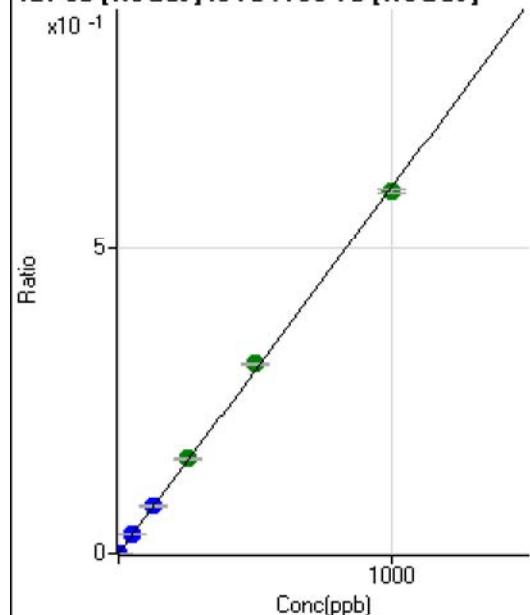
$$R = 0.9998$$

$$DL = 0.087$$

$$BEC = 0.1236$$

Weight: <None>

Min Conc: 0

121 Sb [NoGas] ISTD : 159 Tb [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	111.12	0.0000	P	40.9
2	☐	0.200	0.192	1466.82	0.0001	P	13.3
3	☐	2.000	1.914	13585.27	0.0012	P	4.3
4	☐	50.000	52.309	344972.05	0.0313	P	4.4
5	☐	125.000	128.452	893377.99	0.0769	P	0.6
6	☐	250.000	260.403	1808611.31	0.1559	A	2.0
7	☐	500.000	516.268	3713742.71	0.3091	A	0.5
8	☐	1000.000	988.718	7460562.15	0.5919	A	1.0
9	☐			19818.34	0.0016	P	6.8

$$y = 5.9863\text{E-}004 * x + 9.5921\text{E-}006$$

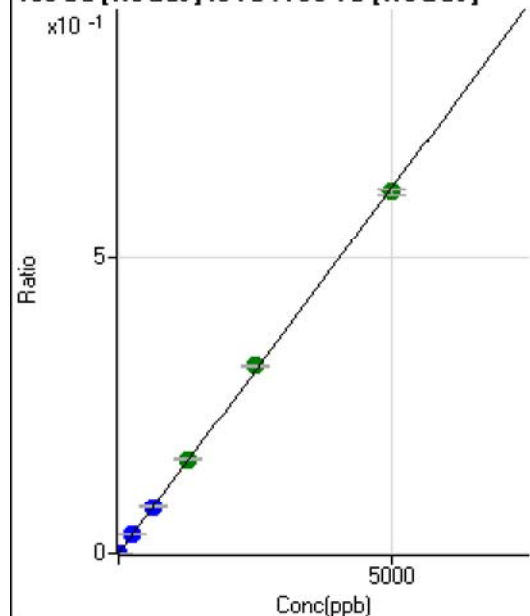
$$R = 0.9997$$

$$DL = 0.01967$$

$$BEC = 0.01602$$

Weight: <None>

Min Conc: 0

135 Ba [NoGas] ISTD : 159 Tb [NoGas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	61.12	0.0000	P	8.6
2	☐	1.000	1.037	1569.61	0.0001	P	1.2
3	☐	10.000	9.751	14213.85	0.0012	P	2.3
4	☐	250.000	266.721	362195.63	0.0329	P	6.7
5	☐	625.000	642.085	920373.99	0.0792	P	0.6
6	☐	1250.000	1294.048	1852520.20	0.1597	A	1.4
7	☐	2500.000	2563.494	3800710.33	0.3163	A	0.5
8	☐	5000.000	4954.270	7705052.17	0.6113	A	1.3
9	☐			1163.99	0.0001	P	15.3

$$y = 1.2339\text{E-}004 * x + 5.2869\text{E-}006$$

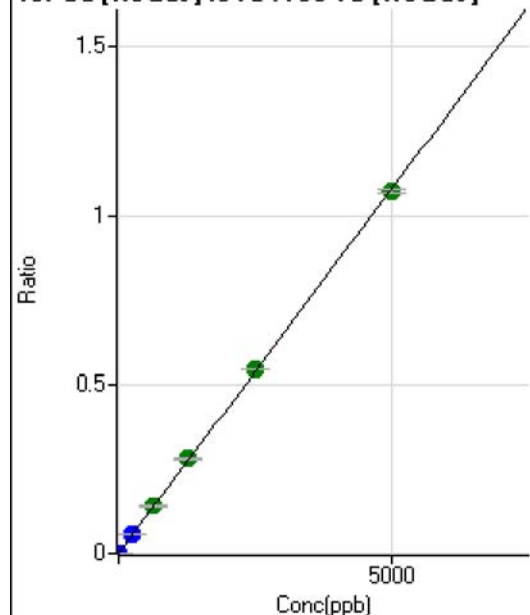
$$R = 0.9998$$

$$DL = 0.01102$$

$$BEC = 0.04285$$

Weight: <None>

Min Conc: 0

¹³⁷Ba [No Gas] ISTD : ¹⁵⁹Tb [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	80.56	0.0000	P	25.7
2	☐	1.000	0.983	2578.16	0.0002	P	4.5
3	☐	10.000	9.815	24971.72	0.0021	P	3.4
4	☐	250.000	265.101	629394.58	0.0572	P	6.1
5	☐	625.000	645.623	1617632.79	0.1393	A	1.1
6	☐	1250.000	1306.772	3270174.40	0.2819	A	1.8
7	☐	2500.000	2531.546	6561110.13	0.5460	A	0.4
8	☐	5000.000	4966.702	13502516.97	1.0712	A	0.9
9	☐			2008.58	0.0002	P	5.4

$$y = 2.1568\text{E-}004 * x + 6.9630\text{E-}006$$

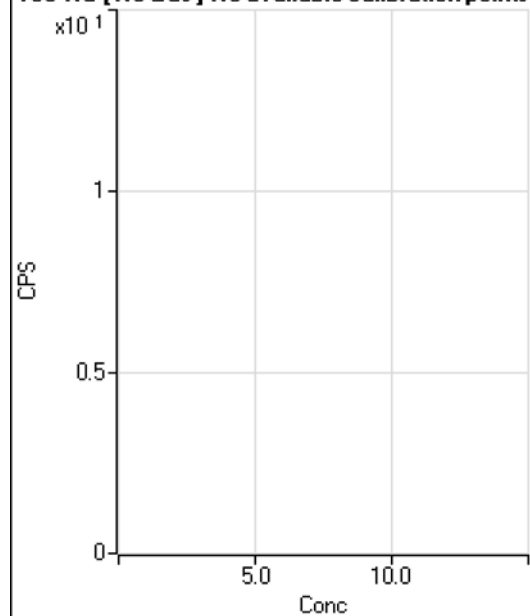
$$R = 0.9999$$

$$DL = 0.02486$$

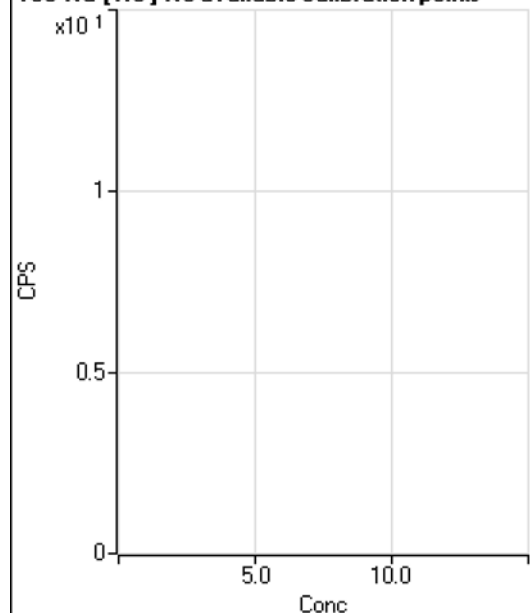
$$BEC = 0.03228$$

Weight: <None>

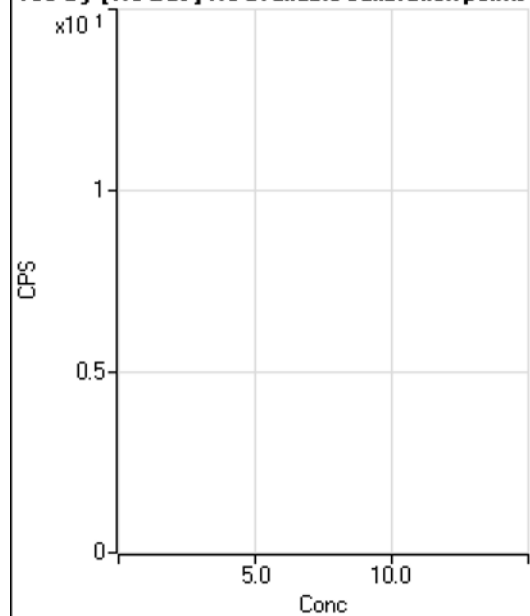
Min Conc: 0

¹⁵⁰Nd [No Gas] No available calibration points

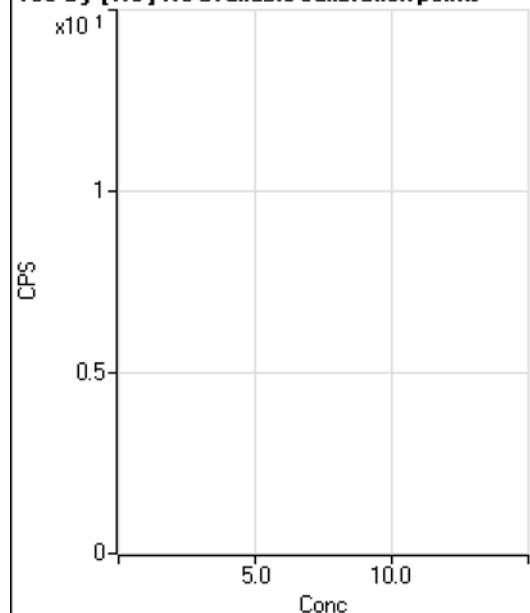
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			8.89		P	43.3
2	☐			20.00		P	0.0
3	☐			2.22		P	173.2
4	☐			17.78		P	57.3
5	☐			46.67		P	42.9
6	☐			68.89		P	22.4
7	☐			146.67		P	13.6
8	☐			342.24		P	7.4
9	☐			111.12		P	6.9

150 Nd [He] No available calibration points

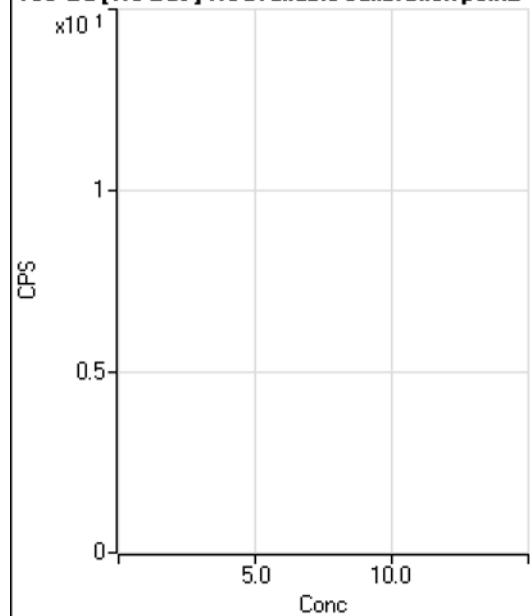
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			1.11		P	173.2
2	☐			2.22		P	86.6
3	☐			0.00		P	
4	☐			3.33		P	100.1
5	☐			3.33		P	100.1
6	☐			1.11		P	173.2
7	☐			8.89		P	21.6
8	☐			11.11		P	17.3
9	☐			11.11		P	62.5

156 Dy [No Gas] No available calibration points

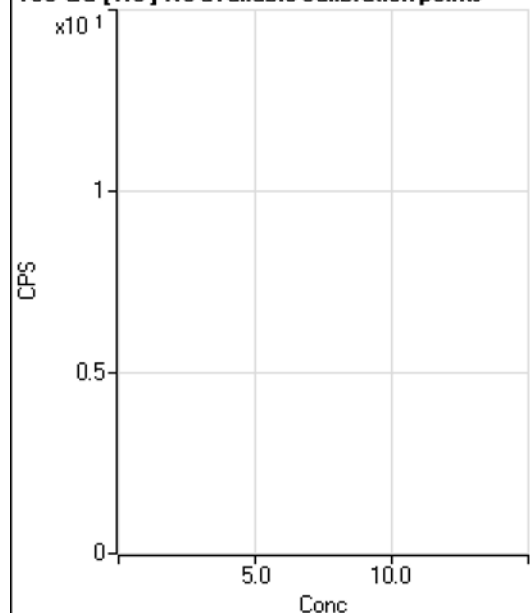
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			5.55		P	86.6
2	☐			13.89		P	69.3
3	☐			8.33		P	0.0
4	☐			25.00		P	0.0
5	☐			19.45		P	65.5
6	☐			25.00		P	88.2
7	☐			63.89		P	52.7
8	☐			144.45		P	8.8
9	☐			88.89		P	42.3

156 Dy [He] No available calibration points

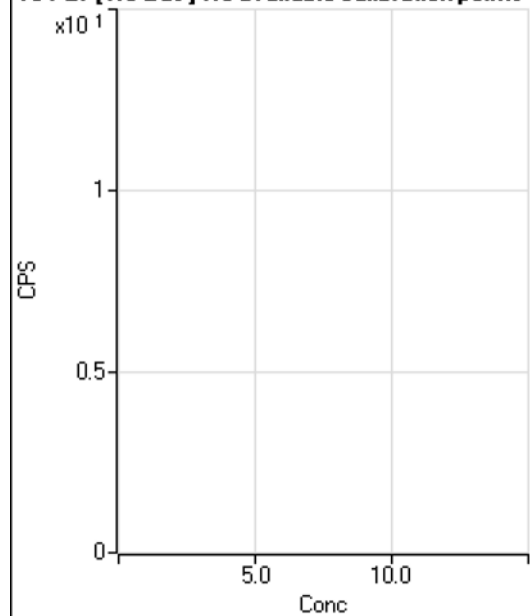
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			0.00		P	
2	☐			2.22		P	173.2
3	☐			1.11		P	173.2
4	☐			0.00		P	
5	☐			4.44		P	43.4
6	☐			3.33		P	100.1
7	☐			5.56		P	34.7
8	☐			17.78		P	39.0
9	☐			7.78		P	65.5

160 Gd [No Gas] No available calibration poin_

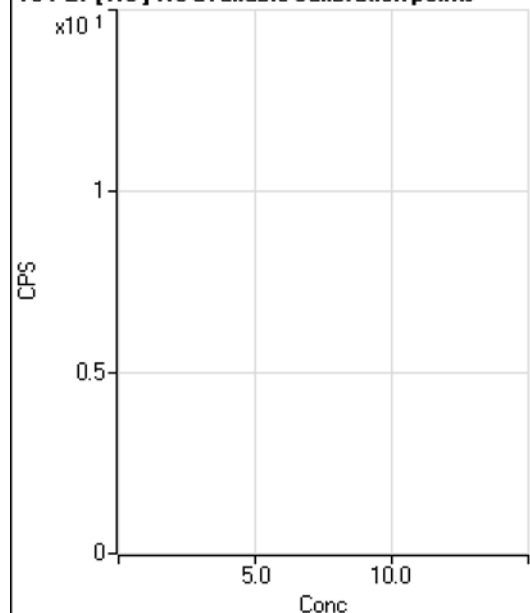
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			58.34		P	57.1
2	☐			63.89		P	61.6
3	☐			77.78		P	16.4
4	☐			44.45		P	10.8
5	☐			80.56		P	15.8
6	☐			55.56		P	52.7
7	☐			88.90		P	30.1
8	☐			130.56		P	45.3
9	☐			86.11		P	64.4

160 Gd [He] No available calibration points

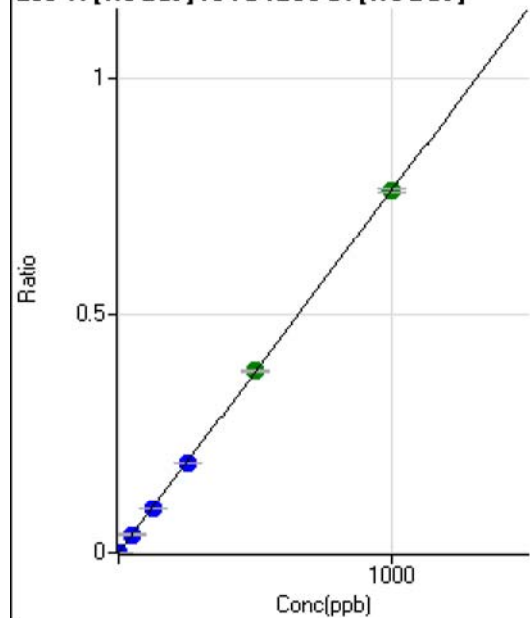
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			8.89		P	21.6
2	☐			5.56		P	34.7
3	☐			8.89		P	43.3
4	☐			8.89		P	57.3
5	☐			12.22		P	41.7
6	☐			11.11		P	45.8
7	☐			14.44		P	58.1
8	☐			26.67		P	21.7
9	☐			26.67		P	37.5

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			27.78		P	69.3
2	☐			36.11		P	70.5
3	☐			41.67		P	34.7
4	☐			13.89		P	34.7
5	☐			66.67		P	12.5
6	☐			50.00		P	44.1
7	☐			66.67		P	45.1
8	☐			83.33		P	17.3
9	☐			66.67		P	21.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			6.67		P	50.0
2	☐			6.67		P	0.0
3	☐			5.55		P	69.3
4	☐			8.89		P	57.3
5	☐			6.66		P	86.6
6	☐			13.33		P	75.0
7	☐			8.89		P	114.5
8	☐			16.67		P	20.0
9	☐			13.33		P	66.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	188.90	0.0000	P	8.8
2	☐	0.100	0.100	758.40	0.0001	P	4.5
3	☐	1.000	0.959	5623.74	0.0008	P	3.5
4	☐	50.000	49.755	265998.86	0.0380	P	5.8
5	☐	125.000	122.984	684369.98	0.0939	P	1.1
6	☐	250.000	250.786	1389886.36	0.1914	P	0.3
7	☐	500.000	501.504	2891195.27	0.3827	A	1.0
8	☐	1000.000	999.316	5976452.09	0.7625	A	1.1
9	☐			3320.04	0.0005	P	5.1

$$y = 7.6299\text{E-}004 * x + 2.6001\text{E-}005$$

$$R = 1.0000$$

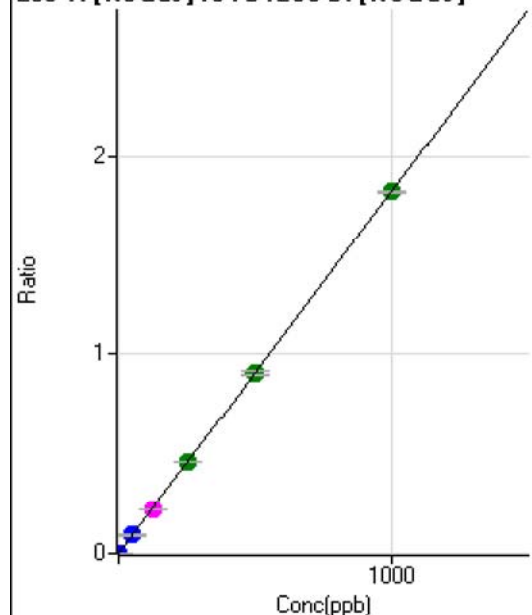
$$DL = 0.009001$$

$$BEC = 0.03408$$

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	388.91	0.0001	P	3.6
2	☐	0.100	0.092	1641.85	0.0002	P	4.2
3	☐	1.000	0.974	13555.03	0.0018	P	3.6
4	☐	50.000	50.481	644402.60	0.0920	P	5.2
5	☐	125.000	123.335	1638548.83	0.2247	M	1.0
6	☐	250.000	254.435	3366581.89	0.4635	A	0.9
7	☐	500.000	497.638	6848684.70	0.9066	A	1.7
8	☐	1000.000	1000.256	14282522.19	1.8221	A	0.6
9	☐			7941.78	0.0011	P	3.0

$$y = 0.0018 * x + 5.3548E-005$$

$$R = 1.0000$$

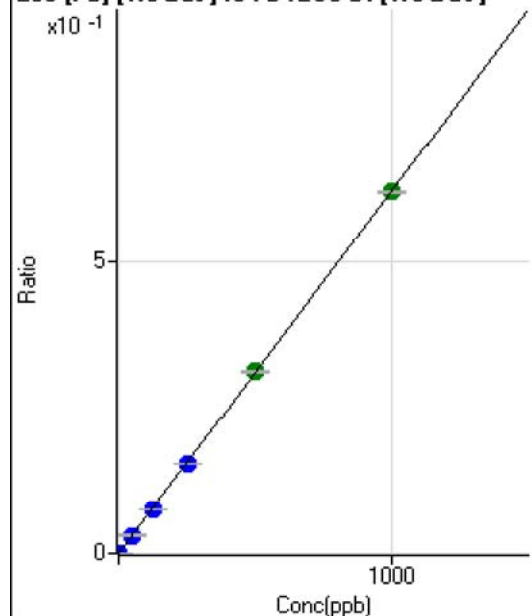
$$DL = 0.003185$$

$$BEC = 0.0294$$

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	187.04	0.0000	P	7.3
2	☐	0.100	0.094	624.11	0.0001	P	5.8
3	☐	1.000	0.956	4591.72	0.0006	P	3.7
4	☐	50.000	50.060	217664.32	0.0311	P	5.2
5	☐	125.000	123.271	557761.02	0.0765	P	0.8
6	☐	250.000	248.748	1120878.63	0.1543	P	0.2
7	☐	500.000	501.601	2351102.71	0.3112	A	1.3
8	☐	1000.000	999.726	4861276.09	0.6202	A	0.6
9	☐			26884.68	0.0037	P	1.7

$$y = 6.2034E-004 * x + 2.5757E-005$$

$$R = 1.0000$$

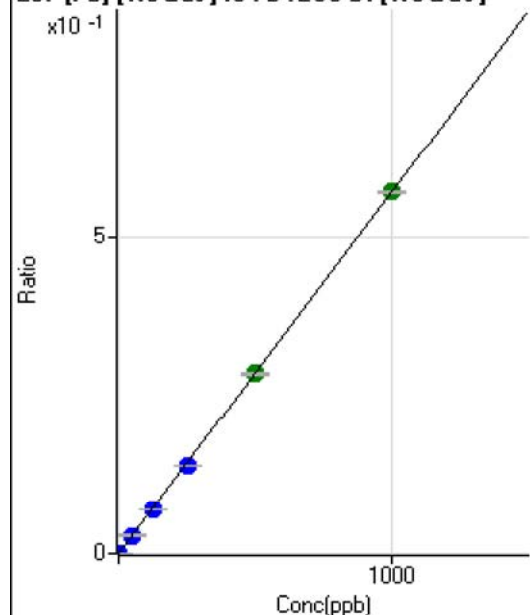
$$DL = 0.009051$$

$$BEC = 0.04152$$

Weight: <None>

Min Conc: 0

207 [Pb] [NoGas] ISTD : 209 Bi [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	150.01	0.0000	P	11.4
2	☐	0.100	0.097	566.70	0.0001	P	5.6
3	☐	1.000	0.939	4128.58	0.0006	P	1.7
4	☐	50.000	49.349	197473.68	0.0282	P	4.9
5	☐	125.000	120.977	503717.85	0.0691	P	1.4
6	☐	250.000	244.685	1014657.11	0.1397	P	0.4
7	☐	500.000	498.041	2148258.60	0.2843	A	0.5
8	☐	1000.000	1002.844	4487647.73	0.5725	A	0.6
9	☐			22604.03	0.0031	P	1.3

$$y = 5.7089\text{E-}004 * x + 2.0656\text{E-}005$$

$$R = 1.0000$$

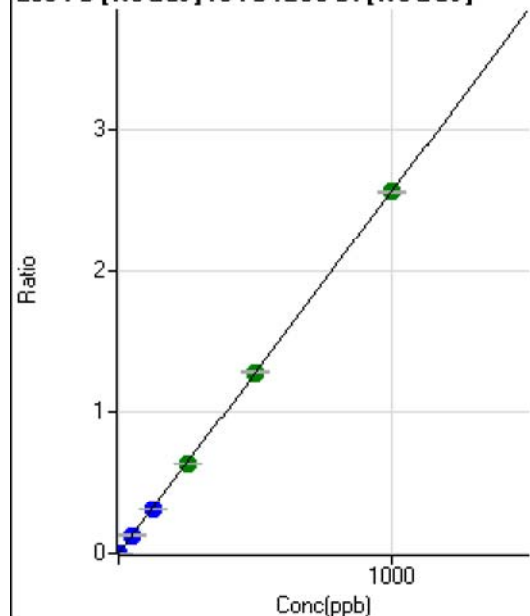
$$DL = 0.01232$$

$$BEC = 0.03618$$

Weight: <None>

Min Conc: 0

208 Pb [NoGas] ISTD : 209 Bi [NoGas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	738.93	0.0001	P	7.8
2	☐	0.100	0.094	2539.06	0.0003	P	2.2
3	☐	1.000	0.940	18609.62	0.0025	P	1.7
4	☐	50.000	49.681	890900.45	0.1272	P	5.5
5	☐	125.000	121.632	2270049.38	0.3113	P	0.8
6	☐	250.000	251.301	4670815.83	0.6431	A	0.4
7	☐	500.000	499.455	9655981.39	1.2781	A	0.8
8	☐	1000.000	1000.385	20065037.95	2.5599	A	0.6
9	☐			103998.76	0.0142	P	0.8

$$y = 0.0026 * x + 1.0175\text{E-}004$$

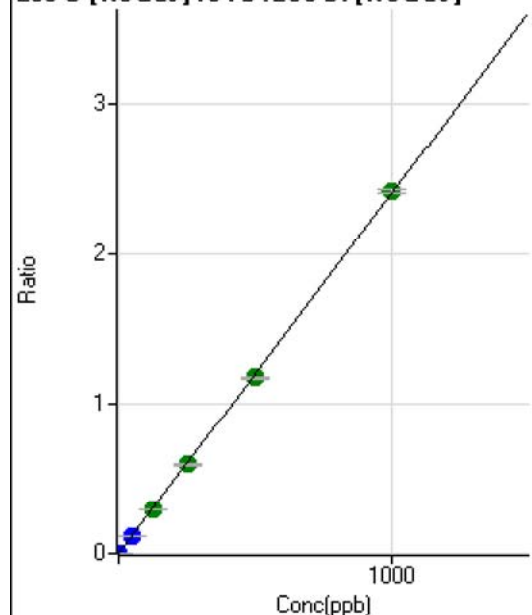
$$R = 1.0000$$

$$DL = 0.009271$$

$$BEC = 0.03976$$

Weight: <None>

Min Conc: 0

²³⁸U [No Gas] ISTD: ²⁰⁹Bi [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	19.45	0.0000	P	24.8
2	☐	0.100	0.095	1719.65	0.0002	P	8.7
3	☐	1.000	0.953	17020.82	0.0023	P	1.2
4	☐	50.000	48.713	820206.49	0.1171	P	5.5
5	☐	125.000	123.713	2168807.80	0.2975	A	1.6
6	☐	250.000	249.215	4351909.86	0.5992	A	1.5
7	☐	500.000	488.742	8877475.37	1.1751	A	1.2
8	☐	1000.000	1006.050	18960096.60	2.4189	A	1.0
9	☐			1350.13	0.0002	P	3.5

$$y = 0.0024 * x + 2.6775E-006$$

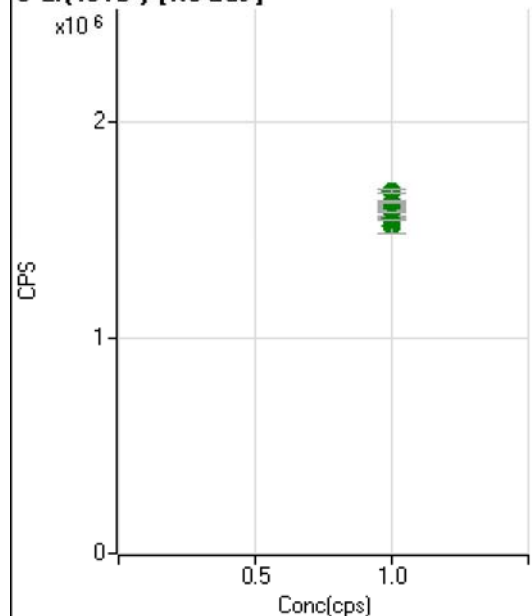
$$R = 0.9999$$

$$DL = 0.0008275$$

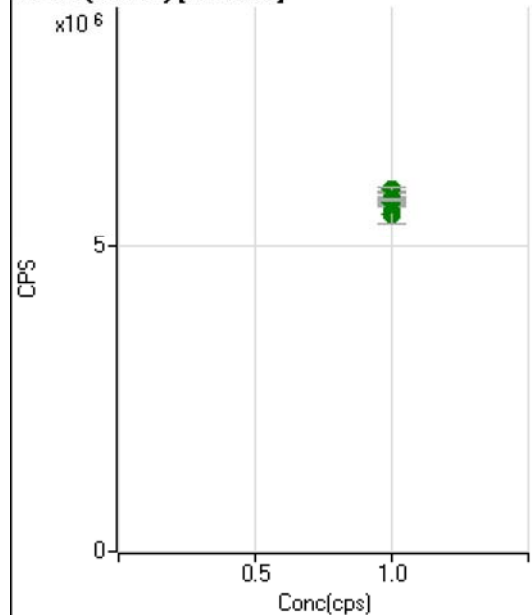
$$BEC = 0.001114$$

Weight: <None>

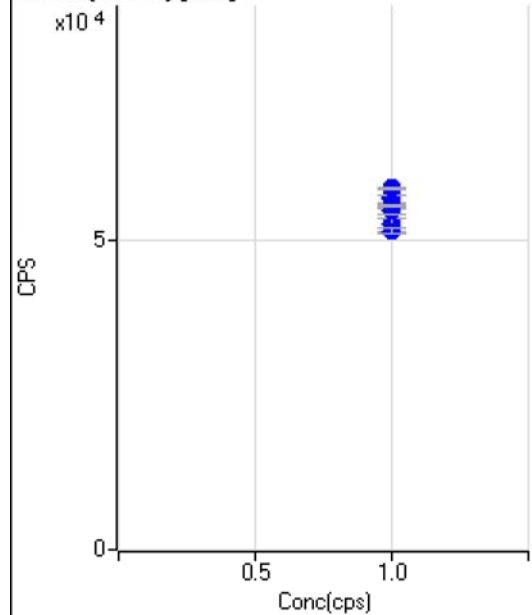
Min Conc: 0

⁶Li (ISTD) [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		1595342.72		A	1.0
2	☐	1.000		1617565.34		A	1.2
3	☐	1.000		1621455.08		A	0.5
4	☐	1.000		1520403.41		A	4.5
5	☐	1.000		1551357.34		A	0.8
6	☐	1.000		1559881.99		A	1.1
7	☐	1.000		1590756.00		A	0.4
8	☐	1.000		1629791.82		A	0.7
9	☐	1.000		1678246.43		A	1.1

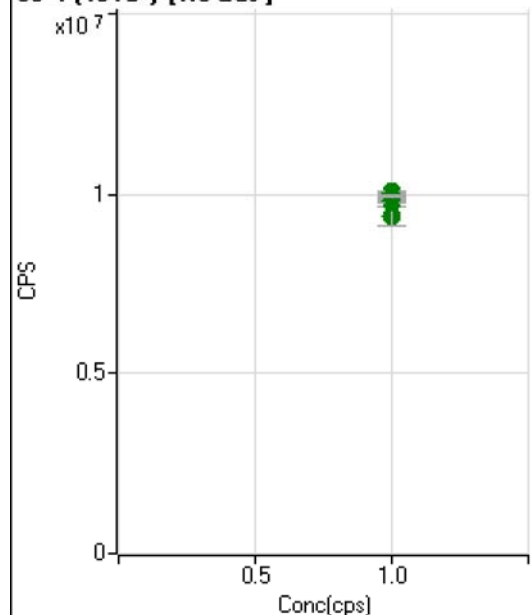
45 Sc(ISTD) [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		5749532.64		A	0.8
2	☐	1.000		5906161.85		A	0.2
3	☐	1.000		5916785.46		A	1.3
4	☐	1.000		5526731.50		A	6.2
5	☐	1.000		5751584.94		A	0.3
6	☐	1.000		5713746.35		A	0.8
7	☐	1.000		5758128.43		A	1.1
8	☐	1.000		5671110.89		A	0.7
9	☐	1.000		5747617.71		A	0.7

45 Sc(ISTD) [He]

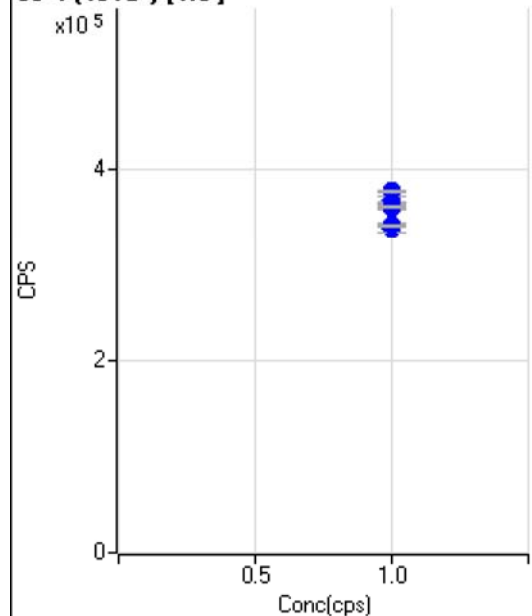
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		57149.32		P	3.6
2	☐	1.000		56654.34		P	2.5
3	☐	1.000		58509.07		P	0.5
4	☐	1.000		55348.60		P	0.3
5	☐	1.000		52652.84		P	4.0
6	☐	1.000		55726.69		P	1.2
7	☐	1.000		54753.97		P	1.4
8	☐	1.000		51608.92		P	1.3
9	☐	1.000		55741.19		P	0.6

89 Y (ISTD) [No Gas]

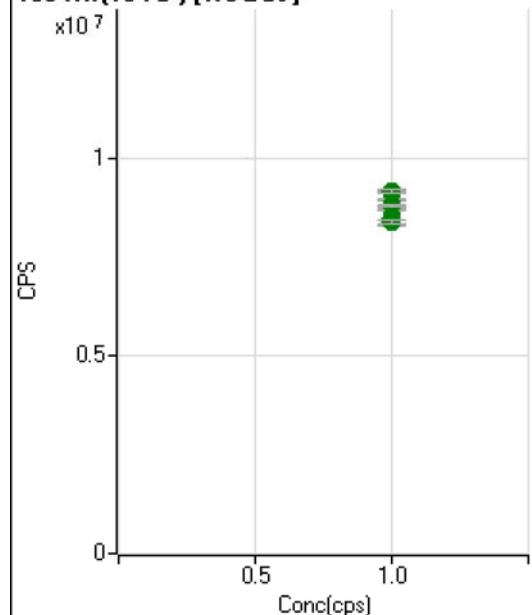


	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		9823305.06		A	0.8
2	☐	1.000		9979434.64		A	0.6
3	☐	1.000		10081081.17		A	0.6
4	☐	1.000		9411014.10		A	6.0
5	☐	1.000		9794141.66		A	0.5
6	☐	1.000		9826892.28		A	0.7
7	☐	1.000		9979784.09		A	0.8
8	☐	1.000		10047111.10		A	0.7
9	☐	1.000		9958032.84		A	0.8

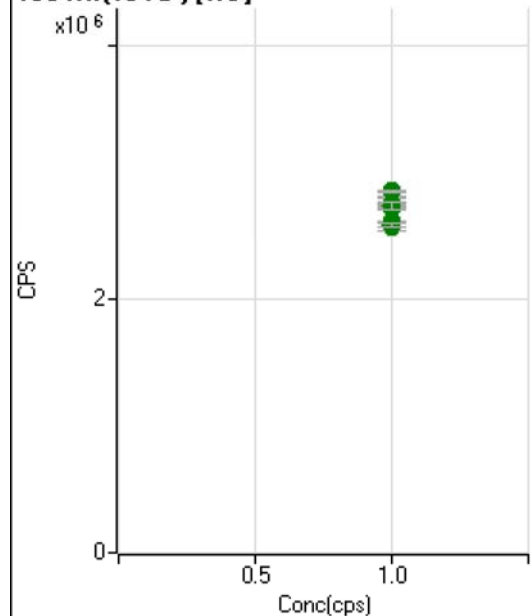
89 Y (ISTD) [He]



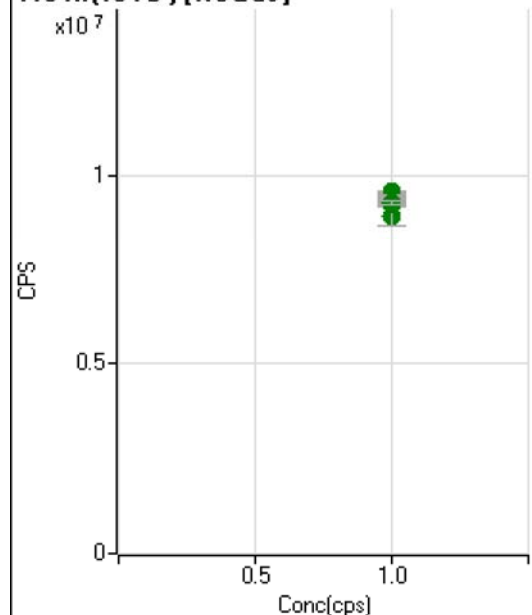
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		367304.76		P	3.0
2	☐	1.000		368393.24		P	2.5
3	☐	1.000		378143.24		P	0.4
4	☐	1.000		363171.16		P	0.1
5	☐	1.000		339665.46		P	2.9
6	☐	1.000		365137.97		P	0.4
7	☐	1.000		360816.70		P	1.4
8	☐	1.000		341842.51		P	0.5
9	☐	1.000		362334.53		P	0.6

103 Rh(ISTD) [NoGas]

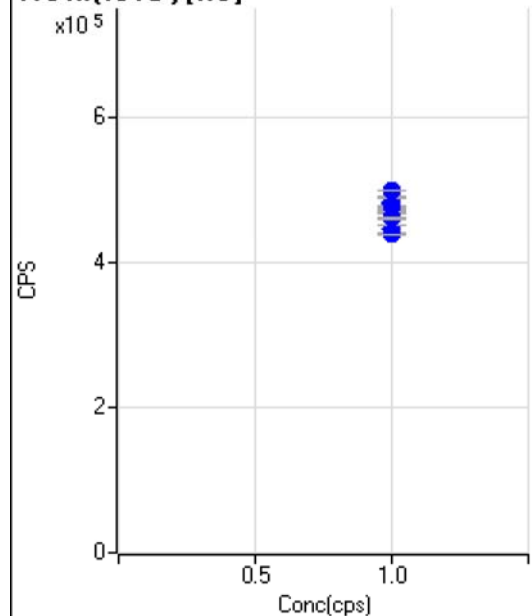
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		8946014.78		A	0.3
2	☐	1.000		9138779.20		A	0.6
3	☐	1.000		9161299.25		A	1.0
4	☐	1.000		8496884.65		A	5.1
5	☐	1.000		8788488.56		A	1.0
6	☐	1.000		8716371.63		A	0.6
7	☐	1.000		8835519.03		A	0.5
8	☐	1.000		8813742.91		A	0.5
9	☐	1.000		8404754.87		A	1.0

103 Rh(ISTD) [He]

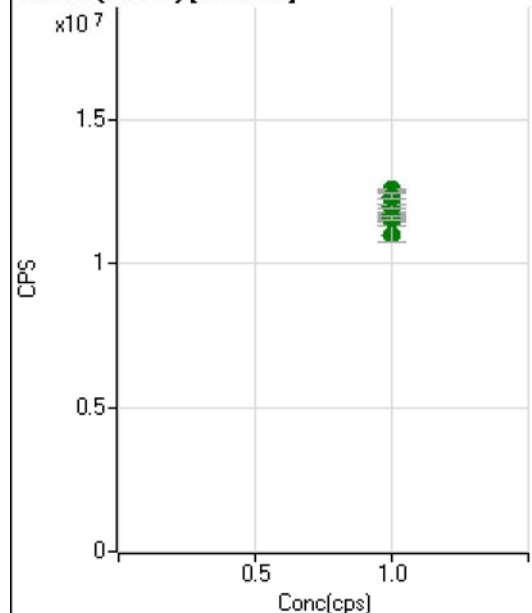
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		2782883.01		A	2.5
2	☐	1.000		2775023.12		A	2.0
3	☐	1.000		2863867.01		A	0.2
4	☐	1.000		2755699.54		A	0.4
5	☐	1.000		2586737.88		A	2.7
6	☐	1.000		2738823.01		A	0.5
7	☐	1.000		2750286.35		A	1.9
8	☐	1.000		2624356.12		A	0.1
9	☐	1.000		2600963.05		A	1.0

115 In(ISTD) [NoGas]

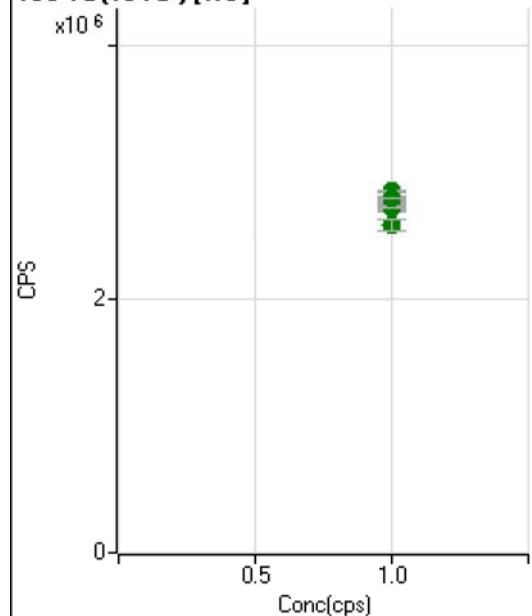
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		9275254.49		A	0.2
2	☐	1.000		9511663.21		A	0.2
3	☐	1.000		9556118.39		A	0.0
4	☐	1.000		8922308.35		A	5.3
5	☐	1.000		9255337.80		A	0.5
6	☐	1.000		9240493.45		A	1.2
7	☐	1.000		9407650.55		A	0.9
8	☐	1.000		9458856.55		A	0.6
9	☐	1.000		9257006.19		A	1.1

115 In(ISTD) [He]

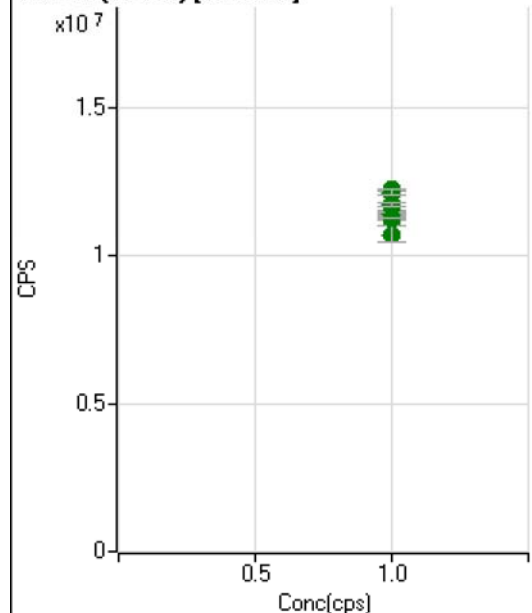
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		484946.11		P	2.6
2	☐	1.000		482814.22		P	2.4
3	☐	1.000		499491.74		P	0.1
4	☐	1.000		476740.87		P	0.7
5	☐	1.000		446980.86		P	2.4
6	☐	1.000		476054.42		P	0.2
7	☐	1.000		470093.98		P	0.7
8	☐	1.000		439522.38		P	0.2
9	☐	1.000		462867.60		P	0.5

159 Tb(ISTD) [NoGas]

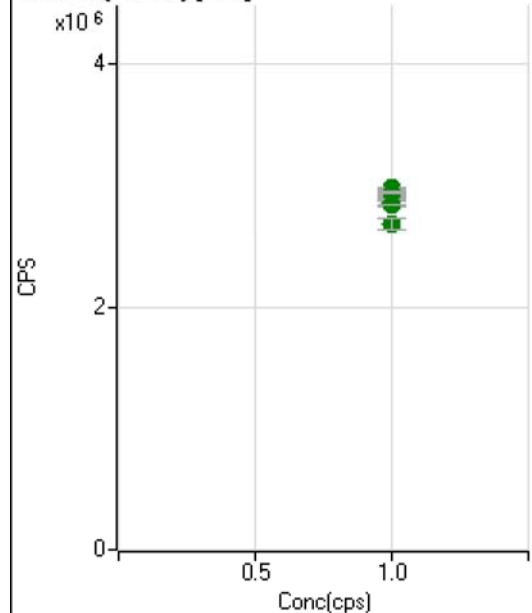
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		11564513.44		A	0.8
2	☐	1.000		11778495.80		A	0.7
3	☐	1.000		11760283.30		A	1.1
4	☐	1.000		11031142.27		A	5.5
5	☐	1.000		11616790.10		A	0.6
6	☐	1.000		11603361.08		A	1.3
7	☐	1.000		12016276.49		A	0.8
8	☐	1.000		12605353.29		A	0.9
9	☐	1.000		12372909.26		A	1.6

159 Tb(ISTD) [He]

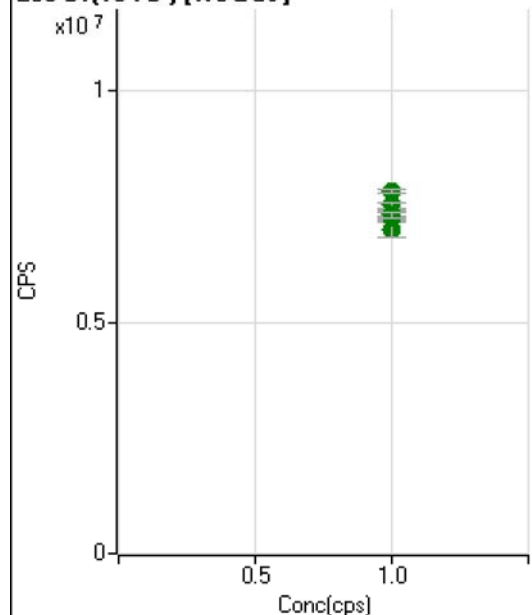
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		2736235.97		A	2.1
2	☐	1.000		2754674.82		A	2.7
3	☐	1.000		2863710.58		A	0.6
4	☐	1.000		2731448.05		A	1.3
5	☐	1.000		2592700.50		A	3.3
6	☐	1.000		2781440.34		A	0.7
7	☐	1.000		2806872.60		A	1.5
8	☐	1.000		2742934.99		A	0.6
9	☐	1.000		2810612.01		A	0.3

¹⁶⁵Ho(ISTD) [NoGas]

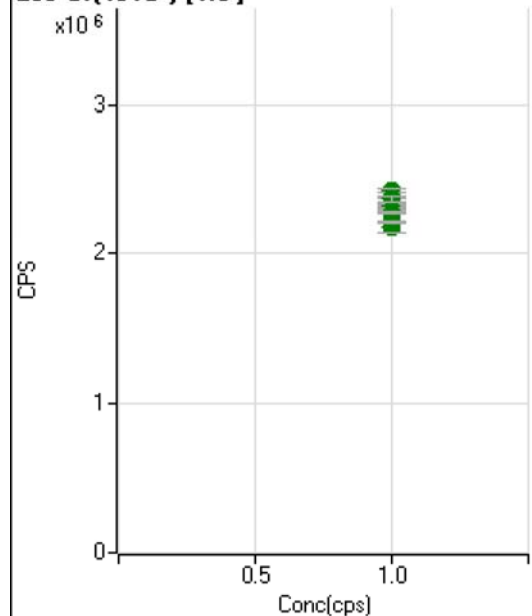
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		11218115.10		A	0.3
2	☐	1.000		11472206.68		A	1.0
3	☐	1.000		11399596.78		A	1.2
4	☐	1.000		10739070.38		A	5.5
5	☐	1.000		11304049.73		A	0.7
6	☐	1.000		11285782.28		A	0.4
7	☐	1.000		11766117.10		A	0.9
8	☐	1.000		12242686.38		A	0.3
9	☐	1.000		12140289.07		A	1.5

¹⁶⁵Ho(ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		2869868.22		A	2.3
2	☐	1.000		2883498.36		A	2.8
3	☐	1.000		2985782.42		A	0.3
4	☐	1.000		2866877.98		A	1.4
5	☐	1.000		2691591.57		A	3.5
6	☐	1.000		2909399.89		A	0.6
7	☐	1.000		2939895.37		A	1.6
8	☐	1.000		2852756.35		A	0.2
9	☐	1.000		2949665.93		A	0.8

209 Bi(ISTD) [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		7263485.24		A	0.5
2	☐	1.000		7432592.67		A	0.6
3	☐	1.000		7420187.04		A	0.7
4	☐	1.000		7015872.81		A	5.1
5	☐	1.000		7291645.72		A	0.6
6	☐	1.000		7262697.74		A	0.2
7	☐	1.000		7555336.55		A	1.5
8	☐	1.000		7838591.13		A	1.0
9	☐	1.000		7343514.41		A	1.8

209 Bi(ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		2340024.48		A	2.9
2	☐	1.000		2357513.58		A	2.4
3	☐	1.000		2425547.50		A	1.0
4	☐	1.000		2320840.18		A	0.8
5	☐	1.000		2181311.05		A	2.6
6	☐	1.000		2328903.51		A	1.0
7	☐	1.000		2373121.70		A	1.9
8	☐	1.000		2281858.66		A	1.0
9	☐	1.000		2212601.30		A	0.5

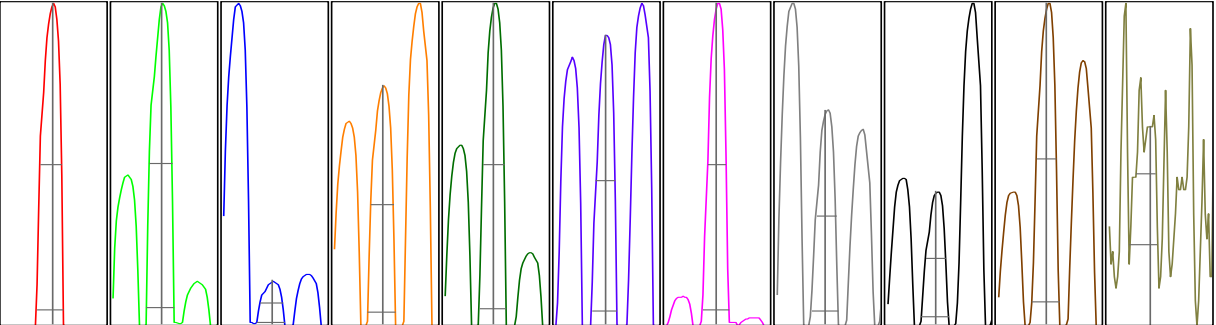
US EPA Tune Check Sample Report

Batch Folder D:\P8070718 MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5572	1.88	5.00	
24	94479	1.74	5.00	
25	12913	1.76	5.00	
26	15124	0.97	5.00	
59	61661	1.34	5.00	
113	7911	1.87	5.00	
115	97133	2.41	5.00	
206	23036	2.27	5.00	
207	21049	1.34	5.00	
208	50181	1.45	5.00	
220	1	16.22		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5585	5490	5682	5442	5662
24	95436	91887	95782	93797	95495
25	13025	12559	13147	12831	13003
26	15190	14898	15299	15113	15120
59	61505	61931	62159	62402	60309
113	7792	8039	7804	8102	7816
115	94514	98785	95120	100021	97225
206	22436	23412	22514	23548	23270
207	20733	21220	20791	21398	21105
208	49363	50679	49533	51060	50270
220	1	1	1	1	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	9603	9.00	8.9 - 9.1		0.775	0.900	
24	156972	23.95	23.9 - 24.1		0.785	0.900	
25	21457	24.95	24.9 - 25.1		0.786	0.900	
26	25197	25.95	25.9 - 26.1		0.784	0.900	
59	107219	58.95	58.9 - 59.1		0.777	0.900	
113	14847	113.00	112.9 - 113.1		0.728	0.900	
115	181093	115.00	114.9 - 115.1		0.766	0.900	
206	41858	205.95	205.9 - 206.1		0.777	0.900	
207	38008	206.95	206.9 - 207.1		0.773	0.900	
208	91546	207.95	207.9 - 208.1		0.778	0.900	
220	1	219.75	-		0.790		

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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	11.0	V	Deflect	13.8	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-110	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	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	9149	0.46	
89	9069	0.28	
205	12321	0.44	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	9214	9151	9101	9127	9152
89	9082	9081	9027	9063	9092
205	12385	12336	12274	12256	12355

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	11.0	V	Deflect	1.6	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-110	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	5.0	mL/min	OctP RF	200	V			