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# Level IV Data Package

MWH Group 239631

**Method: EPA 6010B: CR6010**

2805060277  
2805060278  
2805060279  
2805060280  
2805060281  
2805060282  
2805060290  
2805060291  
2805060293  
2805060294  
2805060303  
2805060305  
2805060311  
2805060312  
2805060313  
2805060314  
2805060315  
2805060316  
2805060317  
2805060318  
2805060319  
2805060320

EPA 200.7/6010B QC Check List

Analyst CSK Analysis Date 5-18-08 Reviewer/Date 5-19-08

Instrument PerKin Elmer Optima 4300DV

- All sample analyzed within 6 month holding time
- All sample raw concentration below the high standard or linear range o marked for dilution and rerun

Initial and closing QC

- ICV within +/- 5%
- Linearity check +/- 10%
- ICSAB +/- 20%
- QCS +/- 5%
- MRL +/- 50%

Middle, closing and batch QC

- FilterCheck < 1/2 MRL
- MBLANK < 1/2 MRL
- LCS +/-15%
- MS/MSD +/-30%(200.7) +/- 25% (6010B)
- CCV/MCV/ECV +/- 10%
- ICB/CCB/ECB < 1/2 MRL
- CCB ran after the CCV

General QC

- RPD between MS/MSD is within +/-20%
- RPD between LCS/LCSD is within +/- 20%
- Internal standards 60 TO 125%
- All pH of the samples are < 2

No more than 20 samples per batch

MS is run at frequency of 1 every 10 samples and MSD is run at frequency of 1 every 20 samples

NA QIR needed for failed QC

NA Special Det Code noted on the cover sheet

NA R value for multi point calibration is > 0.995

NA Proper MRL check ran for special low MRL samples

Reagent and Standards used for  
Optima 4300 DV  
Updated 03/31/08

Int: CSK  
Date: 5-19-08

# ICP SUMMARY SHEET

File ID: 080518A  
Date Started: 5/18/08  
Analyst ID: CSK

## SAMPLE ID

LINEARITY	(17:31)	Wash	(17:42)	FILTERCHECK	(18:01)
2805060278_2	(18:17)	2805060290_2	(18:29)	2805060277_2	(19:00)
2805060279_2	(19:05)	2805060280_2	(19:09)	2805060281_2	(19:13)
2805060282_2	(19:18)	2805060291_2	(19:22)	2805060293_2	(19:26)
2805060294_2	(19:30)	2805060303_2	(19:34)	2805060305_2	(19:55)
2805060311_2	(19:59)	2805060312_2	(20:03)	2805060313_2	(20:07)
2805060314_2	(20:12)	2805060315_2	(20:16)	2805060316_2	(20:20)
2805060317_2	(20:23)	2805060318_2	(20:28)	2805070236_2	(21:03)
2805070239_2	(21:14)	2805060319_2	(21:49)	2805060320_2	(21:53)
2805070224_1	(21:57)	2805070225_1	(22:02)	2805070226_1	(22:06)
2805070227_1	(22:10)	2805070228_1	(22:15)	2805070229_5	(22:19)
2805070230_5	(22:23)	2805070231_5	(22:27)	2805070232_5	(22:48)
2805070233_5	(22:52)	2805070234_5	(22:56)	2805070235_5	(23:01)
2805070237_2	(23:05)	2805070238_2	(23:09)	2805070240_2	(23:14)
2805070241_2	(23:17)	2805080195_2	(0:01)	2805080199_2	(0:13)
2805070675_2	(0:24)	2805070677_2	(0:44)	2805070678_2	(0:49)
2805070679_2	(0:53)	2805080191_2	(0:58)	2805080192_2	(1:02)
2805080193_2	(1:06)	2805080194_2	(1:11)	2805080196_2	(1:15)
2805080197_2	(1:19)	2805080200_5	(1:23)	2805080201_2	(1:50)
2805080202_2	(1:54)	2805080646_2	(1:58)	2805080652_2	(2:03)
2805080653_2	(2:07)	2805080654_2	(2:11)	2805080655_5	(2:16)

COMMENT:

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Analyst: CSK  
5-19-08

Approved By: W37

BATCH NUMBER for 080518A

Test Parameter:

SCA YR AG B\_ BA BE CA CD CO CR CU FE K MG MN MO NA NI PB V Z

Batch ID: 2805060278MSD

2805060278_2X	2805060290_2X	2805060277_2X
2805060279_2X	2805060280_2X	2805060281_2X
2805060282_2X	2805060291_2X	2805060293_2X
2805060294_2X	2805060303_2X	2805060305_2X
2805060311_2X	2805060312_2X	2805060313_2X
2805060314_2X	2805060315_2X	2805060316_2X
2805060317_2X	2805060318_2X	

Batch ID: 2805070236MSD

2805070236_2X	2805070239_2X	2805060319_2X
2805060320_2X	2805070224_10X	2805070225_10X
2805070226_10X	2805070227_10X	2805070228_10X
2805070229_5X	2805070230_5X	2805070231_5X
2805070232_5X	2805070233_5X	2805070234_5X
2805070235_5X	2805070237_2X	2805070238_2X
2805070240_2X	2805070241_2X	

Batch ID: 2805080195MSD

2805080195_2X	2805080199_2X	2805070675_2X
2805070677_2X	2805070678_2X	2805070679_2X
2805080191_2X	2805080192_2X	2805080193_2X
2805080194_2X	2805080196_2X	2805080197_2X
2805080200_5X	2805080201_2X	2805080202_2X
2805080646_2X	2805080652_2X	2805080653_2X
2805080654_2X	2805080655_5X	

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
ICV	5/18/08	17:27	1	9.9085	9.91	95-105	99.0%
LINEARITY	5/18/08	17:31	1	0.0028	.0028		
ICSA	5/18/08	17:34	1	0.0001	0.0001	80-120	
ICSAB	5/18/08	17:38	1	.25231	.252	80-120	100%
Wash	5/18/08	17:42	1	0.0000	0		
QC-25 1ppm	5/18/08	17:45	1	1.0403	1.0		
CCV	5/18/08	17:48	1	5.2731	5.27	90-110	105%
ICB	5/18/08	17:54	1	0.0001	0.0000		
MRL	5/18/08	17:57	1	0.0101	.0101	50-150	100%
FILTERCHECK	5/18/08	18:01	1	0.0001	0.0000		
MBLANK2007	5/18/08	18:04	1	-0.0003	ND		
MRL2007	5/18/08	18:08	1	0.0110	.011		
LCS2007	5/18/08	18:12	1	.98414	.984	85-115	98.4%
LCSD2007	5/18/08	18:14	1	1.0117	1.01	85-115	101%
2805060278✓2X	5/18/08	18:17	2	1.5065	1.5		
2805060278MS_2X MS	5/18/08	18:21	2	2.5349	2.53		
2805060278MSD_2X (MS)	5/18/08	18:25	2	2.4880	2.49		
T	5/18/08	18:25	2		2.00		
2805060290✓2X	5/18/08	18:29	2	.72706	.730		
2805060290MS_2X	5/18/08	18:33	2	1.7559	1.76		
CCV	5/18/08	18:37	1	5.3038	5.3	90-110	106%
CCB	5/18/08	18:53	1	-0.0001	ND		
2805060290MSD_2X	5/18/08	18:56	2	1.8027	1.8		
T	5/18/08	18:56	2		2.00		
2805060277_2X ✓	5/18/08	19:00	2	2.2543	2.3		
2805060279_2X ✓	5/18/08	19:05	2	.14819	.150		
2805060280_2X ✓	5/18/08	19:09	2	.43372	.430		
2805060281_2X ✓	5/18/08	19:13	2	.29487	.290		
2805060282_2X ✓	5/18/08	19:18	2	.39975	.4		
2805060291_2X ✓	5/18/08	19:22	2	.86217	.860		
2805060293_2X ✓	5/18/08	19:26	2	0.0003	0.0003		
2805060294_2X ✓	5/18/08	19:30	2	.84315	.840		
2805060303_2X ✓	5/18/08	19:34	2	.72369	.720		
CCV	5/18/08	19:39	1	5.3042	5.3	90-110	106%
CCB	5/18/08	19:48	1	0.0000	0.0000		
MCV	5/18/08	19:51	1	2.6896	2.69	90-110	107%
2805060305_2X ✓	5/18/08	19:55	2	1.7698	1.8		
2805060311_2X ✓	5/18/08	19:59	2	0.0288	.029		
2805060312_2X ✓	5/18/08	20:03	2	.03061	.031		
2805060313_2X ✓	5/18/08	20:07	2	.08019	.080		
2805060314_2X ✓	5/18/08	20:12	2	1.8556	1.9		
2805060315_2X ✓	5/18/08	20:16	2	.15056	.150		
2805060316_2X ✓	5/18/08	20:20	2	.72850	.730		
2805060317_2X ✓	5/18/08	20:23	2	0.0014	.0014		
2805060318_2X ✓	5/18/08	20:28	2	0.0012	.0012		
MBLANK2007	5/18/08	20:32	1	-0.0001	ND		

Handwritten notes and calculations:

- 85-115 98.4%
- 85-115 101%
- [ 1.03 ]
- [ 2.535 ] 126% (03%)
- [ 2.488 ] 124% (99%)
- 70-130
- [ 1.03 ]
- [ 1.756 ] 87.7% (03%)
- 90-110 106%
- [ 1.07 ]
- [ 1.803 ] 90.1% (07%)
- 70 - 130

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
CCV	5/18/08	20:36	1	5.2937	5.29	90-110	105%
CCB	5/18/08	20:45	1	-0.0001	ND		
MRL	5/18/08	20:48	1	0.0105	.0105	50-150	104%
MRL2007	5/18/08	20:52	1	0.0114	.0114		
LCS2007	5/18/08	20:55	1	.98141	.981	85-115	98.1%
LCSD2007	5/18/08	20:59	1	.98674	.987	85-115	98.6%
2805070236_2X	5/18/08	21:03	2	2.4963	2.5		
2805070236MS_2X MS	5/18/08	21:07	2	3.5493	3.55	[ 3.549]	177 Q 105%
2805070236MSD_2X MS	5/18/08	21:11	2	3.4558	3.46	[ 3.456]	172 Q 96%
T	5/18/08	21:11	2		2.00	70-130	
2805070239_2X	5/18/08	21:14	2	.35058	.350		
2805070239MS_2X	5/18/08	21:19	2	1.3820	1.38	[ 1.382]	69.1 Q 103%
2805070239MSD_2X	5/18/08	21:23	2	1.3806	1.38	[ 1.381]	69.0 Q 103%
T	5/18/08	21:23	2		2.00	70-130	
CCV	5/18/08	21:31	1	5.3385	5.34	90-110	106%
CCB	5/18/08	21:39	1	-0.0002	ND		
MCV	5/18/08	21:45	1	2.7138	2.71	90-110	108%
2805060319_2X	5/18/08	21:49	2	1.3345	1.3		
2805060320_2X	5/18/08	21:53	2	1.2794	1.3		
2805070224_10X	5/18/08	21:57	10	32.116	32		
2805070225_10X	5/18/08	22:02	10	31.225	31		
2805070226_10X	5/18/08	22:06	10	32.792	33		
2805070227_10X	5/18/08	22:10	10	31.880	32		
2805070228_10X	5/18/08	22:15	10	31.928	32		
2805070229_5X	5/18/08	22:19	5	16.677	17		
2805070230_5X	5/18/08	22:23	5	23.457	23		
2805070231_5X	5/18/08	22:27	5	14.553	15		
CCV	5/18/08	22:35	1	5.3029	5.3	90-110	106%
CCB	5/18/08	22:44	1	0.0021	.0021		
2805070232_5X	5/18/08	22:48	5	13.061	13		
2805070233_5X	5/18/08	22:52	5	11.616	12		
2805070234_5X	5/18/08	22:56	5	9.7618	9.8		
2805070235_5X	5/18/08	23:01	5	5.2134	5.2		
2805070237_2X	5/18/08	23:05	2	1.2824	1.3		
2805070238_2X	5/18/08	23:09	2	.71902	.720		
2805070240_2X	5/18/08	23:14	2	1.1027	1.1		
2805070241_2X	5/18/08	23:17	2	0.0750	.075		
MBLANK2007	5/18/08	23:22	1	0.0006	0.0005		
MRL	5/18/08	23:25	1	0.0115	.0115	50-150	114%
CCV	5/18/08	23:33	1	5.2853	5.29	90-110	105%
CCB	5/18/08	23:42	1	0.0005	0.0004		
MCV	5/18/08	23:48	1	2.6693	2.67	90-110	106%
MRL2007	5/18/08	23:51	1	0.0118	.0118		
LCS2007	5/18/08	23:55	1	.98583	.986	85-115	98.5%
LCSD2007	5/18/08	23:58	1	.98998	.99	85-115	98.9%
2805080195_2X	5/19/08	0:01	2	0.0852	.085		
2805080195MS_2X	5/19/08	0:05	2	1.0740	1.07	[ 1.074]	53.7 Q
2805080195MSD_2X	5/19/08	0:09	2	1.1017	1.1	[ 1.102]	55.0 Q
T	5/19/08	0:09	2		2.00	70-130	

Handwritten notes and circled numbers in the right margin of the table, including '105%', '96%', '103%', '103%', and circled '10', '5', '2'.

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
2805080199_2X	5/19/08	0:13	2	.27378	.270		
2805080199MS_2X	5/19/08	0:17	2	1.2507	1.25		
2805080199MSD_2X	5/19/08	0:21	2	1.2181	1.22		
T	5/19/08	0:21	2		2.00		
2805070675_2X	5/19/08	0:24	2	0.0016	.0016		
CCV	5/19/08	0:32	1	5.2266	5.23	90-110	104%
CCB	5/19/08	0:41	1	0.0000	0.0000		
2805070677_2X	5/19/08	0:44	2	0.0051	.0051		
2805070678_2X	5/19/08	0:49	2	0.0027	.0027		
2805070679_2X	5/19/08	0:53	2	0.0027	.0027		
2805080191_2X	5/19/08	0:58	2	0.0810	.081		
2805080192_2X	5/19/08	1:02	2	0.0760	.076		
2805080193_2X	5/19/08	1:06	2	.41628	.420		
2805080194_2X	5/19/08	1:11	2	0.0810	.081		
2805080196_2X	5/19/08	1:15	2	.76763	.770		
2805080197_2X	5/19/08	1:19	2	0.0013	.0013		
2805080200_5X	5/19/08	1:23	5	13.025	13		
CCV	5/19/08	1:32	1	5.1776	5.18	90-110	103%
CCB	5/19/08	1:41	1	0.0000	0.0000		
MCV	5/19/08	1:46	1	2.6335	2.63	90-110	105%
2805080201_2X	5/19/08	1:50	2	0.0321	.032		
2805080202_2X	5/19/08	1:54	2	0.0812	.081		
2805080646_2X	5/19/08	1:58	2	.01780	.018		
2805080652_2X	5/19/08	2:03	2	0.0449	.045		
2805080653_2X	5/19/08	2:07	2	.39989	.4		
2805080654_2X	5/19/08	2:11	2	.45086	.450		
2805080655_5X	5/19/08	2:16	5	10.989	11		
ECV	5/19/08	2:22	1	5.1365	5.14	90-110	102%
ECB	5/19/08	2:31	1	0.0003	0.0002		

0.980 (98)  
 [ 1.251] 62.5 Q  
 [ 1.218] 60.9 Q  
 70.130 (95)  
 0.950



Landscape Summary

File ID: 080518A

Date: 5/18/08

Analyst: CSK

Page: 4

Sample ID	Time	PE	K	MG	MN	MO	NA	NI	PB	V	ZN	AL
ICV	17:27	9.89/10	100/100	99.4/100	10.0/10	9.88/10	101/100	9.90/10	9.90/10	10.1/10	9.81/10	N/A
LINEARITY	17:31	96.6	308	185	-0.07	0.001	297/300	0.000	-0.004	0.002	0.022	N/A
ICSA	17:34	95.2/100	0.300	230/250	-0.08	0.000	0.110	-0.001	-0.039	0.002	0.018	N/A
ICSBAB	17:38	95.7/100	0.180	231/250	0.247/.25	0.0005	0.073	0.468/.5	0.457/.5	0.255/.25	0.530/.5	N/A
Wash	17:42	0.0062	0.0630	0.0092	-0.002	0.0005	0.0015	0.0003	0.0014	0.0000	0.0003	N/A
QC-25 1ppm	17:45	1.005	9.713	1.054	1.069	0.9724	0.9774	1.098	1.070	0.9968	0.0000	N/A
CCV	17:48	5.15/5	51.1/50	51.4/50	5.25/5	5.11/5	51.8/50	5.25/5	5.22/5	5.21/5	5.18/5	N/A
ICB	17:54	0.0004	0.0328	0.0004	-0.002	0.0004	-0.0068	0.0006	-0.002	0.0001	0.0000	N/A
MRI	17:57	0.020/.02	0.990/1	0.103/.1	0.002/.002	0.020/.02	0.987/1	0.021/.02	0.021/.02	0.002/.002	0.020/.02	N/A
FILTERCHECK	18:01	0.0004	0.0486	0.0008	-0.002	0.0004	-0.0117	0.0006	-0.005	0.0000	-0.0003	N/A
MRLANK2007	18:04	0.0012	0.0291	0.0015	-0.003	-0.0002	0.0059	0.0006	-0.012	-0.0001	0.0032	N/A
MRL2007	18:08	0.024/.02	1.10/1	0.113/.1	0.002/.002	0.021/.02	1.07/1	0.023/.02	0.022/.02	0.002/.002	0.025/.02	N/A
LCSD2007	18:12	4.78/5	19.0/20	19.3/20	0.495/.5	0.949/1	49.0/50	0.497/.5	0.991/1	0.967/1	0.991/1	N/A
2805060278 2X	18:14	4.94/5	20.0/20	20.0/20	0.514/.5	0.976/1	51.8/50	0.511/.5	1.02/1	1.01/1	1.02/1	N/A
2805060278MS 2X	18:17	0.0034	11.73	107.1	0.0310	0.0130	504.5	0.0007	-0.0095	0.0974	0.0014	N/A
2805060278MSD 2X	18:21	5.198	33.14	127.2	0.5679	1.029	559.6	0.5112	1.013	1.144	1.078	N/A
2805060290 2X	18:25	5.108	32.35	121.8	0.0258	0.0203	870.9	0.5078	1.004	1.134	1.069	N/A
2805060290MS 2X	18:29	0.0056	15.71	128.3	0.0258	0.0203	908.0	0.0009	-0.0132	1.134	1.069	N/A
CCV	18:33	5.003	37.16	143.3	0.5569	1.035	908.0	0.5099	0.9962	1.1319	1.085	N/A
CCB	18:37	5.07/5	51.7/50	50.8/50	5.22/5	5.15/5	53.2/50	5.29/5	5.27/5	5.18/5	5.23/5	N/A
2805060290MSD 2X	18:53	0.0009	0.0322	0.0006	-0.003	0.0000	0.0227	0.0005	-0.010	0.0000	-0.0002	N/A
2805060277 2X	18:56	5.0583	37.63	145.5	0.5680	1.054	941.7	0.5182	1.008	1.194	1.113	N/A
2805060279 2X	19:00	0.0532	15.92	236.3	0.0689	0.0362	\$1014.7	0.0022	-0.0192	0.1074	0.0049	2.085
2805060280 2X	19:05	0.0532	14.27	260.8	0.0088	0.0320	\$1318.0	-0.0007	-0.0215	0.0863	0.0027	0.1165
2805060281 2X	19:09	0.0674	15.50	248.4	0.0057	0.0268	\$1428.1	-0.0013	-0.0206	0.1104	0.0010	0.1359
2805060282 2X	19:13	0.0411	14.71	234.2	0.0017	0.0290	\$1268.9	0.0008	-0.0207	0.1112	0.0016	0.0665
2805060291 2X	19:18	0.0182	16.93	241.5	-0.0034	0.0285	\$1191.2	-0.0010	-0.0236	0.0671	0.0017	0.0322
2805060293 2X	19:22	0.0032	15.89	250.1	0.0042	0.0287	\$1422.4	0.0008	-0.0224	0.1572	0.0028	0.0012
2805060294 2X	19:26	0.0039	0.1169	0.0120	-0.0001	0.0001	0.7516	0.0016	-0.0044	0.0000	0.0075	0.0128
2805060303 2X	19:30	0.0065	15.86	246.6	0.0039	0.0296	\$1428.3	0.0016	-0.0209	0.1552	0.0016	-0.014
CCV	19:34	0.0047	16.15	120.0	0.0255	0.0183	880.2	0.0027	-0.0161	0.1284	0.0020	0.0114
CCB	19:39	4.83/5	53.3/50	49.4/50	5.24/5	5.12/5	54.8/50	5.25/5	5.22/5	5.18/5	5.21/5	5.26/5
CCB	19:48	0.0010	0.0659	0.0021	-0.002	0.0002	0.1513	0.0002	-0.0007	0.0001	0.0000	0.0000
MCV	19:51	2.39/2.5	26.4/25	24.7/25	2.68/2.5	2.58/2.5	27.2/25	2.69/2.5	2.67/2.5	2.60/2.5	2.64/2.5	2.64/2.5
2805060305 2X	19:55	0.0127	16.17	251.3	-0.0055	0.0831	\$1288.3	0.0027	-0.0213	0.0564	0.0161	-0.0012
2805060311 2X	19:59	0.2959	20.27	285.3	0.0192	0.0462	876.3	0.0006	-0.0188	0.0564	0.0161	0.0131
2805060312 2X	20:03	0.1212	23.01	290.1	0.0192	0.0462	941.3	0.0006	-0.0245	0.0360	0.0149	0.4443
2805060313 2X	20:07	0.0788	29.93	377.6	-0.008	0.0960	\$1505.3	-0.003	-0.0282	0.0364	0.0073	0.2671
2805060314 2X	20:12	0.0185	16.89	258.0	-0.0059	0.0816	\$1309.9	0.0021	-0.0232	0.0617	0.0067	0.1653
2805060315 2X	20:16	0.5697	21.50	199.9	0.0770	0.0483	\$1113.7	0.0011	-0.0178	0.0733	0.0076	0.0224
2805060316 2X	20:20	0.2450	29.85	253.7	0.5524	0.0055	\$1027.1	0.0049	-0.0243	0.0360	0.0172	1.243
2805060317 2X	20:23	0.1358	44.19	153.2	1.162	0.0629	\$2631.4	0.0029	-0.0168	0.0479	0.0057	1.316
2805060318 2X	20:28	0.1001	39.40	161.2	1.774	0.0594	\$2547.2	0.0038	-0.0162	0.1480	0.0057	0.2073
MRLANK2007	20:32	0.0033	0.1366	0.0063	-0.000	0.0000	1.058	0.0002	-0.0019	0.0001	0.0030	0.1527
CCB	20:36	4.56/5	54.0/50	47.2/50	5.21/5	5.10/5	53.7/50	5.23/5	5.21/5	5.16/5	5.20/5	5.37/5
MRI	20:48	0.0008	0.0729	0.0017	-0.002	0.0002	0.2652	0.0004	-0.0019	0.0001	-0.0000	0.0016
MRL2007	20:52	0.019/.02	1.11/1	0.099/.1	0.002/.002	0.020/.02	1.26/1	0.024/.02	0.020/.02	0.002/.002	0.020/.02	0.052/.05
ICSD2007	20:55	0.023/.02	1.20/1	0.109/.1	0.002/.002	0.021/.02	1.36/1	0.024/.02	0.023/.02	0.002/.002	0.025/.02	0.056/.05
LCSD2007	20:55	4.22(5)	20.5/20	17.9/20	0.493/.5	0.954/1	50.3/50	0.495/.5	0.991/1	0.963/1	0.992/1	2.05/2

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LCSD2007	20:59	4.21(5)	20.3/20	17.9/20	0.492/.5	0.941/1	50.4/50	0.488/.5	0.982/1	0.962/1	0.991/1	2.04/2
2805070236_2X	21:03	0.0021	30.64	137.2	0.0413	0.0302	\$1240.3	-0.007	-0.195	0.0472	0.0008	-0.068
2805070236MSD_2X	21:07	4.726	53.52	153.3	0.5846	1.070	\$1240.4	0.5166	1.025	1.119	1.132	2.252
2805070236MSD_2X	21:11	4.495	51.90	148.6	0.5752	1.054	\$1219.9	0.5096	1.002	1.101	1.104	2.209
2805070239_2X	21:14	0.0047	33.20	145.1	0.0112	0.0220	\$119.3	-0.001	-0.191	0.0303	0.0002	0.0035
2805070239MS_2X	21:19	4.595	57.18	166.9	0.5411	1.041	884.0	0.4969	1.004	1.071	1.080	2.253
2805070239MSD_2X	21:23	4.463	55.86	160.4	0.5394	1.029	843.1	0.4909	0.9918	1.070	1.079	2.210
CCV	21:31	4.41(5)	55.7(50)	46.7/50	5.24/5	5.14/5	50.1/50	5.26/5	5.27/5	5.18/5	5.23/5	5.63(5)
CCB	21:39	0.0012	0.0047	0.0023	-0.003	0.0006	0.1319	0.0006	-0.008	0.0001	0.0000	0.0064
MCV	21:45	2.25/2.5	28.3(25)	23.9/25	2.71/2.5	2.62/2.5	25.0/25	2.70/2.5	2.72/2.5	2.61/2.5	2.66/2.5	2.90(2.5)
2805060319_2X	21:49	0.0159	18.85	172.8	0.0309	0.0304	\$1161.1	0.0070	-0.196	0.0802	0.0047	0.0261
2805060320_2X	21:53	0.0918	21.12	166.3	0.0603	0.0218	\$1081.0	0.0020	-0.088	0.0883	0.0145	0.2024
2805070224_10X	21:57	0.0208	57.17	410.8	0.3351	0.0116	\$2203.4	0.0027	-0.088	0.0581	0.0078	0.0022
2805070225_10X	22:02	0.0223	55.31	450.6	0.0917	0.0074	\$2118.3	-0.0012	-0.0643	0.0543	0.0215	-0.024
2805070227_10X	22:06	0.0100	54.34	462.0	-0.0075	0.0024	\$2167.7	0.0005	-0.808	0.0553	0.0295	0.0584
2805070227_10X	22:10	0.1375	64.96	536.8	-0.0005	0.0007	\$2091.8	-0.0002	-0.852	0.0389	0.0295	0.0014
2805070228_10X	22:15	0.0232	63.06	515.3	-0.0020	0.0011	\$2054.1	0.0090	-0.731	0.0329	0.0405	0.0584
2805070229_5X	22:19	1.183	52.21	368.8	0.1367	0.0153	\$1484.0	0.0050	-0.516	0.0646	0.5237	-0.030
2805070230_5X	22:23	0.0082	47.86	384.0	0.0348	0.0014	\$1887.2	0.0016	-0.506	0.0502	0.0098	0.2330
2805070230_5X	22:27	0.0646	52.97	315.1	0.0344	0.0014	\$1576.2	0.0001	-0.439	0.0450	0.0189	0.0343
2805070231_5X	22:35	4.10(5)	58.1(50)	44.5(50)	5.25/5	5.12/5	48.1/50	5.26/5	5.25/5	5.18/5	5.23/5	5.97(5)
CCV	22:44	0.0020	-0.0037	0.0027	-0.0004	0.0004	0.0711	0.0001	0.0001	0.0001	0.0000	0.0045
CCB	22:48	0.0071	46.09	293.7	0.0144	0.0029	\$1527.1	-0.007	-0.395	0.0414	0.0137	0.0045
2805070232_5X	22:52	0.0065	50.99	248.5	0.0305	0.0119	\$1627.9	0.0007	-0.418	0.0539	0.0135	0.0297
2805070233_5X	22:56	0.0337	47.43	217.9	0.0127	0.0170	\$1647.0	0.0009	-0.403	0.0324	0.0324	0.0324
2805070233_5X	23:01	0.0066	43.92	173.9	0.0137	0.0252	\$1403.9	0.0013	-0.282	0.0313	0.0025	0.0141
2805070237_2X	23:05	0.1578	38.71	141.8	0.0621	0.0234	\$1016.6	-0.011	-0.179	0.0494	0.0001	0.0141
2805070238_2X	23:09	0.0094	48.28	196.7	0.0097	0.0117	944.8	-0.013	-0.204	0.0255	-0.003	0.3484
2805070240_2X	23:14	0.8306	49.62	157.3	0.0279	0.0224	746.1	0.0010	-0.220	0.0255	0.0804	-0.026
2805070241_2X	23:17	0.0247	21.21	98.47	0.0088	0.0279	649.9	-0.0001	-0.118	0.0275	0.0113	0.0391
MHLANK2007	23:22	0.0036	-0.0095	0.0059	-0.0004	-0.0002	0.2737	0.0008	-0.021	-0.001	0.0027	0.0512
MRL	23:25	0.017/.02	1.15/1	0.090/1	0.002/.002	0.020/.02	1.07/1	0.022/.02	0.021/.02	0.002/.002	0.020/.02	0.067/.05
CCV	23:33	3.66(5)	59.9(50)	42.2(50)	5.22/5	5.12/5	46.1/50	5.24/5	5.22/5	5.17/5	5.21/5	6.21(5)
CCB	23:42	0.0023	0.0445	0.0036	-0.004	0.0002	0.0587	0.0003	-0.019	0.0001	-0.001	0.0076
MCV	23:48	1.83(2.5)	29.8(25)	21.3(25)	2.66/2.5	2.57/2.5	22.8/25	2.69/2.5	2.67/2.5	2.59/2.5	2.64/2.5	3.12(2.5)
MRL2007	23:51	0.020/.02	1.18/1	0.098/1	0.002/.002	0.023/.02	1.00/1	0.024/.02	0.024/.02	0.003/.002	0.025/.02	0.070/.05
LCSD2007	23:55	3.35(5)	22.6/20	15.8(20)	0.497/.5	0.950/1	43.0/50	0.494/.5	0.988/1	0.971/1	1.00/1	2.35(2)
LCSD2007	23:58	3.33(5)	23.6(20)	16.3(20)	0.499/.5	0.966/1	44.4/50	0.501/.5	1.00/1	0.979/1	1.00/1	2.35(2)
2805080195_2X	0:01	0.0304	14.39	104.0	0.0083	0.0300	602.2	0.0001	-0.096	0.0554	0.0086	0.0619
2805080195MS_2X	0:05	3.321	37.57	113.3	0.5247	1.009	608.9	0.0001	-0.096	0.0554	0.0086	0.0619
2805080195MSD_2X	0:09	3.503	38.57	114.5	0.5386	1.038	613.7	0.5085	1.008	1.090	1.053	2.473
2805080199_2X	0:13	0.0412	17.36	104.7	0.0151	0.0259	652.2	0.0003	-0.180	0.0367	0.0118	2.764
2805080199MS_2X	0:17	3.363	41.14	114.7	0.5300	1.010	661.7	0.4932	0.9803	1.044	1.055	2.661
2805080199MSD_2X	0:21	3.219	40.06	112.8	0.5138	0.9735	654.1	0.4768	0.9435	1.012	1.024	2.661
2805070675_2X	0:24	0.5997	30.47	584.2	1.739	-0.108	\$1612.1	-0.007	-0.298	0.0049	0.0026	2.485
CCV	0:32	3.27(5)	58.7(50)	40.2(50)	5.21/5	5.10/5	42.8(50)	5.23/5	5.21/5	5.16/5	5.20/5	6.30(5)
CCB	0:41	0.0033	-0.0200	0.0043	-0.004	0.0005	0.0422	0.0001	0.0017	0.0001	-0.001	0.0076
2805070677_2X	0:44	0.1461	27.21	265.7	0.1006	0.0041	\$1094.6	-0.0003	-0.141	0.0243	0.0180	0.6327
2805070678_2X	0:49	0.1355	32.16	310.9	0.0118	0.0078	\$1199.9	-0.0001	-0.234	0.0196	0.0046	0.5921
2805070679_2X	0:53	0.1462	21.26	390.8	2.212	0.0125	\$1039.4	0.0049	-0.225	0.0324	0.0057	0.7100

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2805080191_2X	0:58	0.1003	17.33	95.92	0.0201	0.0236	530.6	0.0003	-0.0131	0.0277	0.0063	0.3468
2805080192_2X	1:02	0.1045	12.18	96.17	0.0068	0.0148	514.2	-0.0004	-0.0110	0.0415	0.0010	0.5391
2805080193_2X	1:06	0.0231	11.98	42.62	0.0047	0.0111	219.3	-0.0009	-0.0105	0.0313	0.0013	0.0836
2805080194_2X	1:11	0.0392	30.51	117.3	0.0064	0.0201	569.1	-0.0003	-0.0151	0.0422	0.0019	0.1873
2805080196_2X	1:15	0.0138	42.34	214.9	-0.0045	0.0364	856.5	0.0013	-0.0245	0.0619	0.0069	0.0298
2805080197_2X	1:19	0.0930	0.0264	0.1669	0.0035	-0.0001	0.5455	0.0012	-0.0041	0.0011	0.0064	0.1054
2805080200_5X	1:23	0.0209	74.57	213.6	0.0169	0.0109	39.8(50)	-0.0028	-0.0395	0.0420	0.0102	0.0450
CCV	1:32	2.99(5)	57.2(50)	38.9(50)	5.22/5	5.08/5	1436.1	5.25/5	5.19/5	5.16/5	5.20/5	6.26(5)
CCB	1:41	0.0036	-0.0374	0.0051	-0.0004	0.0005	0.0573	0.0004	-0.0001	0.0001	-0.0002	0.0033
MCV	1:46	1.49(2.5)	27.5(25)	19.7(25)	2.67/2.5	2.58/2.5	19.3(25)	2.68/2.5	2.67/2.5	2.59/2.5	2.63/2.5	3.14(2.5)
2805080201_2X	1:50	0.0323	24.42	78.72	0.1003	0.0316	379.5	-0.0003	-0.0148	0.0282	0.0142	0.1139
2805080202_2X	1:54	0.0340	30.49	116.6	0.0071	0.0211	557.5	-0.0009	-0.0153	0.0424	0.0012	0.1521
2805080646_2X	1:58	0.1771	13.77	63.07	0.0236	0.0145	267.1	0.0008	-0.0083	0.0418	0.0091	0.1044
2805080652_2X	2:03	0.0158	19.25	129.7	-0.0019	0.0136	436.7	-0.0001	-0.0133	0.0407	0.0091	0.0327
2805080653_2X	2:07	0.0655	33.48	164.6	1.941	0.0164	302.0	0.0016	-0.0143	0.0927	0.0055	0.0225
2805080654_2X	2:11	0.2452	32.71	255.6	4.820	-0.0029	420.6	0.0162	-0.0169	0.0305	0.0310	1.695
2805080655_5X	2:16	0.2800	24.48	183.6	0.4667	0.0015	38.3(50)	0.0050	-0.0413	0.0351	0.0305	2.067
ECV	2:22	2.91(5)	55.8(50)	38.6(50)	5.19/5	5.05/5	0.0342	5.23/5	5.20/5	5.14/5	5.18/5	6.24(5)
ECB	2:31	0.0034	-1.1065	0.0050	-1.0004	0.0005	0.0342	0.0008	-0.0009	0.0001	-0.0001	0.0007

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ICV	17:27	N/A	N/A	2.01/2	4.91	10.1/10	4.00/4	99.8/100	4.99/5	9.93	9.91/10	10.1/10
LINEARITY	17:31	N/A	N/A	0.013	0.047	0.001	-.000	292/300	-.001	0.002	0.003	-.008
ICSA	17:34	N/A	N/A	0.013	0.019	0.002	-.000	247/250	-.001	0.000	0.000	-.009
ICSAB	17:38	N/A	N/A	0.303	0.004	0.261/.25	0.248/.25	249/250	0.000	0.240/.25	0.252/.25	0.246/.25
Wash	17:42	N/A	N/A	0.0003	0.0098	0.0000	0.0001	0.0077	0.0003	-.0001	0.0000	0.0006
QC-25 Ippm	17:45	N/A	N/A	0.9713	0.9374	1.062	1.010	1.022	0.9925	1.072	1.040	1.026
CCV	17:48	N/A	N/A	1.00/1	2.51	5.20/5	2.11/2	51.5/50	2.06/2	5.24	5.27/5	5.16/5
ICB	17:54	N/A	N/A	0.0005	0.0162	0.0000	0.0000	-.0020	0.0001	-.0001	0.0001	0.0005
FILTERCHECK	17:57	N/A	N/A	0.010/.01	0.057	0.020/.02	0.001/.001	1.02/1	0.006/.005	0.051/.05	0.010/.01	0.010/.01
MRL2007	18:01	N/A	N/A	0.0004	0.0088	0.0000	0.0000	0.0021	0.0001	0.0000	0.0001	0.0002
MRLANK2007	18:04	N/A	N/A	0.0003	0.0050	0.0000	0.0001	0.0249	0.0001	0.0000	0.0001	0.0000
LCSD2007	18:08	N/A	N/A	0.011/.01	0.055	0.022/.02	0.001/.001	1.11/1	0.007/.005	0.058/.05	0.011/.01	0.011/.01
LCSD2007	18:12	N/A	N/A	0.471/.5	0.465	0.966/1	0.050/.05	48.4/50	0.199/.2	0.591/1	0.984/1	0.977/1
2805060278MSD_2X	18:14	N/A	N/A	0.491/.5	0.481	0.996/1	0.052/.05	49.0/50	0.206/.2	1.02/1	1.01/1	1.01/1
2805060278MSD_2X	18:17	N/A	N/A	0.0002	3.747	0.0219	-.0005	211.0	0.0004	-.0007	1.507	0.0038
2805060278MSD_2X	18:21	N/A	N/A	0.5129	4.264	1.064	0.0535	261.6	0.2168	1.049	2.535	1.056
2805060290MSD_2X	18:25	N/A	N/A	0.5093	4.140	1.051	0.0531	251.1	0.2145	1.040	2.488	1.047
2805060290MSD_2X	18:29	N/A	N/A	-.0000	6.325	0.0299	-.0006	279.5	-.0000	0.0019	0.7271	0.0049
2805060290MSD_2X	18:33	N/A	N/A	0.5165	6.681	1.057	0.0532	319.3	0.2176	1.050	1.756	1.057
CCV	18:37	N/A	N/A	1.01/1	2.59	5.21/5	2.12/2	51.0/50	0.208/2	5.32	5.30/5	5.13/5
CCB	18:53	N/A	N/A	0.0005	0.0191	0.0000	0.0000	-.0011	-.0003	0.0002	0.0000	0.0000
2805060290MSD_2X	18:56	N/A	N/A	0.5269	6.781	1.080	0.0540	324.1	0.2050	1.074	1.803	1.074
2805060277MSD_2X	19:00	N/A	N/A	-.0002	9.916	0.0139	-.0009	571.7	-.0012	-.0002	2.254	0.0056
2805060279MSD_2X	19:05	N/A	N/A	-.0002	6.045	0.0157	-.0009	597.9	-.0009	-.0004	0.1482	0.0056
2805060281MSD_2X	19:09	N/A	N/A	-.0011	10.17	0.0149	-.0010	531.3	-.0008	-.0007	0.2949	0.0048
2805060282MSD_2X	19:13	N/A	N/A	-.0010	7.416	0.0112	-.0010	632.3	-.0008	-.0011	0.2949	0.0048
2805060291MSD_2X	19:18	N/A	N/A	-.0006	5.936	0.0168	-.0009	589.5	-.0012	-.0018	0.2949	0.0048
2805060293MSD_2X	19:22	N/A	N/A	-.0006	10.53	0.0133	-.0010	647.5	-.0009	-.0008	0.8622	0.0048
2805060294MSD_2X	19:26	N/A	N/A	0.0004	0.1642	0.0001	0.0001	0.0641	-.0003	0.0002	0.8622	0.0048
2805060303MSD_2X	19:30	N/A	N/A	-.0008	10.36	0.0131	-.0010	639.5	-.0013	-.0001	0.8432	0.0048
CCV	19:34	N/A	N/A	0.0003	6.329	0.0289	-.0006	264.7	-.0007	0.0025	0.7237	0.0045
CCB	19:39	N/A	N/A	0.0003	5.329	0.0131	-.0010	639.5	-.0013	-.0001	0.8432	0.0045
MCV	19:48	N/A	N/A	1.01/1	2.59	5.15/5	2.12/2	50.0/50	0.0001	0.0025	5.30/5	5.10/5
2805060305MSD_2X	19:51	N/A	N/A	0.505/.5	0.0563	-.0000	1.07/1	25.0/25	-.0001	-.0001	2.69/2.5	2.56/2.5
2805060311MSD_2X	19:55	N/A	N/A	-.0009	6.343	0.0118	-.0009	654.9	-.0010	-.0015	1.770	0.0072
2805060312MSD_2X	19:59	N/A	N/A	-.0015	4.812	0.0168	-.0010	690.2	-.0012	0.0007	0.0288	0.0066
2805060313MSD_2X	20:03	N/A	N/A	-.0005	4.944	0.0144	-.0010	739.5	-.0012	-.0004	0.0306	0.0053
2805060314MSD_2X	20:07	N/A	N/A	-.0005	4.067	0.0188	-.0012	854.8	-.0016	-.0006	0.0802	0.0054
2805060315MSD_2X	20:12	N/A	N/A	-.0009	6.572	0.0132	-.0011	688.1	-.0016	-.0012	1.856	0.0054
2805060316MSD_2X	20:16	N/A	N/A	-.0008	5.524	0.0234	-.0007	427.9	-.0007	-.0005	0.1506	0.0061
2805060317MSD_2X	20:20	N/A	N/A	-.0003	4.249	0.0322	-.0007	596.0	-.0007	0.0005	0.7285	0.0066
2805060318MSD_2X	20:23	N/A	N/A	-.0001	2.831	0.0331	-.0008	323.5	-.0014	-.0001	0.0014	0.0075
MRLANK2007	20:28	N/A	N/A	0.0001	0.0478	0.0331	-.0007	292.5	-.0005	0.0016	0.0012	0.0079
CCV	20:32	N/A	N/A	0.0001	2.594	0.0331	-.0007	48.1/50	-.0002	0.0001	-.0001	0.0000
CCB	20:36	N/A	N/A	1.00/1	2.54	5.10/5	2.10/2	48.1/50	0.0000	0.0002	5.29/5	5.07/5
MRL	20:45	N/A	N/A	0.0304	0.0378	0.021/.02	0.001/.001	1.06/1	0.005/.005	0.055/.05	0.010/.01	0.010/.01
MRL2007	20:48	N/A	N/A	0.010/.01	0.082	0.022/.02	0.001/.001	1.06/1	0.005/.005	0.061/.05	0.011/.01	0.011/.01
LCSD2007	20:52	N/A	N/A	0.011/.01	0.083	0.022/.02	0.001/.001	1.06/1	0.005/.005	0.061/.05	0.011/.01	0.011/.01
LCSD2007	20:55	N/A	N/A	0.468/.5	0.488	0.946/1	0.050/.05	44.7/50	0.186/.2	1.02/1	0.981/1	0.959/1

Sample ID	Time	SCA	YR	AG	B	BA	BE	CA	CD	CO	CR	CU
LCSD2007	20:59	N/A	N/A	0.467/.5	0.489	0.945/1	0.050/.05	44.6/50	0.184/.2	1.01/1	0.987/1	0.955/1
2805070236_2X	21:03	N/A	N/A	-0.001	4.059	0.0359	-0.007	272.4	-0.003	-0.0012	2.496	0.0038
2805070236MSD_2X	21:07	N/A	N/A	0.5356	4.550	1.077	0.0546	312.6	0.2086	1.086	3.549	1.092
2805070239_2X	21:11	N/A	N/A	0.5260	4.459	1.065	0.0536	304.7	0.2058	1.074	3.456	1.067
2805070239MSD_2X	21:14	N/A	N/A	0.0006	3.234	0.0262	-0.007	309.6	-0.010	-0.0006	0.3506	0.0038
2805070239MS_2X	21:19	N/A	N/A	0.5150	3.755	1.042	0.0527	363.6	0.2026	1.048	1.382	1.039
2805070239MSD_2X	21:23	N/A	N/A	0.5136	3.718	1.041	0.0526	350.1	0.2001	1.037	1.381	1.034
CCV	21:31	N/A	N/A	1.01/1	2.60	5.10/5	2.14/2	46.8/50	2.00/2	5.40	5.34/5	5.06/5
CCB	21:35	N/A	N/A	0.0005	0.4558	-0.0000	0.0001	-0.0040	-0.0000	-0.0000	-0.0002	0.0001
MCV	21:45	N/A	N/A	0.508/.5	1.31	2.62/2.5	1.08/1	24.1/25	1.01/1	2.75	2.71/2.5	2.60/2.5
2805060319_2X	21:49	N/A	N/A	-0.006	8.943	0.0122	-0.008	533.2	-0.006	-0.0008	1.335	0.0052
2805060320_2X	21:53	N/A	N/A	-0.002	8.315	0.0206	-0.009	508.9	-0.001	-0.0006	1.279	0.0073
2805070224_10X	21:57	N/A	N/A	0.0027	4.971	0.0649	-0.005	852.5	0.0015	-0.0104	32.12	0.0130
2805070225_10X	22:02	N/A	N/A	0.0002	7.073	0.0694	-0.003	906.8	-0.005	-0.0124	32.12	0.0111
2805070226_10X	22:06	N/A	N/A	-0.007	5.715	0.0657	-0.0018	932.6	0.0057	-0.010	31.23	0.0094
2805070227_10X	22:10	N/A	N/A	-0.0014	6.272	0.0759	-0.0024	*1115.2	-0.0051	-0.0118	31.88	0.0141
2805070228_10X	22:15	N/A	N/A	-0.0008	6.021	0.0736	-0.0020	*1068.9	-0.0054	-0.0116	31.93	0.01349
2805070229_5X	22:19	N/A	N/A	0.0011	13.07	0.0422	-0.0013	676.9	-0.0025	-0.0049	23.46	0.0079
2805070230_5X	22:23	N/A	N/A	0.0002	6.212	0.0593	-0.0017	789.8	-0.0034	-0.0049	23.46	0.0078
2805070231_5X	22:27	N/A	N/A	-0.0005	9.251	0.0416	-0.0012	604.7	-0.0030	-0.0038	14.55	0.0077
CCV	22:35	N/A	N/A	1.01/1	2.60	5.15/5	2.12/2	45.8/50	2.00/2	5.35	5.30/5	5.08/5
CCB	22:44	N/A	N/A	0.0003	0.0497	0.0000	0.0000	-0.0061	0.0000	-0.0001	0.0021	0.0076
2805070232_5X	22:48	N/A	N/A	0.0003	11.78	0.0393	-0.0013	558.5	-0.0031	-0.0046	13.06	0.0085
2805070233_5X	22:52	N/A	N/A	0.0005	15.53	0.0409	-0.0012	450.9	-0.0029	-0.0046	11.62	0.0089
2805070234_5X	22:56	N/A	N/A	0.0002	11.88	0.0379	-0.0010	368.1	-0.0029	-0.0040	9.762	0.0045
2805070235_5X	23:01	N/A	N/A	0.0010	6.380	0.0352	-0.0009	309.3	-0.0012	-0.0038	5.213	0.0045
2805070237_2X	23:05	N/A	N/A	0.0033	3.717	0.0363	-0.0007	305.9	-0.0010	-0.0013	1.282	0.0045
2805070238_2X	23:09	N/A	N/A	-0.0001	3.564	0.0376	-0.0008	413.0	-0.0015	-0.0010	0.0045	0.0045
2805070240_2X	23:14	N/A	N/A	-0.0000	3.441	0.0393	-0.0008	356.5	-0.0012	-0.0020	0.7190	0.0036
2805070241_2X	23:17	N/A	N/A	0.0002	3.283	0.0188	-0.0005	177.9	-0.0004	-0.0018	1.103	0.0045
MRL	23:25	N/A	N/A	0.0004	0.0506	0.0000	0.0000	0.0242	-0.0001	-0.0018	0.0066	0.0035
CCV	23:33	N/A	N/A	1.00/1	2.60	5.14/5	2.12/2	44.1(50)	0.005/0.005	0.054/0.05	0.011/0.01	0.010/0.01
CCB	23:42	N/A	N/A	0.0001	0.0481	-0.0000	0.0001	-0.0101	-0.0003	-0.0000	5.29/5	5.08/5
MCV	23:48	N/A	N/A	0.506/.5	1.31	2.63/2.5	1.06/1	22.2(25)	0.0003	0.0000	2.67/2.5	2.57/2.5
MRL2007	23:51	N/A	N/A	0.011/.01	0.103	0.022/.02	0.001/0.001	0.951/1	0.005/0.005	0.059/0.05	0.012/0.01	0.011/0.01
LCSD2007	23:55	N/A	N/A	0.472/.5	0.508	0.967/1	0.050/0.05	40.8(50)	0.186/0.2	1.01/1	0.986/1	0.974/1
LCSD2007	23:58	N/A	N/A	0.477/.5	0.514	0.975/1	0.051/0.05	42.8/50	0.189/0.2	1.01/1	0.990/1	0.984/1
2805080195_2X	0:01	N/A	N/A	0.0002	2.966	0.0228	-0.0006	195.2	-0.0005	-0.0017	0.0852	0.0042
2805080195MS_2X	0:05	N/A	N/A	0.5086	3.291	1.029	0.0512	224.6	0.1944	1.016	1.074	1.017
2805080195MSD_2X	0:09	N/A	N/A	0.5086	3.341	1.056	0.0526	227.8	-0.0009	1.049	1.102	1.051
2805080199_2X	0:13	N/A	N/A	0.4969	4.170	0.0249	-0.0005	220.0	-0.0009	-0.0008	1.251	0.0037
2805080199MS_2X	0:17	N/A	N/A	0.4805	4.460	0.9974	0.0495	244.9	0.1885	1.013	1.251	1.029
2805080199MSD_2X	0:21	N/A	N/A	0.4805	4.374	0.9974	0.0495	249.2	0.1885	1.013	1.251	1.029
CCV	0:24	N/A	N/A	1.00/1	2.60	5.19/5	2.09/2	42.3(50)	2.00/2	5.23	5.23/5	5.12/5
CCB	0:32	N/A	N/A	0.0001	0.0481	0.0000	0.0000	-0.0119	-0.0000	-0.0001	0.0000	0.0064
2805070677_2X	0:41	N/A	N/A	-0.0006	4.458	0.0394	-0.0008	445.0	-0.0016	-0.0005	0.0000	0.0146
2805070678_2X	0:44	N/A	N/A	-0.0011	4.713	0.0405	-0.0010	524.3	-0.0015	-0.0007	0.0027	0.0146
2805070679_2X	0:49	N/A	N/A	0.0003	2.648	0.0547	-0.0010	483.6	-0.0012	-0.0009	0.0027	0.0058
2805070679_2X	0:53	N/A	N/A	0.0003	2.648	0.0547	-0.0010	483.6	-0.0012	-0.0009	0.0027	0.0058

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Sample ID	Time	SCA	YR	AG	B	BA	BE	CA	CD	CO	CR	CU
2805080191_2X	0:58	N/A	N/A	- .0001	2.977	0.0192	- .0004	170.6	- .0005	- .0008	0.0810	0.0040
2805080192_2X	1:02	N/A	N/A	0.0003	2.468	0.0174	- .0004	182.5	- .0006	- .0009	0.0760	0.0033
2805080193_2X	1:06	N/A	N/A	0.0006	1.213	0.0185	- .0003	109.4	- .0006	- .0011	0.4163	0.0018
2805080194_2X	1:11	N/A	N/A	- .0005	3.132	0.0248	- .0006	254.0	- .0012	- .0013	0.0810	0.0035
2805080196_2X	1:15	N/A	N/A	- .0009	5.229	0.0240	- .0010	553.8	- .0015	- .0016	0.7676	0.0062
2805080197_2X	1:19	N/A	N/A	0.0002	0.1056	0.0037	0.0001	1.463	0.0001	0.0002	0.0013	0.0003
2805080200_5X	1:23	N/A	N/A	- .0006	11.77	0.0373	- .0012	360.8	- .0044	- .0058	0.0077	0.0077
CCV	1:32	N/A	N/A	1.00/1	2.60	0.0373	0.0012	42.0(50)	0.0072	0.0001	5.18/5	5.13/5
CCB	1:41	N/A	N/A	0.0002	0.0510	0.0000	0.0000	- .0146	0.0001	0.0001	0.0000	0.0077
MCV	1:46	N/A	N/A	0.505/.5	1.30	2.67/2.5	0.0000	21.1(25)	1.00/1	2.65	2.63/2.5	2.60/2.5
2805080201_2X	1:50	N/A	N/A	- .0003	2.967	0.0481	- .0004	255.5	- .0005	- .0007	0.0321	0.0038
2805080202_2X	1:54	N/A	N/A	- .0004	3.179	0.0247	- .0006	255.2	- .0015	- .0010	0.0812	0.0038
2805080646_2X	1:58	N/A	N/A	0.0006	1.759	0.0227	- .0006	130.0	- .0011	- .0006	0.0178	0.0027
2805080652_2X	2:03	N/A	N/A	- .0003	5.674	0.0371	- .0006	220.7	- .0008	- .0011	0.0449	0.0030
2805080653_2X	2:07	N/A	N/A	0.0003	4.179	0.0175	- .0005	234.6	- .0008	0.0017	0.3999	0.0038
2805080654_2X	2:11	N/A	N/A	0.0007	6.450	0.0597	- .0006	427.0	- .0005	0.0165	0.4509	0.0129
2805080655_5X	2:16	N/A	N/A	0.0010	7.037	0.0368	- .0009	432.2	- .0038	0.0030	10.99	0.0103
ECV	2:22	N/A	N/A	1.00/1	2.60	5.22/5	2.09/2	41.9(50)	1.99/2	5.15	5.14/5	5.14/5
ECB	2:31	N/A	N/A	0.0001	0.0526	0.0000	0.0000	- .0155	- .0002	- .0001	0.0003	- .0003

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Sample ID	Time	AS	SB	SE	TL
ICV	17:27	N/A	N/A	N/A	N/A
LINEARITY	17:31	N/A	N/A	N/A	N/A
ICSA	17:34	N/A	N/A	N/A	N/A
ICSA	17:38	N/A	N/A	N/A	N/A
Wash	17:42	N/A	N/A	N/A	N/A
QC-25 1ppm	17:45	N/A	N/A	N/A	N/A
CCV	17:48	N/A	N/A	N/A	N/A
ICB	17:54	N/A	N/A	N/A	N/A
MRL	17:57	N/A	N/A	N/A	N/A
FILTERCHECK	18:01	N/A	N/A	N/A	N/A
MBLANK2007	18:04	N/A	N/A	N/A	N/A
MRL2007	18:08	N/A	N/A	N/A	N/A
ICSS2007	18:12	N/A	N/A	N/A	N/A
LCSD2007	18:14	N/A	N/A	N/A	N/A
2805060278_2X	18:17	N/A	N/A	N/A	N/A
2805060278MSD_2X	18:21	N/A	N/A	N/A	N/A
2805060278MSD_2X	18:25	N/A	N/A	N/A	N/A
2805060290_2X	18:29	N/A	N/A	N/A	N/A
2805060290MSD_2X	18:33	N/A	N/A	N/A	N/A
CCV	18:37	N/A	N/A	N/A	N/A
CCB	18:53	0.0018	0.0006	0.0026	-0.0000
2805060290MSD_2X	18:56	1.143	0.5529	1.025	1.017
2805060277_2X	19:00	0.1271	0.0425	-0.0648	0.0341
2805060279_2X	19:05	0.1659	0.0179	-0.0537	0.0256
2805060280_2X	19:09	0.2124	0.0109	-0.0762	0.0235
2805060281_2X	19:13	0.2097	0.0213	-0.0583	0.0265
2805060282_2X	19:18	0.1464	0.0150	-0.0712	0.0334
2805060291_2X	19:22	0.1931	0.0208	-0.0727	0.0328
2805060293_2X	19:26	0.0015	0.0063	-0.0002	0.0058
2805060294_2X	19:30	0.1800	0.0261	-0.0748	0.0333
2805060303_2X	19:34	0.0634	0.0212	-0.0445	0.0190
CCV	19:39	4.79/5	4.88/5	4.95/5	5.27/5
CCB	19:48	0.0000	0.0023	0.0030	0.0026
MCV	19:51	2.38/2.5	2.43/2.5	2.45/2.5	2.71/2.5
2805060305_2X	19:55	0.0860	0.0426	-0.0753	0.0323
2805060311_2X	19:59	0.0280	0.0117	-0.0710	0.0217
2805060312_2X	20:03	0.0361	0.0144	-0.0793	0.0234
2805060313_2X	20:07	0.0155	0.0146	-0.0694	0.0271
2805060314_2X	20:12	0.0911	0.0488	-0.0815	0.0285
2805060315_2X	20:16	0.1698	0.0172	-0.0453	0.0265
2805060316_2X	20:20	0.0738	0.0280	-0.0751	0.0276
2805060317_2X	20:23	0.0630	0.0173	-0.0753	0.0276
2805060318_2X	20:28	0.0310	0.0086	-0.0527	0.0273
MBLANK2007	20:32	0.0010	-0.0003	0.0019	0.0009
CCV	20:36	4.76/5	4.83/5	4.93/5	5.25/5
CCB	20:45	0.0016	0.0034	0.0009	0.0009
MRL	20:48	0.091/0.1	0.046/0.05	0.096/0.1	0.113/0.1
MRL2007	20:52	0.103/0.1	0.053/0.05	0.104/0.1	0.121/0.1
ICSS2007	20:55	0.919/1	0.465/0.5	0.939/1	1.01/1

Sample ID	Time	AS	SB	SE	TL
LCSD2007	20:59	0.911/1	0.456/.5	0.930/1	1.01/1
2805070236_2X	21:03	0.0806	0.0482	-.0513	0.0288
2805070236MS_2X	21:07	1.178	0.5775	1.040	1.034
2805070236MSD_2X	21:11	1.148	0.5744	1.009	1.005
2805070239_2X	21:14	0.0827	0.0163	-.0571	0.0209
2805070239MS_2X	21:19	1.153	0.5304	1.004	1.011
2805070239MSD_2X	21:23	1.131	0.5282	1.009	1.003
CCV	21:31	4.82/5	4.86/5	4.97/5	5.29/5
CCB	21:39	0.0064	0.0005	0.0032	0.0009
MCV	21:45	2.42/2.5	2.47/2.5	2.52/2.5	2.76(2.5)
2805060319_2X	21:49	0.1747	0.0338	-.0406	0.0356
2805060320_2X	21:53	0.1496	0.0379	-.0769	0.0277
2805070224_10X	21:57	-.0922	0.5314	-.2338	0.1149
2805070225_10X	22:02	-.1192	0.5319	-.1928	0.0983
2805070226_10X	22:06	-.1457	0.5560	-.1965	0.0954
2805070227_10X	22:10	-.1732	0.4719	-.2708	0.1216
2805070228_10X	22:15	-.1688	0.5265	-.2465	0.1134
2805070229_5X	22:19	-.0016	0.2862	-.1237	0.0699
2805070230_5X	22:23	-.0302	0.3626	-.1287	0.0686
2805070231_5X	22:27	-.0302	0.2593	-.1557	0.0688
CCV	22:35	4.78/5	4.84/5	4.93/5	5.28/5
CCB	22:44	0.0026	0.0020	0.0017	0.0030
MCV	22:48	-.0394	0.2456	-.1208	0.0620
2805070233_5X	22:52	-.0078	0.2006	-.1451	0.0583
2805070234_5X	22:56	-.0006	0.1719	-.1026	0.0537
2805070235_5X	23:01	0.0162	0.0824	-.1168	0.0387
2805070237_2X	23:05	0.0880	0.0305	-.0491	0.0216
2805070238_2X	23:09	0.0380	0.0213	-.0766	0.0298
2805070240_2X	23:14	0.0839	0.0298	-.0524	0.0281
2805070241_2X	23:17	0.0127	0.0134	-.0378	0.0221
MBLANK2007	23:22	0.0000	0.0004	0.0018	0.0028
MRL	23:25	0.091/.1	0.046/.05	0.097/.1	0.114/.1
CCV	23:33	4.78/5	4.83/5	4.91/5	5.25/5
CCB	23:42	0.0046	0.0026	0.0029	0.0039
MCV	23:48	2.38/2.5	2.43/2.5	2.46/2.5	2.71/2.5
MRL2007	23:51	0.107/.1	0.056/.05	0.095/.1	0.121/.1
LCSD2007	23:55	0.922/1	0.466/.5	0.937/1	1.01/1
LCSD2007	23:58	0.935/1	0.480/.5	0.954/1	1.03/1
2805080195_2X	0:01	0.0678	0.0111	-.0437	0.0230
2805080195MS_2X	0:05	1.067	0.5105	0.9574	0.9908
2805080195MSD_2X	0:09	1.101	0.5237	1.000	1.026
2805080199_2X	0:13	0.0464	0.0145	-.0573	0.0284
2805080199MS_2X	0:17	1.077	0.5094	0.9623	0.9872
2805080199MSD_2X	0:21	1.035	0.4989	0.9227	0.9548
2805070675_2X	0:24	0.1722	0.0185	-.1233	0.0381
CCV	0:32	4.81/5	4.87/5	4.93/5	5.26/5
CCB	0:41	0.0020	0.0046	-.0006	0.0013
MCV	0:44	0.0279	0.0193	-.0857	0.0287
2805070677_2X	0:49	0.0243	0.0228	-.0805	0.0254
2805070678_2X	0:53	0.2158	0.0186	-.0703	0.0305



Sample ID	Time	AS	SB	SE	TL
2805080191_2X	0:58	0.0030	0.0177	-.0463	0.0239
2805080192_2X	1:02	0.1319	0.0092	-.0462	0.0200
2805080193_2X	1:06	0.0161	0.0071	-.0441	0.0183
2805080194_2X	1:11	0.0752	0.0155	-.0778	0.0253
2805080196_2X	1:15	0.1028	0.0304	-.0647	0.0326
2805080197_2X	1:19	0.0031	0.0078	-.0001	0.0016
2805080200_5X	1:23	-.0289	0.2279	-1.080	0.0532
CCV	1:32	4.79/5	4.85/5	4.88/5	5.24/5
CCB	1:41	0.0028	0.0015	0.0017	0.0023
MCV	1:46	2.39/2.5	2.45/2.5	2.45/2.5	2.72/2.5
2805080201_2X	1:50	0.1467	0.0212	-.0344	0.0202
2805080202_2X	1:54	0.0801	0.0129	-.0592	0.0259
2805080646_2X	1:58	0.0586	0.0074	-.0449	0.0208
2805080652_2X	2:03	0.1287	0.0149	-.0620	0.0265
2805080653_2X	2:07	0.0594	0.0170	-.0637	0.0214
2805080654_2X	2:11	0.0009	0.0353	-.0627	0.0397
2805080655_5X	2:16	0.0010	0.2103	-1.421	0.0576
ECV	2:22	4.80/5	4.85/5	4.88/5	5.22/5
ECB	2:31	0.0031	0.0030	-.0010	0.0003

=====  
Analysis Begun

Start Time: 5/18/2008 17:01:04

Plasma On Time: 5/18/2008 15:27:12

Logged In Analyst: Charley Kay

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N2121801  
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Charley Kay\Sample Information\080518A.sif

Batch ID: 080518A

Results Data Set: 080518A

Results Library: C:\pe\Charley Kay\Results\Results.mdb

=====  
Sequence No.: 1

Autosampler Location: 0

Sample ID: Calib Blank 1

Date Collected: 5/18/2008 17:01:22

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

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Mean Data: Calib Blank 1

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sca	410798.2	2181.83	0.53%	100	%
Yr	496655.7	5843.58	1.18%	100	%
Agf	182.8	49.90	27.30%	[0.00]	mg/L
B_tf	194.9	8.85	4.54%	[0.00]	mg/L
Baf	-25.4	2.58	10.15%	[0.00]	mg/L
Bet	-3446.4	0.89	0.03%	[0.00]	mg/L
Caf	3597.4	49.02	1.36%	[0.00]	mg/L
Cdf	33.0	1.88	5.68%	[0.00]	mg/L
Cof	-46.0	1.72	3.74%	[0.00]	mg/L
Crt	125.1	0.37	0.29%	[0.00]	mg/L
Cuf	3062.0	23.81	0.78%	[0.00]	mg/L
Fef	-94.9	4.18	4.40%	[0.00]	mg/L
Kf	128.8	11.00	8.54%	[0.00]	mg/L
Mgf	-535.4	9.98	1.86%	[0.00]	mg/L
Mnf	374.4	2.88	0.77%	[0.00]	mg/L
Mof	12.7	0.17	1.33%	[0.00]	mg/L
Naf	117.4	21.46	18.28%	[0.00]	mg/L
Nif	-45.0	2.60	5.77%	[0.00]	mg/L
Pbf	-19.1	4.78	24.95%	[0.00]	mg/L
Vf	136.1	1.73	1.27%	[0.00]	mg/L
Znf	85.3	3.47	4.07%	[0.00]	mg/L





Na	1	Lin, Calc Int	0.0	5383	0.00000	1.000000
Ni	1	Lin, Calc Int	-0.0	18570	0.00000	1.000000
Pb	1	Lin, Calc Int	0.0	3783	0.00000	1.000000
Sb	1	Lin, Calc Int	0.0	1613	0.00000	1.000000
Se	1	Lin, Calc Int	-0.0	999.5	0.00000	1.000000
Tl	1	Lin, Calc Int	0.0	2205	0.00000	1.000000
V	1	Lin, Calc Int	0.0	146300	0.00000	1.000000
Zn	1	Lin, Calc Int	0.0	37950	0.00000	1.000000

=====  
**Analysis Begun**

Start Time: 5/18/2008 17:27:54  
 Logged In Analyst: Charley Kay  
 Spectrometer Model: Optima 4300 DV, S/N 077N2121801  
 Plasma On Time: 5/18/2008 15:27:12  
 Technique: ICP Continuous  
 Autosampler Model: AS-93plus

Sample Information File: C:\pe\Charley Kay\Sample Information\080518A.sif  
 Batch ID: 080518A  
 Results Data Set: 080518A  
 Results Library: C:\pe\Charley Kay\Results\Results.mdb

=====  
 Sequence No.: 1  
 Sample ID: ICV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:  
 Autosampler Location: 15  
 Date Collected: 5/18/2008 17:27:56  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

-----  
**Nebulizer Parameters: ICV**

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

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**Mean Data: ICV**

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	373545.4	91.0	%	0.02			0.03%
Yr	464184.9	94.7	%	0.35			0.37%
Ag†	485892.6	2.01	mg/L	0.009	2.01 mg/L	0.009	0.44%
	QC value within limits for Ag Recovery = 100.57%						
B_†	127082.5	4.91	mg/L	0.017	4.91 mg/L	0.017	0.35%
	QC value within limits for B_ Recovery = 98.29%						
Ba†	401651.8	10.1	mg/L	0.11	10.1 mg/L	0.11	1.14%
	QC value within limits for Ba Recovery = 100.66%						
Be†	9999803.1	4.00	mg/L	0.003	4.00 mg/L	0.003	0.07%
	QC value within limits for Be Recovery = 100.06%						
Ca†	3084313.2	99.8	mg/L	0.16	99.8 mg/L	0.16	0.16%
	QC value within limits for Ca Recovery = 99.75%						
Cd†	105308.9	4.99	mg/L	0.024	4.99 mg/L	0.024	0.47%
	QC value within limits for Cd Recovery = 99.82%						
Co†	142652.2	9.93	mg/L	0.036	9.93 mg/L	0.036	0.36%
	QC value within limits for Co Recovery = 99.29%						
Cr†	405926.6	9.91	mg/L	0.049	9.91 mg/L	0.049	0.49%
	QC value within limits for Cr Recovery = 99.09%						
Cu†	3013802.1	10.1	mg/L	0.07	10.1 mg/L	0.07	0.73%
	QC value within limits for Cu Recovery = 101.02%						
Fe†	123780.8	9.89	mg/L	0.005	9.89 mg/L	0.005	0.05%
	QC value within limits for Fe Recovery = 98.85%						
K†	132374.2	100	mg/L	0.1	100 mg/L	0.1	0.12%
	QC value within limits for K Recovery = 100.29%						
Mg†	2145640.4	99.4	mg/L	0.14	99.4 mg/L	0.14	0.14%
	QC value within limits for Mg Recovery = 99.40%						
Mn†	4754741.8	10.0	mg/L	0.08	10.0 mg/L	0.08	0.80%
	QC value within limits for Mn Recovery = 100.23%						
Mo†	98404.3	9.88	mg/L	0.047	9.88 mg/L	0.047	0.47%
	QC value within limits for Mo Recovery = 98.78%						
Na†	542795.6	101	mg/L	0.1	101 mg/L	0.1	0.06%
	QC value within limits for Na Recovery = 100.83%						
Ni†	183756.6	9.90	mg/L	0.033	9.90 mg/L	0.033	0.33%
	QC value within limits for Ni Recovery = 98.96%						
Pb†	37447.9	9.90	mg/L	0.021	9.90 mg/L	0.021	0.21%
	QC value within limits for Pb Recovery = 98.99%						
V†	1469435.3	10.1	mg/L	0.07	10.1 mg/L	0.07	0.65%
	QC value within limits for V Recovery = 100.99%						
Zn†	375650.2	9.81	mg/L	0.035	9.81 mg/L	0.035	0.36%
	QC value within limits for Zn Recovery = 98.13%						

All analyte(s) passed QC.

Sequence No.: 2  
 Sample ID: LINEARITY  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 9  
 Date Collected: 5/18/2008 17:31:06  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: LINEARITY

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: LINEARITY

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	355144.5	86.6 %	0.88			1.02%
Yr	447543.0	91.3 %	0.00			0.01%
Ag†	-5439.1	0.0131 mg/L	0.00004	0.0131 mg/L	0.00004	0.31%
	QC value within limits for Ag	Recovery = Not calculated				
B_†	1204.9	0.0475 mg/L	0.00315	0.0475 mg/L	0.00315	6.62%
	QC value within limits for B_	Recovery = Not calculated				
Ba†	57.7	0.00145 mg/L	0.000131	0.00145 mg/L	0.000131	9.05%
	QC value within limits for Ba	Recovery = Not calculated				
Be†	-561.6	-0.00022 mg/L	0.000017	-0.00022 mg/L	0.000017	7.41%
	QC value within limits for Be	Recovery = Not calculated				
Ca†	9015553.4	292 mg/L	1.3	292 mg/L	1.3	0.45%
	QC value within limits for Ca	Recovery = 97.19%				
Cd†	-17.0	-0.00079 mg/L	0.000113	-0.00079 mg/L	0.000113	14.25%
	QC value within limits for Cd	Recovery = Not calculated				
Co†	26.3	0.00183 mg/L	0.000221	0.00183 mg/L	0.000221	12.10%
	QC value within limits for Co	Recovery = Not calculated				
Cr†	113.6	0.00277 mg/L	0.000184	0.00277 mg/L	0.000184	6.65%
	QC value within limits for Cr	Recovery = Not calculated				
Cu†	-2503.8	-0.00838 mg/L	0.000037	-0.00838 mg/L	0.000037	0.45%
	QC value within limits for Cu	Recovery = Not calculated				
Fe†	1208995.6	96.6 mg/L	0.75	96.6 mg/L	0.75	0.78%
	QC value within limits for Fe	Recovery = 96.55%				
K†	406938.6	308 mg/L	2.7	308 mg/L	2.7	0.87%
	QC value within limits for K	Recovery = 102.77%				
Mg†	3984994.0	185 mg/L	0.8	185 mg/L	0.8	0.45%
	QC value within limits for Mg	Recovery = Not calculated				
Mn†	-1175.8	-0.00663 mg/L	0.000028	-0.00663 mg/L	0.000028	0.42%
	QC value within limits for Mn	Recovery = Not calculated				
Mo†	11.4	0.00115 mg/L	0.000580	0.00115 mg/L	0.000580	50.57%
	QC value within limits for Mo	Recovery = Not calculated				
Na†	1598835.5	297 mg/L	3.1	297 mg/L	3.1	1.04%
	QC value within limits for Na	Recovery = 99.00%				
Ni†	6.7	0.00036 mg/L	0.000294	0.00036 mg/L	0.000294	82.03%
	QC value within limits for Ni	Recovery = Not calculated				
Pb†	-15.3	-0.00403 mg/L	0.000247	-0.00403 mg/L	0.000247	6.12%
	QC value within limits for Pb	Recovery = Not calculated				
V†	-252.9	0.00207 mg/L	0.000121	0.00207 mg/L	0.000121	5.87%
	QC value within limits for V	Recovery = Not calculated				
Zn†	853.8	0.0225 mg/L	0.00001	0.0225 mg/L	0.00001	0.03%
	QC value within limits for Zn	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 3  
 Sample ID: ICSA  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 10  
 Date Collected: 5/18/2008 17:34:44  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	370451.0	90.3	%	0.85				0.94%
Yr	457337.3	93.3	%	1.17				1.26%
Ag†	-5344.5	0.0129	mg/L	0.00037	0.0129	mg/L	0.00037	2.83%
	QC value within limits for Ag Recovery = Not calculated							
B_†	471.1	0.0186	mg/L	0.00049	0.0186	mg/L	0.00049	2.66%
	QC value within limits for B_ Recovery = Not calculated							
Ba†	77.1	0.00193	mg/L	0.000208	0.00193	mg/L	0.000208	10.77%
	QC value within limits for Ba Recovery = Not calculated							
Be†	-691.3	-0.00028	mg/L	0.000002	-0.00028	mg/L	0.000002	0.65%
	QC value within limits for Be Recovery = Not calculated							
Ca†	7644399.8	247	mg/L	0.3	247	mg/L	0.3	0.14%
	QC value within limits for Ca Recovery = 98.89%							
Cd†	-26.0	-0.00122	mg/L	0.000006	-0.00122	mg/L	0.000006	0.53%
	QC value within limits for Cd Recovery = Not calculated							
Co†	5.9	0.00041	mg/L	0.000518	0.00041	mg/L	0.000518	125.89%
	QC value within limits for Co Recovery = Not calculated							
Cr†	5.5	0.00013	mg/L	0.000115	0.00013	mg/L	0.000115	85.89%
	QC value within limits for Cr Recovery = Not calculated							
Cu†	-2810.4	-0.00941	mg/L	0.000038	-0.00941	mg/L	0.000038	0.40%
	QC value within limits for Cu Recovery = Not calculated							
Fe†	1191664.8	95.2	mg/L	0.06	95.2	mg/L	0.06	0.06%
	QC value within limits for Fe Recovery = 95.17%							
K†	395.8	0.300	mg/L	0.0581	0.300	mg/L	0.0581	19.38%
	QC value within limits for K Recovery = Not calculated							
Mg†	4969736.6	230	mg/L	0.2	230	mg/L	0.2	0.11%
	QC value within limits for Mg Recovery = 92.14%							
Mn†	-1406.9	-0.00814	mg/L	0.000098	-0.00814	mg/L	0.000098	1.20%
	QC value within limits for Mn Recovery = Not calculated							
Mo†	2.6	0.00026	mg/L	0.000492	0.00026	mg/L	0.000492	189.62%
	QC value within limits for Mo Recovery = Not calculated							
Na†	589.7	0.110	mg/L	0.0027	0.110	mg/L	0.0027	2.42%
	QC value within limits for Na Recovery = Not calculated							
Ni†	-16.7	-0.00090	mg/L	0.000136	-0.00090	mg/L	0.000136	15.13%
	QC value within limits for Ni Recovery = Not calculated							
Pb†	-146.1	-0.0386	mg/L	0.00267	-0.0386	mg/L	0.00267	6.91%
	QC value within limits for Pb Recovery = Not calculated							
V†	-308.0	0.00163	mg/L	0.000078	0.00163	mg/L	0.000078	4.78%
	QC value within limits for V Recovery = Not calculated							
Zn†	674.3	0.0178	mg/L	0.00016	0.0178	mg/L	0.00016	0.91%
	QC value within limits for Zn Recovery = Not calculated							

All analyte(s) passed QC.



Sequence No.: 4  
 Sample ID: ICSAB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 11  
 Date Collected: 5/18/2008 17:38:26  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	367501.6	89.6 %		0.19			0.21%
Yr	454514.7	92.7 %		1.38			1.49%
Ag†	64692.2	0.303 mg/L		0.0007	0.303 mg/L	0.0007	0.25%
QC value less than the lower limit for Ag Recovery = 60.50%							
B_†	158.3	0.00410 mg/L		0.000730	0.00410 mg/L	0.000730	17.82%
QC value within limits for B_ Recovery = Not calculated							
Ba†	10434.5	0.261 mg/L		0.0009	0.261 mg/L	0.0009	0.36%
QC value within limits for Ba Recovery = 104.60%							
Be†	619509.9	0.248 mg/L		0.0004	0.248 mg/L	0.0004	0.15%
QC value within limits for Be Recovery = 99.16%							
Ca†	7694108.6	249 mg/L		0.3	249 mg/L	0.3	0.14%
QC value within limits for Ca Recovery = 99.54%							
Cd†	10475.9	0.494 mg/L		0.0018	0.494 mg/L	0.0018	0.36%
QC value within limits for Cd Recovery = 98.84%							
Co†	3441.8	0.240 mg/L		0.0011	0.240 mg/L	0.0011	0.44%
QC value within limits for Co Recovery = 95.82%							
Cr†	10336.6	0.252 mg/L		0.0007	0.252 mg/L	0.0007	0.27%
QC value within limits for Cr Recovery = 100.92%							
Cu†	73410.2	0.246 mg/L		0.0009	0.246 mg/L	0.0009	0.36%
QC value within limits for Cu Recovery = 98.43%							
Fe†	1198274.8	95.7 mg/L		0.25	95.7 mg/L	0.25	0.26%
QC value within limits for Fe Recovery = 95.70%							
K†	237.0	0.180 mg/L		0.0334	0.180 mg/L	0.0334	18.61%
QC value within limits for K Recovery = Not calculated							
Mg†	4992461.6	231 mg/L		0.6	231 mg/L	0.6	0.25%
QC value within limits for Mg Recovery = 92.57%							
Mn†	119824.6	0.247 mg/L		0.0005	0.247 mg/L	0.0005	0.20%
QC value within limits for Mn Recovery = 98.98%							
Mo†	-7.3	-0.00073 mg/L		0.000014	-0.00073 mg/L	0.000014	1.98%
QC value within limits for Mo Recovery = Not calculated							
Na†	395.0	0.0734 mg/L		0.00267	0.0734 mg/L	0.00267	3.64%
QC value within limits for Na Recovery = Not calculated							
Ni†	8684.8	0.468 mg/L		0.0016	0.468 mg/L	0.0016	0.33%
QC value within limits for Ni Recovery = 93.54%							
Pb†	1727.9	0.457 mg/L		0.0022	0.457 mg/L	0.0022	0.47%
QC value within limits for Pb Recovery = 91.35%							
V†	36506.3	0.255 mg/L		0.0009	0.255 mg/L	0.0009	0.34%
QC value within limits for V Recovery = 101.84%							
Zn†	20260.3	0.530 mg/L		0.0026	0.530 mg/L	0.0026	0.48%
QC value within limits for Zn Recovery = 106.05%							
QC Failed. Continue with analysis.							

Sequence No.: 5  
 Sample ID: Wash  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 5/18/2008 17:42:10  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: Wash

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: Wash

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	409631.6	99.8 %		0.75			0.76%
Yr	497380.1	101 %		0.2			0.24%
Ag†	81.3	0.00034 mg/L		0.000131	0.00034 mg/L	0.000131	38.65%
	QC value within limits for Ag Recovery = Not calculated						
B_†	248.0	0.00976 mg/L		0.000085	0.00976 mg/L	0.000085	0.87%
	QC value within limits for B_ Recovery = Not calculated						
Ba†	0.7	0.00002 mg/L		0.000038	0.00002 mg/L	0.000038	206.35%
	QC value within limits for Ba Recovery = Not calculated						
Be†	130.4	0.00005 mg/L		0.000033	0.00005 mg/L	0.000033	63.67%
	QC value within limits for Be Recovery = Not calculated						
Ca†	239.3	0.00774 mg/L		0.002030	0.00774 mg/L	0.002030	26.24%
	QC value within limits for Ca Recovery = Not calculated						
Cd†	5.4	0.00026 mg/L		0.000173	0.00026 mg/L	0.000173	67.41%
	QC value within limits for Cd Recovery = Not calculated						
Co†	-1.4	-0.00010 mg/L		0.000007	-0.00010 mg/L	0.000007	7.27%
	QC value within limits for Co Recovery = Not calculated						
Cr†	0.3	0.00001 mg/L		0.000008	0.00001 mg/L	0.000008	102.69%
	QC value within limits for Cr Recovery = Not calculated						
Cu†	165.8	0.00056 mg/L		0.000107	0.00056 mg/L	0.000107	19.26%
	QC value within limits for Cu Recovery = Not calculated						
Fe†	77.7	0.00620 mg/L		0.001351	0.00620 mg/L	0.001351	21.78%
	QC value within limits for Fe Recovery = Not calculated						
K†	83.2	0.0630 mg/L		0.00459	0.0630 mg/L	0.00459	7.29%
	QC value within limits for K Recovery = Not calculated						
Mg†	198.4	0.00920 mg/L		0.002478	0.00920 mg/L	0.002478	26.93%
	QC value within limits for Mg Recovery = Not calculated						
Mn†	-99.7	-0.00021 mg/L		0.000007	-0.00021 mg/L	0.000007	3.50%
	QC value within limits for Mn Recovery = Not calculated						
Mo†	4.6	0.00046 mg/L		0.000358	0.00046 mg/L	0.000358	78.34%
	QC value within limits for Mo Recovery = Not calculated						
Na†	8.1	0.00150 mg/L		0.003995	0.00150 mg/L	0.003995	267.01%
	QC value within limits for Na Recovery = Not calculated						
Ni†	5.3	0.00029 mg/L		0.000172	0.00029 mg/L	0.000172	60.18%
	QC value within limits for Ni Recovery = Not calculated						
Pb†	5.3	0.00141 mg/L		0.000572	0.00141 mg/L	0.000572	40.67%
	QC value within limits for Pb Recovery = Not calculated						
V†	7.2	0.00005 mg/L		0.000031	0.00005 mg/L	0.000031	61.94%
	QC value within limits for V Recovery = Not calculated						
Zn†	10.7	0.00028 mg/L		0.000065	0.00028 mg/L	0.000065	23.09%
	QC value within limits for Zn Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 6  
 Sample ID: QC-25 lppm  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 12  
 Date Collected: 5/18/2008 17:45:32  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: QC-25 lppm

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: QC-25 lppm

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	408866.9	99.6 %	0.06			0.06%
Yr	494468.2	101 %	1.3			1.29%
Ag†	234977.7	0.971 mg/L	0.0047	0.971 mg/L	0.0047	0.48%
	QC value within limits for Ag Recovery = 97.13%					
B_†	24039.8	0.937 mg/L	0.0060	0.937 mg/L	0.0060	0.64%
	QC value within limits for B_ Recovery = 93.74%					
Ba†	42393.5	1.06 mg/L	0.006	1.06 mg/L	0.006	0.56%
	QC value within limits for Ba Recovery = 106.24%					
Be†	2523758.3	1.01 mg/L	0.008	1.01 mg/L	0.008	0.77%
	QC value within limits for Be Recovery = 100.99%					
Ca†	31597.0	1.02 mg/L	0.019	1.02 mg/L	0.019	1.81%
	QC value within limits for Ca Recovery = 102.19%					
Cd†	21000.7	0.993 mg/L	0.0058	0.993 mg/L	0.0058	0.58%
	QC value within limits for Cd Recovery = 99.25%					
Co†	15395.4	1.07 mg/L	0.008	1.07 mg/L	0.008	0.78%
	QC value within limits for Co Recovery = 107.16%					
Cr†	42621.4	1.04 mg/L	0.009	1.04 mg/L	0.009	0.83%
	QC value within limits for Cr Recovery = 104.04%					
Cu†	306051.4	1.03 mg/L	0.005	1.03 mg/L	0.005	0.46%
	QC value within limits for Cu Recovery = 102.59%					
Fe†	12584.6	1.01 mg/L	0.014	1.01 mg/L	0.014	1.41%
	QC value within limits for Fe Recovery = 100.50%					
K†	12820.1	9.71 mg/L	0.219	9.71 mg/L	0.219	2.25%
	QC value within limits for K Recovery = 97.13%					
Mg†	22721.0	1.05 mg/L	0.020	1.05 mg/L	0.020	1.87%
	QC value within limits for Mg Recovery = 105.42%					
Mn†	507143.6	1.07 mg/L	0.008	1.07 mg/L	0.008	0.77%
	QC value within limits for Mn Recovery = 106.92%					
Mo†	9687.0	0.972 mg/L	0.0017	0.972 mg/L	0.0017	0.17%
	QC value within limits for Mo Recovery = 97.24%					
Na†	5261.7	0.977 mg/L	0.0342	0.977 mg/L	0.0342	3.50%
	QC value within limits for Na Recovery = 97.74%					
Ni†	20386.4	1.10 mg/L	0.009	1.10 mg/L	0.009	0.85%
	QC value within limits for Ni Recovery = 109.78%					
Pb†	4048.2	1.07 mg/L	0.010	1.07 mg/L	0.010	0.98%
	QC value within limits for Pb Recovery = 107.01%					
V†	144991.6	0.997 mg/L	0.0074	0.997 mg/L	0.0074	0.74%
	QC value within limits for V Recovery = 99.68%					
Zn†	39885.9	1.04 mg/L	0.006	1.04 mg/L	0.006	0.61%
	QC value within limits for Zn Recovery = 104.16%					

All analyte(s) passed QC.

Sequence No.: 7  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 5/18/2008 17:48:40  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	381239.8	92.9 %	0.65			0.70%
Yr	471551.0	96.2 %	0.44			0.46%
Ag†	242670.2	1.00 mg/L	0.018	1.00 mg/L	0.018	1.78%
	QC value within limits for Ag Recovery = 100.46%					
B_†	64917.7	2.51 mg/L	0.047	2.51 mg/L	0.047	1.89%
	QC value within limits for B_ Recovery = 100.42%					
Ba†	207371.5	5.20 mg/L	0.084	5.20 mg/L	0.084	1.61%
	QC value within limits for Ba Recovery = 103.94%					
Be†	5282069.3	2.11 mg/L	0.014	2.11 mg/L	0.014	0.65%
	QC value within limits for Be Recovery = 105.70%					
Ca†	1591313.0	51.5 mg/L	0.05	51.5 mg/L	0.05	0.10%
	QC value within limits for Ca Recovery = 102.93%					
Cd†	43406.9	2.06 mg/L	0.030	2.06 mg/L	0.030	1.47%
	QC value within limits for Cd Recovery = 103.04%					
Co†	75288.8	5.24 mg/L	0.062	5.24 mg/L	0.062	1.18%
	QC value within limits for Co Recovery = 104.80%					
Cr†	216027.6	5.27 mg/L	0.071	5.27 mg/L	0.071	1.35%
	QC value within limits for Cr Recovery = 105.46%					
Cu†	1540262.0	5.16 mg/L	0.011	5.16 mg/L	0.011	0.22%
	QC value within limits for Cu Recovery = 103.26%					
Fe†	64486.3	5.15 mg/L	0.028	5.15 mg/L	0.028	0.53%
	QC value within limits for Fe Recovery = 103.00%					
K†	67422.2	51.1 mg/L	0.30	51.1 mg/L	0.30	0.59%
	QC value within limits for K Recovery = 102.16%					
Mg†	1109842.3	51.4 mg/L	0.17	51.4 mg/L	0.17	0.33%
	QC value within limits for Mg Recovery = 102.83%					
Mn†	2492345.7	5.25 mg/L	0.006	5.25 mg/L	0.006	0.12%
	QC value within limits for Mn Recovery = 105.08%					
Mo†	50871.5	5.11 mg/L	0.071	5.11 mg/L	0.071	1.40%
	QC value within limits for Mo Recovery = 102.13%					
Na†	278793.6	51.8 mg/L	0.18	51.8 mg/L	0.18	0.36%
	QC value within limits for Na Recovery = 103.58%					
Ni†	97409.7	5.25 mg/L	0.074	5.25 mg/L	0.074	1.41%
	QC value within limits for Ni Recovery = 104.91%					
Pb†	19732.4	5.22 mg/L	0.080	5.22 mg/L	0.080	1.53%
	QC value within limits for Pb Recovery = 104.32%					
V†	757727.8	5.21 mg/L	0.006	5.21 mg/L	0.006	0.11%
	QC value within limits for V Recovery = 104.17%					
Zn†	198441.2	5.18 mg/L	0.084	5.18 mg/L	0.084	1.61%
	QC value within limits for Zn Recovery = 103.68%					

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: ICB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 5/18/2008 17:51:47  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	409562.7	99.8	%	0.70			0.70%
Yr	491648.9	100	%	0.6			0.63%
Agf	73.6	0.00030	mg/L	0.000088	0.00030 mg/L	0.000088	28.83%
	QC value within limits for Ag Recovery = Not calculated						
B_f	610.0	0.0240	mg/L	0.00138	0.0240 mg/L	0.00138	5.77%
	QC value greater than the upper limit for B Recovery = Not calculated						
Baf	3.6	0.00009	mg/L	0.000004	0.00009 mg/L	0.000004	4.61%
	QC value within limits for Ba Recovery = Not calculated						
Be_f	133.9	0.00005	mg/L	0.000016	0.00005 mg/L	0.000016	30.13%
	QC value within limits for Be Recovery = Not calculated						
Ca_f	67.4	0.00218	mg/L	0.000886	0.00218 mg/L	0.000886	40.67%
	QC value within limits for Ca Recovery = Not calculated						
Cd_f	5.0	0.00024	mg/L	0.000095	0.00024 mg/L	0.000095	39.79%
	QC value within limits for Cd Recovery = Not calculated						
Co_f	7.3	0.00051	mg/L	0.000062	0.00051 mg/L	0.000062	12.19%
	QC value within limits for Co Recovery = Not calculated						
Cr_f	0.9	0.00002	mg/L	0.000047	0.00002 mg/L	0.000047	222.84%
	QC value within limits for Cr Recovery = Not calculated						
Cu_f	134.7	0.00045	mg/L	0.000080	0.00045 mg/L	0.000080	17.66%
	QC value within limits for Cu Recovery = Not calculated						
Fe_f	10.7	0.00086	mg/L	0.000328	0.00086 mg/L	0.000328	38.33%
	QC value within limits for Fe Recovery = Not calculated						
K_f	66.4	0.0503	mg/L	0.01502	0.0503 mg/L	0.01502	29.86%
	QC value within limits for K Recovery = Not calculated						
Mg_f	18.1	0.00084	mg/L	0.000173	0.00084 mg/L	0.000173	20.50%
	QC value within limits for Mg Recovery = Not calculated						
Mn_f	-94.2	-0.00020	mg/L	0.000001	-0.00020 mg/L	0.000001	0.67%
	QC value within limits for Mn Recovery = Not calculated						
Mo_f	9.5	0.00095	mg/L	0.000295	0.00095 mg/L	0.000295	31.08%
	QC value within limits for Mo Recovery = Not calculated						
Na_f	-10.2	-0.00189	mg/L	0.014808	-0.00189 mg/L	0.014808	784.59%
	QC value within limits for Na Recovery = Not calculated						
Ni_f	11.3	0.00061	mg/L	0.000233	0.00061 mg/L	0.000233	38.18%
	QC value within limits for Ni Recovery = Not calculated						
Pb_f	1.8	0.00047	mg/L	0.000029	0.00047 mg/L	0.000029	6.24%
	QC value within limits for Pb Recovery = Not calculated						
V_f	4.0	0.00003	mg/L	0.000073	0.00003 mg/L	0.000073	265.58%
	QC value within limits for V Recovery = Not calculated						
Zn_f	4.5	0.00011	mg/L	0.000153	0.00011 mg/L	0.000153	134.49%
	QC value within limits for Zn Recovery = Not calculated						
QC Failed. Retry.							

Sequence No.: 9  
 Sample ID: ICB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 5/18/2008 17:54:20  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	407185.5	99.2	%	0.03			0.03%
Yr	498496.7	102	%	0.6			0.55%
Ag†	111.9	0.00046	mg/L	0.000077	0.00046 mg/L	0.000077	16.62%
	QC value within limits for Ag	Recovery = Not calculated					
B_†	411.0	0.0162	mg/L	0.00006	0.0162 mg/L	0.00006	0.38%
	QC value within limits for B_	Recovery = Not calculated					
Ba†	1.0	0.00003	mg/L	0.000103	0.00003 mg/L	0.000103	407.18%
	QC value within limits for Ba	Recovery = Not calculated					
Be†	36.5	0.00001	mg/L	0.000036	0.00001 mg/L	0.000036	249.46%
	QC value within limits for Be	Recovery = Not calculated					
Ca†	-62.2	-0.00201	mg/L	0.000770	-0.00201 mg/L	0.000770	38.26%
	QC value within limits for Ca	Recovery = Not calculated					
Cd†	3.1	0.00015	mg/L	0.000211	0.00015 mg/L	0.000211	145.26%
	QC value within limits for Cd	Recovery = Not calculated					
Co†	-1.2	-0.00008	mg/L	0.000266	-0.00008 mg/L	0.000266	319.69%
	QC value within limits for Co	Recovery = Not calculated					
Cr†	2.7	0.00006	mg/L	0.000041	0.00006 mg/L	0.000041	63.11%
	QC value within limits for Cr	Recovery = Not calculated					
Cu†	138.9	0.00046	mg/L	0.000064	0.00046 mg/L	0.000064	13.71%
	QC value within limits for Cu	Recovery = Not calculated					
Fe†	5.5	0.00044	mg/L	0.000098	0.00044 mg/L	0.000098	22.23%
	QC value within limits for Fe	Recovery = Not calculated					
K†	43.3	0.0328	mg/L	0.00318	0.0328 mg/L	0.00318	9.68%
	QC value within limits for K	Recovery = Not calculated					
Mg†	9.1	0.00042	mg/L	0.000139	0.00042 mg/L	0.000139	32.96%
	QC value within limits for Mg	Recovery = Not calculated					
Mn†	-109.4	-0.00023	mg/L	0.000003	-0.00023 mg/L	0.000003	1.20%
	QC value within limits for Mn	Recovery = Not calculated					
Mo†	3.8	0.00038	mg/L	0.000488	0.00038 mg/L	0.000488	129.16%
	QC value within limits for Mo	Recovery = Not calculated					
Na†	-36.5	-0.00678	mg/L	0.002797	-0.00678 mg/L	0.002797	41.25%
	QC value within limits for Na	Recovery = Not calculated					
Ni†	10.3	0.00055	mg/L	0.000062	0.00055 mg/L	0.000062	11.09%
	QC value within limits for Ni	Recovery = Not calculated					
Pb†	-0.9	-0.00024	mg/L	0.000417	-0.00024 mg/L	0.000417	175.14%
	QC value within limits for Pb	Recovery = Not calculated					
V†	12.8	0.00009	mg/L	0.000098	0.00009 mg/L	0.000098	111.96%
	QC value within limits for V	Recovery = Not calculated					
Zn†	1.2	0.00003	mg/L	0.000137	0.00003 mg/L	0.000137	476.80%
	QC value within limits for Zn	Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: MRL  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 20  
 Date Collected: 5/18/2008 17:57:42  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: MRL

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: MRL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	416797.0	102	%	1.4			1.39%
Yr	490908.4	100	%	0.4			0.45%
Ag†	2506.8	0.0104	mg/L	0.00043	0.0104 mg/L	0.00043	4.16%
	QC value within limits for Ag Recovery = 103.65%						
B_†	1461.3	0.0573	mg/L	0.00125	0.0573 mg/L	0.00125	2.18%
	QC value within limits for B_ Recovery = 114.70%						
Ba†	808.3	0.0203	mg/L	0.00033	0.0203 mg/L	0.00033	1.61%
	QC value within limits for Ba Recovery = 101.29%						
Be†	2723.1	0.00109	mg/L	0.000031	0.00109 mg/L	0.000031	2.82%
	QC value within limits for Be Recovery = 109.11%						
Ca†	31095.5	1.01	mg/L	0.006	1.01 mg/L	0.006	0.64%
	QC value within limits for Ca Recovery = 100.57%						
Cd†	122.1	0.00591	mg/L	0.000028	0.00591 mg/L	0.000028	0.48%
	QC value within limits for Cd Recovery = 118.16%						
Co†	739.9	0.0515	mg/L	0.00122	0.0515 mg/L	0.00122	2.38%
	QC value within limits for Co Recovery = 102.99%						
Cr†	411.7	0.0101	mg/L	0.00029	0.0101 mg/L	0.00029	2.87%
	QC value within limits for Cr Recovery = 100.50%						
Cu†	3050.4	0.0102	mg/L	0.00037	0.0102 mg/L	0.00037	3.65%
	QC value within limits for Cu Recovery = 102.48%						
Fe†	251.1	0.0201	mg/L	0.00009	0.0201 mg/L	0.00009	0.43%
	QC value within limits for Fe Recovery = 100.26%						
K†	1306.5	0.990	mg/L	0.0062	0.990 mg/L	0.0062	0.63%
	QC value within limits for K Recovery = 98.98%						
Mg†	2224.2	0.103	mg/L	0.0005	0.103 mg/L	0.0005	0.45%
	QC value within limits for Mg Recovery = 103.06%						
Mn†	868.6	0.00183	mg/L	0.000052	0.00183 mg/L	0.000052	2.86%
	QC value within limits for Mn Recovery = 91.45%						
Mo†	196.3	0.0197	mg/L	0.00038	0.0197 mg/L	0.00038	1.95%
	QC value within limits for Mo Recovery = 98.53%						
Na†	5313.4	0.987	mg/L	0.0074	0.987 mg/L	0.0074	0.75%
	QC value within limits for Na Recovery = 98.70%						
Ni†	389.0	0.0209	mg/L	0.00068	0.0209 mg/L	0.00068	3.27%
	QC value within limits for Ni Recovery = 104.74%						
Pb†	79.0	0.0209	mg/L	0.00039	0.0209 mg/L	0.00039	1.85%
	QC value within limits for Pb Recovery = 104.43%						
V†	280.3	0.00197	mg/L	0.000044	0.00197 mg/L	0.000044	2.22%
	QC value within limits for V Recovery = 98.65%						
Zn†	752.6	0.0197	mg/L	0.00029	0.0197 mg/L	0.00029	1.45%
	QC value within limits for Zn Recovery = 98.25%						

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: FILTERCHECK  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 18  
 Date Collected: 5/18/2008 18:01:18  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: FILTERCHECK

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: FILTERCHECK

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sca	408971.8	99.7 %		0.82				0.82%
Yr	488235.3	99.6 %		0.27				0.27%
Agf	97.6	0.00040 mg/L		0.000047	0.00040 mg/L		0.000047	11.57%
B_f	224.6	0.00884 mg/L		0.000408	0.00884 mg/L		0.000408	4.61%
Baf	0.0	0.00000 mg/L		0.000088	0.00000 mg/L		0.000088	>999.9%
Set	123.6	0.00005 mg/L		0.000023	0.00005 mg/L		0.000023	47.01%
Cat	64.2	0.00208 mg/L		0.000984	0.00208 mg/L		0.000984	47.37%
Cdt	2.0	0.00010 mg/L		0.000034	0.00010 mg/L		0.000034	35.01%
Cot	-0.3	-0.00002 mg/L		0.000156	-0.00002 mg/L		0.000156	888.01%
Crt	3.7	0.00009 mg/L		0.000089	0.00009 mg/L		0.000089	99.38%
Cut	52.9	0.00018 mg/L		0.000347	0.00018 mg/L		0.000347	195.85%
Fef	5.1	0.00041 mg/L		0.000261	0.00041 mg/L		0.000261	64.19%
Kf	64.2	0.0486 mg/L		0.00318	0.0486 mg/L		0.00318	6.53%
Mgf	16.5	0.00077 mg/L		0.000338	0.00077 mg/L		0.000338	44.15%
Mnt	-101.5	-0.00021 mg/L		0.000008	-0.00021 mg/L		0.000008	3.56%
Mof	3.6	0.00037 mg/L		0.000320	0.00037 mg/L		0.000320	87.66%
Naf	-63.1	-0.0117 mg/L		0.00590	-0.0117 mg/L		0.00590	50.29%
Nit	10.5	0.00057 mg/L		0.000320	0.00057 mg/L		0.000320	56.47%
Ebt	-1.9	-0.00051 mg/L		0.001324	-0.00051 mg/L		0.001324	258.39%
Vt	4.7	0.00003 mg/L		0.000077	0.00003 mg/L		0.000077	233.27%
Znt	-10.6	-0.00028 mg/L		0.000111	-0.00028 mg/L		0.000111	39.29%



Sequence No.: 12  
 Sample ID: MBLANK2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 38  
 Date Collected: 5/18/2008 18:04:53  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: MBLANK2007

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: MBLANK2007

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	424406.4	103	%	0.5				0.44%
Yr	503632.9	103	%	0.1				0.06%
Agf	70.1	0.00029	mg/L	0.000242	0.00029	mg/L	0.000242	83.55%
B_f	127.8	0.00503	mg/L	0.000092	0.00503	mg/L	0.000092	1.83%
Bat	1.1	0.00003	mg/L	0.000072	0.00003	mg/L	0.000072	269.53%
Bei	174.4	0.00007	mg/L	0.000029	0.00007	mg/L	0.000029	41.75%
Ca†	771.1	0.0249	mg/L	0.00020	0.0249	mg/L	0.00020	0.78%
Cdf	1.4	0.00007	mg/L	0.000032	0.00007	mg/L	0.000032	46.77%
Cof	0.6	0.00004	mg/L	0.000118	0.00004	mg/L	0.000118	284.47%
Crt	-13.4	-0.00033	mg/L	0.000014	-0.00033	mg/L	0.000014	4.18%
Cut	7.5	0.00003	mg/L	0.000007	0.00003	mg/L	0.000007	27.57%
Fef	15.1	0.00121	mg/L	0.000578	0.00121	mg/L	0.000578	47.95%
K†	38.4	0.0291	mg/L	0.00267	0.0291	mg/L	0.00267	9.18%
Mgf	32.4	0.00150	mg/L	0.000040	0.00150	mg/L	0.000040	2.68%
Mnt	-163.0	-0.00034	mg/L	0.000011	-0.00034	mg/L	0.000011	3.08%
Mof	-1.6	-0.00016	mg/L	0.000243	-0.00016	mg/L	0.000243	148.73%
Naf	32.0	0.00594	mg/L	0.000327	0.00594	mg/L	0.000327	5.50%
Nit	11.1	0.00060	mg/L	0.000122	0.00060	mg/L	0.000122	20.29%
Pbt	-4.6	-0.00121	mg/L	0.000280	-0.00121	mg/L	0.000280	23.10%
V†	-10.3	-0.00007	mg/L	0.000046	-0.00007	mg/L	0.000046	63.52%
Znf	121.3	0.00319	mg/L	0.000166	0.00319	mg/L	0.000166	5.21%

Sequence No.: 13  
 Sample ID: MRL2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 24  
 Date Collected: 5/18/2008 18:08:28  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: MRL2007

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: MRL2007

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sca	418079.5	102	%	0.2				0.18%
Yr	499343.2	102	%	0.6				0.57%
Agf	2615.2	0.0108	mg/L	0.00008	0.0108	mg/L	0.00008	0.73%
B_f	1406.9	0.0552	mg/L	0.00022	0.0552	mg/L	0.00022	0.40%
Bar	883.5	0.0221	mg/L	0.00001	0.0221	mg/L	0.00001	0.04%
BeF	2869.0	0.00115	mg/L	0.000002	0.00115	mg/L	0.000002	0.21%
Caf	34355.9	1.11	mg/L	0.008	1.11	mg/L	0.008	0.69%
Cdf	134.8	0.00653	mg/L	0.000060	0.00653	mg/L	0.000060	0.92%
Cof	836.2	0.0582	mg/L	0.00032	0.0582	mg/L	0.00032	0.56%
Crf	449.4	0.0110	mg/L	0.00019	0.0110	mg/L	0.00019	1.76%
Cuf	3408.9	0.0115	mg/L	0.00012	0.0115	mg/L	0.00012	1.01%
Fef	302.8	0.0242	mg/L	0.00043	0.0242	mg/L	0.00043	1.79%
Kf	1453.4	1.10	mg/L	0.006	1.10	mg/L	0.006	0.51%
Mgf	2439.2	0.113	mg/L	0.0005	0.113	mg/L	0.0005	0.46%
Mnf	929.9	0.00196	mg/L	0.000010	0.00196	mg/L	0.000010	0.50%
Mof	210.4	0.0211	mg/L	0.00008	0.0211	mg/L	0.00008	0.36%
Naf	5748.3	1.07	mg/L	0.015	1.07	mg/L	0.015	1.38%
Nif	433.2	0.0233	mg/L	0.00015	0.0233	mg/L	0.00015	0.65%
Pbf	83.1	0.0220	mg/L	0.00144	0.0220	mg/L	0.00144	6.57%
Vf	314.5	0.00221	mg/L	0.000035	0.00221	mg/L	0.000035	1.58%
Znf	948.8	0.0248	mg/L	0.00016	0.0248	mg/L	0.00016	0.64%

Sequence No.: 14  
 Sample ID: LCS2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 39  
 Date Collected: 5/18/2008 18:12:05  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: LCS2007

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: LCS2007

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sca	398841.7	97.2	%	0.05				0.06%
Yr	483502.2	98.6	%	0.52				0.53%
Agf	113563.4	0.471	mg/L	0.0012	0.471	mg/L	0.0012	0.26%
B_tf	12016.9	0.465	mg/L	0.0054	0.465	mg/L	0.0054	1.16%
Baf	38555.5	0.966	mg/L	0.0097	0.966	mg/L	0.0097	1.00%
Bef	124505.1	0.0500	mg/L	0.00004	0.0500	mg/L	0.00004	0.08%
Caf	1495015.8	48.4	mg/L	0.14	48.4	mg/L	0.14	0.29%
Cdf	4167.8	0.199	mg/L	0.0012	0.199	mg/L	0.0012	0.59%
Cof	14244.0	0.991	mg/L	0.0105	0.991	mg/L	0.0105	1.06%
Crf	40317.8	0.984	mg/L	0.0167	0.984	mg/L	0.0167	1.69%
Cuf	291369.4	0.977	mg/L	0.0012	0.977	mg/L	0.0012	0.12%
Fef	59903.7	4.78	mg/L	0.012	4.78	mg/L	0.012	0.24%
Kf	25137.4	19.0	mg/L	0.13	19.0	mg/L	0.13	0.66%
Mgf	416934.2	19.3	mg/L	0.02	19.3	mg/L	0.02	0.09%
Mnf	234954.9	0.495	mg/L	0.0000	0.495	mg/L	0.0000	0.00%
Mof	9455.3	0.949	mg/L	0.0104	0.949	mg/L	0.0104	1.10%
Naf	263849.2	49.0	mg/L	0.26	49.0	mg/L	0.26	0.53%
Nif	9224.4	0.497	mg/L	0.0041	0.497	mg/L	0.0041	0.82%
Pbf	3749.0	0.991	mg/L	0.0239	0.991	mg/L	0.0239	2.42%
Vf	140611.5	0.967	mg/L	0.0008	0.967	mg/L	0.0008	0.08%
Znf	37821.0	0.991	mg/L	0.0108	0.991	mg/L	0.0108	1.09%

Sequence No.: 15  
 Sample ID: LCSD2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 40  
 Date Collected: 5/18/2008 18:14:29  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: LCSD2007

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: LCSD2007

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc.	Units	
Sca	397850.0		97.0 %	0.76			0.78%
Yr	489339.8		99.8 %	1.06			1.06%
Agf	118283.5		0.491 mg/L	0.0008	0.491 mg/L	0.0008	0.17%
B_tf	12437.0		0.481 mg/L	0.0016	0.481 mg/L	0.0016	0.33%
Baf	39751.8		0.996 mg/L	0.0011	0.996 mg/L	0.0011	0.11%
Bef	129935.7		0.0521 mg/L	0.00025	0.0521 mg/L	0.00025	0.49%
Caf	1513879.7		49.0 mg/L	0.55	49.0 mg/L	0.55	1.12%
Cdf	4300.1		0.206 mg/L	0.0003	0.206 mg/L	0.0003	0.12%
Cof	14595.9		1.02 mg/L	0.006	1.02 mg/L	0.006	0.57%
Crf	41447.1		1.01 mg/L	0.005	1.01 mg/L	0.005	0.51%
Cuf	302647.1		1.01 mg/L	0.000	1.01 mg/L	0.000	0.03%
Fef	61901.3		4.94 mg/L	0.023	4.94 mg/L	0.023	0.47%
Kf	26376.9		20.0 mg/L	0.26	20.0 mg/L	0.26	1.29%
Mgf	432351.0		20.0 mg/L	0.08	20.0 mg/L	0.08	0.40%
Mnf	244136.7		0.514 mg/L	0.0006	0.514 mg/L	0.0006	0.12%
Mof	9718.6		0.976 mg/L	0.0063	0.976 mg/L	0.0063	0.65%
Naf	278981.8		51.8 mg/L	0.29	51.8 mg/L	0.29	0.56%
Nif	9481.5		0.511 mg/L	0.0016	0.511 mg/L	0.0016	0.31%
Pbf	3853.8		1.02 mg/L	0.003	1.02 mg/L	0.003	0.31%
Vf	146768.7		1.01 mg/L	0.001	1.01 mg/L	0.001	0.12%
Znf	38902.3		1.02 mg/L	0.008	1.02 mg/L	0.008	0.74%

Sequence No.: 16  
 Sample ID: 2805060278\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 41  
 Date Collected: 5/18/2008 18:17:33  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060278\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805060278\_2X

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	374203.5	91.2 %	0.70			0.77%
Yr	469760.5	95.8 %	0.05			0.05%
Agf	19.9	0.00008 mg/L	0.000169	0.00017 mg/L	0.000339	205.01%
B_f	47569.7	1.87 mg/L	0.001	3.75 mg/L	0.002	0.04%
Baf	437.9	0.0110 mg/L	0.00011	0.0219 mg/L	0.00022	0.98%
Bef	-870.5	-0.00023 mg/L	0.000005	-0.00045 mg/L	0.000009	2.10%
Ca†	3262499.9	106 mg/L	0.1	211 mg/L	0.1	0.06%
Cdf	4.2	0.00020 mg/L	0.000244	0.00040 mg/L	0.000488	123.18%
Cof	-4.8	-0.00033 mg/L	0.000115	-0.00067 mg/L	0.000230	34.37%
Crt	30859.8	0.753 mg/L	0.0035	1.51 mg/L	0.007	0.46%
Cuf	566.7	0.00191 mg/L	0.000061	0.00382 mg/L	0.000123	3.20%
Fef	21.1	0.00168 mg/L	0.000433	0.00336 mg/L	0.000865	25.72%
K†	7739.7	5.86 mg/L	0.004	11.7 mg/L	0.01	0.07%
Mgf	1156132.7	53.6 mg/L	0.12	107 mg/L	0.2	0.22%
Mnt	7923.5	0.0155 mg/L	0.00013	0.0310 mg/L	0.00026	0.85%
Mof	64.7	0.00650 mg/L	0.000052	0.0130 mg/L	0.00010	0.80%
Naf	1357810.8	252 mg/L	1.8	504 mg/L	3.7	0.73%
Nit	6.3	0.00034 mg/L	0.000535	0.00068 mg/L	0.001069	158.05%
Pbf	-17.9	-0.00473 mg/L	0.002614	-0.00945 mg/L	0.005228	55.30%
V†	6585.5	0.0487 mg/L	0.00049	0.0974 mg/L	0.00098	1.00%
Znt	26.6	0.00068 mg/L	0.000106	0.00135 mg/L	0.000213	15.75%

Sequence No.: 17

Sample ID: 2805060278MS\_2X

Analyst:

Initial Sample Wt:

Dilution: 2X

Autosampler Location: 42

Date Collected: 5/18/2008 18:21:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: 2805060278MS\_2X

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

Mean Data: 2805060278MS\_2X

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sca	374302.8	91.2 %	%	0.27			0.29%
Yr	471204.7	96.1 %	%	0.68			0.71%
Agf	61839.1	0.256 mg/L	mg/L	0.0005	0.513 mg/L	0.0011	0.21%
B_f	54250.5	2.13 mg/L	mg/L	0.006	4.26 mg/L	0.011	0.26%
Baf	21228.6	0.532 mg/L	mg/L	0.0002	1.06 mg/L	0.000	0.04%
Bef	66343.1	0.0267 mg/L	mg/L	0.00008	0.0535 mg/L	0.00017	0.31%
Caf	4043797.7	131 mg/L	mg/L	1.2	262 mg/L	2.5	0.94%
Cdf	2266.7	0.108 mg/L	mg/L	0.0002	0.217 mg/L	0.0003	0.14%
Cof	7533.9	0.524 mg/L	mg/L	0.0019	1.05 mg/L	0.004	0.35%
Crf	51926.1	1.27 mg/L	mg/L	0.005	2.53 mg/L	0.011	0.41%
Cuf	157568.1	0.528 mg/L	mg/L	0.0021	1.06 mg/L	0.004	0.40%
Fef	32540.9	2.60 mg/L	mg/L	0.008	5.20 mg/L	0.016	0.31%
Kf	21868.8	16.6 mg/L	mg/L	0.04	33.1 mg/L	0.09	0.27%
Mgf	1372621.0	63.6 mg/L	mg/L	0.65	127 mg/L	1.3	1.02%
Mnf	135353.9	0.284 mg/L	mg/L	0.0012	0.568 mg/L	0.0024	0.42%
Mof	5123.4	0.514 mg/L	mg/L	0.0007	1.03 mg/L	0.001	0.14%
Naf	1506119.8	280 mg/L	mg/L	4.5	560 mg/L	8.9	1.59%
Nif	4745.9	0.256 mg/L	mg/L	0.0000	0.511 mg/L	0.0000	0.01%
Pbf	1916.5	0.507 mg/L	mg/L	0.0028	1.01 mg/L	0.006	0.56%
Vf	82702.6	0.572 mg/L	mg/L	0.0011	1.14 mg/L	0.002	0.19%
Znf	20564.0	0.539 mg/L	mg/L	0.0012	1.08 mg/L	0.002	0.21%

Sequence No.: 18  
Sample ID: 2805060278MSD\_2X  
Analyst:  
Initial Sample Wt:  
Dilution: 2X

Autosampler Location: 43  
Date Collected: 5/18/2008 18:25:31  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

Nebulizer Parameters: 2805060278MSD\_2X

Analyte Back Pressure Flow  
All 214.0 kPa 0.65 L/min

Mean Data: 2805060278MSD\_2X

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sca	376778.0	91.8	%	0.78				0.85%
Yr	468967.6	95.6	%	0.77				0.81%
Agf	61397.6	0.255	mg/L	0.0005	0.509	mg/L	0.0010	0.20%
B_t	52673.4	2.07	mg/L	0.001	4.14	mg/L	0.003	0.06%
Baf	20967.1	0.525	mg/L	0.0039	1.05	mg/L	0.008	0.74%
Bef	65909.2	0.0266	mg/L	0.00012	0.0531	mg/L	0.00025	0.46%
Caf	3881966.4	126	mg/L	1.2	251	mg/L	2.4	0.95%
Cdf	2242.9	0.107	mg/L	0.0010	0.215	mg/L	0.0020	0.95%
Cof	7474.0	0.520	mg/L	0.0063	1.04	mg/L	0.013	1.21%
Crf	50963.7	1.24	mg/L	0.020	2.49	mg/L	0.039	1.57%
Cuf	156158.2	0.523	mg/L	0.0020	1.05	mg/L	0.004	0.37%
Fef	31978.2	2.55	mg/L	0.021	5.11	mg/L	0.042	0.83%
Kf	21347.5	16.2	mg/L	0.12	32.3	mg/L	0.25	0.77%
Mgf	1315018.6	60.9	mg/L	0.67	122	mg/L	1.3	1.11%
Mnf	134373.1	0.282	mg/L	0.0009	0.564	mg/L	0.0019	0.33%
Mof	5085.1	0.510	mg/L	0.0055	1.02	mg/L	0.011	1.08%
Naf	1441624.3	268	mg/L	2.2	536	mg/L	4.4	0.83%
Nif	4715.0	0.254	mg/L	0.0025	0.508	mg/L	0.0051	0.99%
Pbf	1898.7	0.502	mg/L	0.0035	1.00	mg/L	0.007	0.71%
Vf	81965.1	0.567	mg/L	0.0016	1.13	mg/L	0.003	0.28%
Znf	20396.8	0.535	mg/L	0.0056	1.07	mg/L	0.011	1.05%

Sequence No.: 19  
 Sample ID: 2805060290\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 44  
 Date Collected: 5/18/2008 18:29:12  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: 2805060290\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: 2805060290\_2X

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	361689.4	88.1	%	0.64				0.73%
Yr	461122.4	94.0	%	0.53				0.56%
Agf	-4.6	-0.00002	mg/L	0.000140	-0.00004	mg/L	0.000280	780.27%
B_f	80321.9	3.16	mg/L	0.007	6.33	mg/L	0.014	0.23%
Baf	596.8	0.0150	mg/L	0.00018	0.0299	mg/L	0.00036	1.20%
Bef	-912.0	-0.00031	mg/L	0.000017	-0.00061	mg/L	0.000033	5.39%
Ca	4320757.7	140	mg/L	2.4	279	mg/L	4.8	1.70%
Cdf	-0.2	-0.00001	mg/L	0.000042	-0.00001	mg/L	0.000084	816.49%
Cof	13.5	0.00094	mg/L	0.000078	0.00187	mg/L	0.000157	8.37%
Crf	14892.9	0.364	mg/L	0.0007	0.727	mg/L	0.0014	0.20%
Cuf	726.0	0.00245	mg/L	0.000375	0.00491	mg/L	0.000751	15.30%
Fef	35.1	0.00280	mg/L	0.000527	0.00560	mg/L	0.001054	18.81%
Kf	10368.7	7.86	mg/L	0.055	15.7	mg/L	0.11	0.70%
Mgf	1384517.4	64.1	mg/L	1.13	128	mg/L	2.3	1.76%
Mnf	6812.2	0.0129	mg/L	0.00010	0.0258	mg/L	0.00020	0.77%
Mof	101.1	0.0101	mg/L	0.00004	0.0203	mg/L	0.00009	0.43%
Naf	2344039.1	435	mg/L	9.3	871	mg/L	18.6	2.14%
Nif	8.7	0.00047	mg/L	0.000515	0.00093	mg/L	0.001031	110.44%
Pbf	-25.0	-0.00661	mg/L	0.001440	-0.0132	mg/L	0.00288	21.78%
Vf	9388.8	0.0660	mg/L	0.00052	0.132	mg/L	0.0010	0.79%
Znf	51.9	0.00133	mg/L	0.000007	0.00267	mg/L	0.000013	0.49%



Sequence No.: 20  
 Sample ID: 2805060290MS\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 45  
 Date Collected: 5/18/2008 18:33:34  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060290MS\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805060290MS\_2X

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sca	362221.2		88.3 %	0.15			0.17%
Yr	457925.5		93.4 %	0.30			0.32%
Ag†	62280.4		0.258 mg/L	0.0007	0.517 mg/L	0.0013	0.26%
B_f	84953.9		3.34 mg/L	0.000	6.68 mg/L	0.000	0.00%
Bat	21092.0		0.529 mg/L	0.0008	1.06 mg/L	0.002	0.15%
Bef	66129.8		0.0266 mg/L	0.00006	0.0532 mg/L	0.00012	0.22%
Cat	4936014.0		160 mg/L	0.9	319 mg/L	1.7	0.54%
Cd†	2275.3		0.109 mg/L	0.0003	0.218 mg/L	0.0006	0.27%
Cof	7546.1		0.525 mg/L	0.0007	1.05 mg/L	0.001	0.14%
Crt	35968.2		0.878 mg/L	0.0011	1.76 mg/L	0.002	0.13%
Cut	157731.5		0.529 mg/L	0.0023	1.06 mg/L	0.005	0.43%
Fef	31324.3		2.50 mg/L	0.030	5.00 mg/L	0.059	1.19%
K†	24527.8		18.6 mg/L	0.11	37.2 mg/L	0.22	0.59%
Mgf	1546634.5		71.6 mg/L	0.57	143 mg/L	1.1	0.79%
Mnt	132827.3		0.278 mg/L	0.0006	0.557 mg/L	0.0011	0.20%
Mof	5157.6		0.518 mg/L	0.0006	1.04 mg/L	0.001	0.12%
Nat	2443903.8		454 mg/L	6.5	908 mg/L	12.9	1.43%
Nif	4734.0		0.255 mg/L	0.0005	0.510 mg/L	0.0010	0.20%
Pbt	1884.3		0.498 mg/L	0.0007	0.996 mg/L	0.0015	0.15%
V†	84918.5		0.585 mg/L	0.0005	1.17 mg/L	0.001	0.08%
Znt	20687.0		0.542 mg/L	0.0006	1.08 mg/L	0.001	0.10%

Sequence No.: 21  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 5/18/2008 18:37:18  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	382437.1	93.2 %		0.45			0.48%
Yr	463579.6	94.5 %		0.34			0.36%
Ag†	245108.3	1.01 mg/L		0.007	1.01 mg/L	0.007	0.65%
	QC value within limits for Ag Recovery = 101.46%						
B_†	66857.0	2.59 mg/L		0.022	2.59 mg/L	0.022	0.84%
	QC value within limits for B_ Recovery = 103.48%						
Ba†	208000.0	5.21 mg/L		0.038	5.21 mg/L	0.038	0.72%
	QC value within limits for Ba Recovery = 104.25%						
Be†	5304739.1	2.12 mg/L		0.007	2.12 mg/L	0.007	0.33%
	QC value within limits for Be Recovery = 106.16%						
Ca†	1576756.7	51.0 mg/L		0.03	51.0 mg/L	0.03	0.05%
	QC value within limits for Ca Recovery = 101.99%						
Cd†	43814.5	2.08 mg/L		0.020	2.08 mg/L	0.020	0.98%
	QC value within limits for Cd Recovery = 104.01%						
Co†	76370.6	5.32 mg/L		0.067	5.32 mg/L	0.067	1.25%
	QC value within limits for Co Recovery = 106.31%						
Cr†	217284.0	5.30 mg/L		0.054	5.30 mg/L	0.054	1.02%
	QC value within limits for Cr Recovery = 106.08%						
Cu†	1529099.8	5.13 mg/L		0.008	5.13 mg/L	0.008	0.15%
	QC value within limits for Cu Recovery = 102.51%						
Fe†	63429.2	5.07 mg/L		0.006	5.07 mg/L	0.006	0.13%
	QC value within limits for Fe Recovery = 101.31%						
K†	68217.2	51.7 mg/L		0.36	51.7 mg/L	0.36	0.69%
	QC value within limits for K Recovery = 103.36%						
Mg†	1095696.1	50.8 mg/L		0.07	50.8 mg/L	0.07	0.14%
	QC value within limits for Mg Recovery = 101.52%						
Mn†	2476808.4	5.22 mg/L		0.004	5.22 mg/L	0.004	0.08%
	QC value within limits for Mn Recovery = 104.42%						
Mo†	51288.6	5.15 mg/L		0.051	5.15 mg/L	0.051	0.98%
	QC value within limits for Mo Recovery = 102.97%						
Na†	286186.7	53.2 mg/L		0.25	53.2 mg/L	0.25	0.46%
	QC value within limits for Na Recovery = 106.33%						
Ni†	98210.2	5.29 mg/L		0.043	5.29 mg/L	0.043	0.81%
	QC value within limits for Ni Recovery = 105.78%						
Pb†	19942.8	5.27 mg/L		0.051	5.27 mg/L	0.051	0.97%
	QC value within limits for Pb Recovery = 105.44%						
V†	754086.8	5.18 mg/L		0.002	5.18 mg/L	0.002	0.04%
	QC value within limits for V Recovery = 103.68%						
Zn†	200148.1	5.23 mg/L		0.040	5.23 mg/L	0.040	0.76%
	QC value within limits for Zn Recovery = 104.57%						

All analyte(s) passed QC.



Dilution:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	411014.6	100	%	0.2				0.23%
Yr	487399.3	99.4	%	0.12				0.12%
Ag†	13.4	0.00006	mg/L	0.000098	0.00006	mg/L	0.000098	176.02%
	QC value within limits for Ag Recovery = Not calculated							
Al†	-13.3	-0.00161	mg/L	0.000248	-0.00161	mg/L	0.000248	15.41%
	QC value within limits for Al Recovery = Not calculated							
As†	1.9	0.00121	mg/L	0.001655	0.00121	mg/L	0.001655	136.94%
	QC value within limits for As Recovery = Not calculated							
B_†	558.4	0.0220	mg/L	0.00005	0.0220	mg/L	0.00005	0.22%
	QC value greater than the upper limit for B_ Recovery = Not calculated							
Ba†	-1.5	-0.00004	mg/L	0.000045	-0.00004	mg/L	0.000045	121.59%
	QC value within limits for Ba Recovery = Not calculated							
Be†	108.1	0.00004	mg/L	0.000004	0.00004	mg/L	0.000004	9.82%
	QC value within limits for Be Recovery = Not calculated							
Ca†	-29.3	-0.00095	mg/L	0.000429	-0.00095	mg/L	0.000429	45.33%
	QC value within limits for Ca Recovery = Not calculated							
Cd†	-1.3	-0.00008	mg/L	0.000148	-0.00008	mg/L	0.000148	188.21%
	QC value within limits for Cd Recovery = Not calculated							
Co†	-2.3	-0.00016	mg/L	0.000138	-0.00016	mg/L	0.000138	86.55%
	QC value within limits for Co Recovery = Not calculated							
Cr†	-2.2	-0.00005	mg/L	0.000060	-0.00005	mg/L	0.000060	112.65%
	QC value within limits for Cr Recovery = Not calculated							
Cu†	-26.0	-0.00009	mg/L	0.000064	-0.00009	mg/L	0.000064	73.25%
	QC value within limits for Cu Recovery = Not calculated							
Fe†	8.2	0.00065	mg/L	0.000568	0.00065	mg/L	0.000568	86.72%
	QC value within limits for Fe Recovery = Not calculated							
K†	33.4	0.0253	mg/L	0.01273	0.0253	mg/L	0.01273	50.33%
	QC value within limits for K Recovery = Not calculated							
Mg†	10.1	0.00047	mg/L	0.000510	0.00047	mg/L	0.000510	108.89%
	QC value within limits for Mg Recovery = Not calculated							
Mn†	-137.3	-0.00029	mg/L	0.000001	-0.00029	mg/L	0.000001	0.31%
	QC value within limits for Mn Recovery = Not calculated							
Mo†	0.6	0.00006	mg/L	0.000397	0.00006	mg/L	0.000397	683.95%
	QC value within limits for Mo Recovery = Not calculated							
Na†	143.4	0.0266	mg/L	0.00862	0.0266	mg/L	0.00862	32.36%
	QC value within limits for Na Recovery = Not calculated							
Ni†	8.3	0.00045	mg/L	0.000152	0.00045	mg/L	0.000152	33.88%
	QC value within limits for Ni Recovery = Not calculated							
Pb†	-2.7	-0.00072	mg/L	0.000042	-0.00072	mg/L	0.000042	5.77%
	QC value within limits for Pb Recovery = Not calculated							
Sb†	4.0	0.00245	mg/L	0.000644	0.00245	mg/L	0.000644	26.26%
	QC value within limits for Sb Recovery = Not calculated							
Se†	3.4	0.00340	mg/L	0.001198	0.00340	mg/L	0.001198	35.22%
	QC value within limits for Se Recovery = Not calculated							
Tl†	4.8	0.00216	mg/L	0.000338	0.00216	mg/L	0.000338	15.61%
	QC value within limits for Tl Recovery = Not calculated							
V†	12.4	0.00008	mg/L	0.000051	0.00008	mg/L	0.000051	59.84%
	QC value within limits for V Recovery = Not calculated							
Zn†	-4.9	-0.00013	mg/L	0.000128	-0.00013	mg/L	0.000128	97.12%
	QC value within limits for Zn Recovery = Not calculated							
QC Failed. Retry.								

Sequence No.: 22  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 5/18/2008 18:53:30  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

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 Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	410050.5	99.9	%	0.29			0.29%
Yr	483679.0	98.6	%	0.48			0.49%
Ag†	116.1	0.00048	mg/L	0.000063	0.00048 mg/L	0.000063	13.09%
	QC value within limits for Ag Recovery = Not calculated						
Al†	-22.3	-0.00270	mg/L	0.001620	-0.00270 mg/L	0.001620	60.11%
	QC value within limits for Al Recovery = Not calculated						
As†	2.9	0.00182	mg/L	0.000014	0.00182 mg/L	0.000014	0.78%
	QC value within limits for As Recovery = Not calculated						
B_†	486.0	0.0191	mg/L	0.000020	0.0191 mg/L	0.000020	1.03%
	QC value within limits for B_ Recovery = Not calculated						
Ba†	0.9	0.00002	mg/L	0.000036	0.00002 mg/L	0.000036	151.25%
	QC value within limits for Ba Recovery = Not calculated						
Be†	97.0	0.00004	mg/L	0.000026	0.00004 mg/L	0.000026	66.41%
	QC value within limits for Be Recovery = Not calculated						
Ca†	-33.9	-0.00110	mg/L	0.000333	-0.00110 mg/L	0.000333	30.33%
	QC value within limits for Ca Recovery = Not calculated						
Cd†	-5.9	-0.00030	mg/L	0.000249	-0.00030 mg/L	0.000249	81.60%
	QC value within limits for Cd Recovery = Not calculated						
Co†	2.4	0.00017	mg/L	0.000028	0.00017 mg/L	0.000028	16.75%
	QC value within limits for Co Recovery = Not calculated						
Cr†	-2.1	-0.00005	mg/L	0.000140	-0.00005 mg/L	0.000140	266.96%
	QC value within limits for Cr Recovery = Not calculated						
Cu†	10.9	0.00004	mg/L	0.000466	0.00004 mg/L	0.000466	>999.9%
	QC value within limits for Cu Recovery = Not calculated						
Fe†	11.2	0.00090	mg/L	0.000226	0.00090 mg/L	0.000226	25.18%
	QC value within limits for Fe Recovery = Not calculated						
K†	42.5	0.0322	mg/L	0.00064	0.0322 mg/L	0.00064	1.99%
	QC value within limits for K Recovery = Not calculated						
Mg†	13.2	0.00061	mg/L	0.000333	0.00061 mg/L	0.000333	54.11%
	QC value within limits for Mg Recovery = Not calculated						
Mn†	-138.8	-0.00029	mg/L	0.000002	-0.00029 mg/L	0.000002	0.79%
	QC value within limits for Mn Recovery = Not calculated						
Mo†	0.4	0.00004	mg/L	0.000257	0.00004 mg/L	0.000257	652.86%
	QC value within limits for Mo Recovery = Not calculated						
Na†	122.2	0.0227	mg/L	0.00105	0.0227 mg/L	0.00105	4.63%
	QC value within limits for Na Recovery = Not calculated						
Ni†	8.8	0.00048	mg/L	0.000451	0.00048 mg/L	0.000451	94.88%
	QC value within limits for Ni Recovery = Not calculated						
Pb†	-3.6	-0.00096	mg/L	0.000091	-0.00096 mg/L	0.000091	9.45%
	QC value within limits for Pb Recovery = Not calculated						
Sb†	1.0	0.00064	mg/L	0.000817	0.00064 mg/L	0.000817	127.90%
	QC value within limits for Sb Recovery = Not calculated						
Se†	2.6	0.00259	mg/L	0.006101	0.00259 mg/L	0.006101	235.67%
	QC value within limits for Se Recovery = Not calculated						
Tl†	-0.1	-0.00004	mg/L	0.000078	-0.00004 mg/L	0.000078	209.08%
	QC value within limits for Tl Recovery = Not calculated						
V†	2.8	0.00002	mg/L	0.000114	0.00002 mg/L	0.000114	599.84%
	QC value within limits for V Recovery = Not calculated						
Zn†	-6.8	-0.00018	mg/L	0.000091	-0.00018 mg/L	0.000091	49.57%
	QC value within limits for Zn Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 23  
 Sample ID: 2805060290MSD\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 46  
 Date Collected: 5/18/2008 18:56:54  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: 2805060290MSD\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: 2805060290MSD\_2X

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sca	361853.3	88.2	%	0.37				0.42%
Yr	457668.5	93.3	%	1.12				1.20%
Agf	63534.8	0.263	mg/L	0.0000	0.527	mg/L	0.0000	0.01%
Alf	8778.5	1.04	mg/L	0.014	2.09	mg/L	0.029	1.39%
Asf	916.0	0.572	mg/L	0.0004	1.14	mg/L	0.001	0.07%
B_f	86224.0	3.39	mg/L	0.018	6.78	mg/L	0.036	0.52%
Baf	21553.4	0.540	mg/L	0.0033	1.08	mg/L	0.007	0.62%
Bef	67129.8	0.0270	mg/L	0.00000	0.0540	mg/L	0.00001	0.01%
Ca_f	5009931.7	162	mg/L	1.1	324	mg/L	2.2	0.69%
Cdf	2309.0	0.103	mg/L	0.0003	0.205	mg/L	0.0006	0.28%
Cof	7713.2	0.537	mg/L	0.0009	1.07	mg/L	0.002	0.17%
Crf	36927.1	0.901	mg/L	0.0015	1.80	mg/L	0.003	0.17%
Cuf	160878.4	0.539	mg/L	0.0015	1.08	mg/L	0.003	0.28%
Fef	31631.3	2.53	mg/L	0.010	5.05	mg/L	0.019	0.38%
Kf	24834.7	18.8	mg/L	0.10	37.6	mg/L	0.21	0.56%
Mgf	1570191.5	72.7	mg/L	0.38	145	mg/L	0.8	0.53%
Mnf	135482.4	0.284	mg/L	0.0008	0.568	mg/L	0.0016	0.29%
Mof	5251.8	0.527	mg/L	0.0023	1.05	mg/L	0.005	0.44%
Naf	2534733.2	471	mg/L	4.8	942	mg/L	9.7	1.03%
Nif	4811.4	0.259	mg/L	0.0006	0.518	mg/L	0.0012	0.22%
Pbf	1905.9	0.504	mg/L	0.0016	1.01	mg/L	0.003	0.31%
Sbf	443.8	0.276	mg/L	0.0058	0.553	mg/L	0.0116	2.09%
Sef	506.1	0.513	mg/L	0.0002	1.03	mg/L	0.000	0.04%
Tlf	1118.1	0.509	mg/L	0.0009	1.02	mg/L	0.002	0.18%
Vf	86653.3	0.597	mg/L	0.0019	1.19	mg/L	0.004	0.32%
Znf	21231.1	0.557	mg/L	0.0024	1.11	mg/L	0.005	0.43%

Sequence No.: 24  
 Sample ID: 2805060277\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 47  
 Date Collected: 5/18/2008 19:00:38  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: 2805060277\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: 2805060277\_2X

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sca	352399.2		85.9 %	1.07			1.25%
Yr	442575.9		90.3 %	0.11			0.12%
Agf	-22.9	-0.00008	mg/L	0.000139	-0.00017	mg/L	0.000278 166.18%
Alf	486.9	0.0582	mg/L	0.00230	0.116	mg/L	0.0046 3.94%
Ast	101.8	0.0635	mg/L	0.00195	0.127	mg/L	0.0039 3.06%
B_tf	125897.5	4.96	mg/L	0.007	9.92	mg/L	0.013 0.14%
Baf	276.4	0.00693	mg/L	0.000040	0.0139	mg/L	0.00008 0.57%
Bef	-1618.3	-0.00046	mg/L	0.000004	-0.00093	mg/L	0.000008 0.26%
Caf	8838630.9	286	mg/L	0.9	572	mg/L	1.9 0.33%
Cdf	6.3	-0.00058	mg/L	0.000227	-0.00117	mg/L	0.000455 38.98%
Cof	-1.5	-0.00011	mg/L	0.000098	-0.00021	mg/L	0.000196 93.15%
Crt	46177.2	1.13	mg/L	0.002	2.25	mg/L	0.004 0.19%
Cuf	826.3	0.00278	mg/L	0.000091	0.00557	mg/L	0.000182 3.26%
Fef	365.0	0.0291	mg/L	0.00043	0.0583	mg/L	0.00086 1.48%
Kf	10509.4	7.96	mg/L	0.050	15.9	mg/L	0.10 0.63%
Mgf	2550633.5	118	mg/L	0.5	236	mg/L	0.9 0.40%
Mnf	17593.7	0.0344	mg/L	0.00006	0.0689	mg/L	0.00012 0.17%
Mof	180.1	0.0181	mg/L	0.00030	0.0362	mg/L	0.00061 1.68%
Naf	2731190.8	507	mg/L	0.6	1010	mg/L	1.1 0.11%
Nif	20.2	0.00109	mg/L	0.000384	0.00218	mg/L	0.000769 35.25%
Pbf	-36.3	-0.00959	mg/L	0.001140	-0.0192	mg/L	0.00228 11.89%
Sbf	39.3	0.0212	mg/L	0.00670	0.0425	mg/L	0.01340 31.56%
Sef	-32.5	-0.0324	mg/L	0.00988	-0.0648	mg/L	0.01976 30.50%
Tlf	36.8	0.0171	mg/L	0.00166	0.0341	mg/L	0.00332 9.73%
Vf	7048.1	0.0537	mg/L	0.00090	0.107	mg/L	0.0018 1.68%
Znf	92.9	0.00243	mg/L	0.000018	0.00485	mg/L	0.000036 0.74%

Sequence No.: 25  
 Sample ID: 2805060279\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 48  
 Date Collected: 5/18/2008 19:05:02  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060279\_2X

Analyte Back Pressure Flow  
 All 215.0 kPa 0.65 L/min

## Mean Data: 2805060279\_2X

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	347692.6	84.7	%	0.38			0.45%
Yr	445327.3	90.8	%	0.98			1.07%
Agf	-32.2	-0.00012	mg/L	0.000185	-0.00025	0.000370	150.17%
Alf	565.7	0.0679	mg/L	0.00105	0.136	0.0021	1.54%
Ast	133.0	0.0830	mg/L	0.00260	0.166	0.0052	3.14%
E_r	76770.9	3.02	mg/L	0.000	6.05	0.000	0.01%
Baf	313.2	0.00785	mg/L	0.000025	0.0157	0.00005	0.31%
Bef	-1210.4	-0.00047	mg/L	0.000002	-0.00095	0.000004	0.37%
Caf	8316561.7	269	mg/L	4.3	538	8.6	1.60%
Cdf	15.1	-0.00044	mg/L	0.000085	-0.00088	0.000169	19.35%
Cof	-3.0	-0.00021	mg/L	0.000055	-0.00041	0.000109	26.54%
Crt	3035.7	0.0741	mg/L	0.00054	0.148	0.0011	0.73%
Cut	834.6	0.00281	mg/L	0.000318	0.00562	0.000635	11.30%
Fef	333.0	0.0266	mg/L	0.00001	0.0532	0.00003	0.05%
Kf	9420.3	7.14	mg/L	0.135	14.3	0.27	1.89%
Mgf	2814765.3	130	mg/L	2.1	261	4.1	1.59%
Mnf	3469.3	0.00439	mg/L	0.000050	0.00877	0.000099	1.13%
Mof	133.4	0.0134	mg/L	0.00022	0.0268	0.00044	1.63%
Naf	3547575.3	659	mg/L	6.0	1320	11.9	0.91%
Nif	-6.4	-0.00034	mg/L	0.000181	-0.00069	0.000362	52.43%
Pbf	-40.7	-0.0108	mg/L	0.00003	-0.0215	0.00006	0.30%
Sbf	14.3	0.00897	mg/L	0.006411	0.0179	0.01282	71.48%
Sef	-26.9	-0.0269	mg/L	0.00556	-0.0537	0.01113	20.72%
Tlf	27.8	0.0128	mg/L	0.00116	0.0256	0.00232	9.06%
Vf	6255.1	0.0431	mg/L	0.00038	0.0863	0.00077	0.89%
Znf	52.4	0.00137	mg/L	0.000022	0.00273	0.000044	1.61%



Sequence No.: 26  
 Sample ID: 2805060280\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 49  
 Date Collected: 5/18/2008 19:09:26  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: 2805060280\_2X

Analyte Back Pressure Flow  
 All 213.0 kPa 0.65 L/min

Mean Data: 2805060280\_2X

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	345790.7	84.3 %	0.06			0.07%
Yr	435679.8	88.9 %	0.16			0.18%
Ag†	-139.3	-0.00056 mg/L	0.000012	-0.00113 mg/L	0.000023	2.07%
Al†	616.7	0.0740 mg/L	0.00031	0.148 mg/L	0.0006	0.42%
As†	170.2	0.106 mg/L	0.0028	0.212 mg/L	0.0055	2.59%
B_†	129140.0	5.08 mg/L	0.006	10.2 mg/L	0.01	0.11%
Ba†	297.8	0.00746 mg/L	0.000034	0.0149 mg/L	0.00007	0.46%
Be†	-1364.3	-0.00051 mg/L	0.000007	-0.00102 mg/L	0.000014	1.39%
Ca†	9140878.9	296 mg/L	2.3	591 mg/L	4.7	0.79%
Cd†	23.1	-0.00038 mg/L	0.000205	-0.00077 mg/L	0.000409	53.48%
Co†	-5.2	-0.00036 mg/L	0.000449	-0.00072 mg/L	0.000899	124.54%
Cr†	8884.3	0.217 mg/L	0.0002	0.434 mg/L	0.0005	0.11%
Cu†	742.9	0.00251 mg/L	0.000237	0.00501 mg/L	0.000473	9.44%
Fe†	421.7	0.0337 mg/L	0.00040	0.0674 mg/L	0.00080	1.19%
K†	10228.9	7.75 mg/L	0.054	15.5 mg/L	0.11	0.70%
Mg†	2681647.2	124 mg/L	0.8	248 mg/L	1.7	0.67%
Mn†	2676.7	0.00285 mg/L	0.000017	0.00571 mg/L	0.000034	0.59%
Mo†	159.2	0.0160 mg/L	0.00099	0.0320 mg/L	0.00198	6.18%
Na†	3843929.8	714 mg/L	5.8	1430 mg/L	11.6	0.81%
Ni†	12.3	0.00066 mg/L	0.000736	0.00132 mg/L	0.001471	111.16%
Pb†	-39.0	-0.0103 mg/L	0.00155	-0.0206 mg/L	0.00311	15.08%
Sb†	9.2	0.00544 mg/L	0.000440	0.0109 mg/L	0.00088	8.08%
Se†	-38.2	-0.0381 mg/L	0.00586	-0.0762 mg/L	0.01171	15.37%
Tl†	25.5	0.0117 mg/L	0.00026	0.0235 mg/L	0.00053	2.25%
V†	7919.0	0.0552 mg/L	0.00013	0.110 mg/L	0.0003	0.23%
Zn†	19.3	0.00049 mg/L	0.000067	0.00098 mg/L	0.000135	13.79%

Sequence No.: 27  
 Sample ID: 2805060281\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 50  
 Date Collected: 5/18/2008 19:13:52  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: 2805060281\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: 2805060281\_2X

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	347757.9	84.8	%	0.65				0.77%
Yr	435431.9	88.8	%	0.33				0.37%
Ag†	-124.2	-0.00051	mg/L	0.000095	-0.00101	mg/L	0.000190	18.82%
Al†	279.1	0.0332	mg/L	0.00243	0.0665	mg/L	0.00485	7.30%
As†	168.1	0.105	mg/L	0.0004	0.210	mg/L	0.0007	0.35%
B_†	94175.2	3.71	mg/L	0.025	7.42	mg/L	0.050	0.68%
Ba†	223.8	0.00561	mg/L	0.000058	0.0112	mg/L	0.00012	1.04%
Be†	-1272.3	-0.00049	mg/L	0.000024	-0.00097	mg/L	0.000047	4.85%
Ca†	9774881.6	316	mg/L	5.5	632	mg/L	11.1	1.75%
Cd†	21.9	-0.00042	mg/L	0.000056	-0.00084	mg/L	0.000112	13.36%
Co†	-8.2	-0.00057	mg/L	0.000195	-0.00115	mg/L	0.000390	33.97%
Cr†	6040.1	0.147	mg/L	0.0010	0.295	mg/L	0.0020	0.67%
Cu†	711.7	0.00240	mg/L	0.000255	0.00480	mg/L	0.000509	10.60%
Fe†	257.1	0.0205	mg/L	0.00055	0.0411	mg/L	0.00111	2.69%
K†	9709.4	7.36	mg/L	0.011	14.7	mg/L	0.02	0.15%
Mg†	2528186.9	117	mg/L	1.8	234	mg/L	3.7	1.57%
Mn†	1647.2	0.00084	mg/L	0.000027	0.00168	mg/L	0.000053	3.18%
Mo†	144.5	0.0145	mg/L	0.00028	0.0290	mg/L	0.00056	1.92%
Na†	3415359.3	634	mg/L	6.3	1270	mg/L	12.7	1.00%
Ni†	7.1	0.00038	mg/L	0.000492	0.00076	mg/L	0.000985	128.99%
Pb†	-39.1	-0.0103	mg/L	0.00222	-0.0207	mg/L	0.00443	21.45%
Sb†	17.3	0.0107	mg/L	0.00265	0.0213	mg/L	0.00529	24.79%
Se†	-29.2	-0.0292	mg/L	0.00604	-0.0583	mg/L	0.01207	20.70%
Tl†	28.8	0.0132	mg/L	0.00146	0.0265	mg/L	0.00292	11.02%
V†	8025.8	0.0556	mg/L	0.00016	0.111	mg/L	0.0003	0.29%
Zn†	30.9	0.00080	mg/L	0.000220	0.00160	mg/L	0.000440	27.54%

Sequence No.: 28  
 Sample ID: 2805060282\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 51  
 Date Collected: 5/18/2008 19:18:13  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060282\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805060282\_2X

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sca	346146.6	84.4	%	0.13				0.15%
Yr	433597.3	88.4	%	0.60				0.68%
Agf	-79.3	-0.00032	mg/L	0.000395	-0.00065	mg/L	0.000789	121.62%
Alf	137.5	0.0161	mg/L	0.00216	0.0322	mg/L	0.00432	13.40%
Asf	117.3	0.0732	mg/L	0.00368	0.146	mg/L	0.0074	5.03%
B_tf	75383.7	2.97	mg/L	0.000	5.94	mg/L	0.001	0.01%
Baf	334.9	0.00839	mg/L	0.000154	0.0168	mg/L	0.00031	1.83%
Bef	-1235.1	-0.00046	mg/L	0.000035	-0.00092	mg/L	0.000070	7.55%
Caf	9113054.6	295	mg/L	2.1	589	mg/L	4.2	0.72%
Cdf	9.3	-0.00058	mg/L	0.000238	-0.00115	mg/L	0.000475	41.21%
Cof	-13.3	-0.00092	mg/L	0.000015	-0.00185	mg/L	0.000031	1.67%
Crt	8188.5	0.200	mg/L	0.0013	0.400	mg/L	0.0025	0.64%
Cuf	702.3	0.00236	mg/L	0.000121	0.00472	mg/L	0.000242	5.12%
Fef	114.1	0.00911	mg/L	0.000112	0.0182	mg/L	0.00022	1.23%
Kf	11174.1	8.47	mg/L	0.096	16.9	mg/L	0.19	1.14%
Mgf	2606830.3	121	mg/L	0.9	241	mg/L	1.8	0.76%
Mnf	481.7	-0.00170	mg/L	0.000022	-0.00339	mg/L	0.000045	1.32%
Mof	142.0	0.0143	mg/L	0.00013	0.0285	mg/L	0.00025	0.89%
Naf	3206356.6	596	mg/L	2.2	1190	mg/L	4.4	0.37%
Nif	-9.3	-0.00050	mg/L	0.000428	-0.00101	mg/L	0.000855	85.03%
Pbf	-44.7	-0.0118	mg/L	0.00114	-0.0236	mg/L	0.00228	9.66%
Sbf	12.7	0.00748	mg/L	0.005028	0.0150	mg/L	0.01006	67.22%
Sef	-35.6	-0.0356	mg/L	0.01702	-0.0712	mg/L	0.03404	47.83%
Tlf	36.7	0.0167	mg/L	0.00105	0.0334	mg/L	0.00210	6.29%
Vf	4763.7	0.0335	mg/L	0.00007	0.0671	mg/L	0.00014	0.21%
Znf	32.3	0.00084	mg/L	0.000080	0.00167	mg/L	0.000159	9.50%

Sequence No.: 29  
 Sample ID: 2805060291\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 52  
 Date Collected: 5/18/2008 19:22:35  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060291\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805060291\_2X

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sca	340673.3	83.0	%	0.67				0.80%
Yr	427062.8	87.1	%	0.34				0.40%
Agf	-73.0	-0.00030	mg/L	0.000138	-0.00060	mg/L	0.000275	45.68%
Alf	9.4	0.00062	mg/L	0.000829	0.00124	mg/L	0.001658	134.13%
Ast	154.7	0.0965	mg/L	0.00283	0.193	mg/L	0.0057	2.93%
B_r	133728.6	5.27	mg/L	0.001	10.5	mg/L	0.00	0.03%
Bat	265.3	0.00665	mg/L	0.000033	0.0133	mg/L	0.00007	0.49%
Bef	-1461.5	-0.00052	mg/L	0.000009	-0.00103	mg/L	0.000018	1.71%
Caf	10009488.1	324	mg/L	3.0	647	mg/L	5.9	0.92%
Cdf	18.3	-0.00047	mg/L	0.000237	-0.00095	mg/L	0.000473	49.89%
Cof	-6.1	-0.00042	mg/L	0.000114	-0.00085	mg/L	0.000228	26.81%
Crt	17660.4	0.431	mg/L	0.0001	0.862	mg/L	0.0001	0.01%
Cuf	702.3	0.00238	mg/L	0.000096	0.00475	mg/L	0.000193	4.06%
Fef	20.0	0.00160	mg/L	0.000298	0.00320	mg/L	0.000596	18.64%
Kf	10488.9	7.95	mg/L	0.028	15.9	mg/L	0.06	0.35%
Mgf	2699666.8	125	mg/L	1.1	250	mg/L	2.2	0.87%
Mnt	2325.6	0.00209	mg/L	0.000043	0.00419	mg/L	0.000086	2.06%
Mot	143.0	0.0144	mg/L	0.00063	0.0287	mg/L	0.00127	4.42%
Naf	3828680.7	711	mg/L	7.5	1420	mg/L	15.0	1.05%
Nif	7.2	0.00039	mg/L	0.000075	0.00077	mg/L	0.000150	19.49%
Pbf	-42.3	-0.0112	mg/L	0.00015	-0.0224	mg/L	0.00030	1.33%
Sbf	18.0	0.0104	mg/L	0.00397	0.0208	mg/L	0.00793	38.18%
Sef	-36.4	-0.0364	mg/L	0.01555	-0.0727	mg/L	0.03110	42.76%
Tlf	35.5	0.0164	mg/L	0.00067	0.0328	mg/L	0.00134	4.09%
Vf	11189.3	0.0786	mg/L	0.00059	0.157	mg/L	0.0012	0.74%
Znf	53.5	0.00139	mg/L	0.000057	0.00279	mg/L	0.000114	4.10%

Sequence No.: 30  
 Sample ID: 2805060293\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 53  
 Date Collected: 5/18/2008 19:26:57  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060293\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805060293\_2X

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	409413.7	99.8	%	0.60			0.60%
Yr	475216.5	96.9	%	1.22			1.25%
Ag†	46.6	0.00019	mg/L	0.000006	0.00039 mg/L	0.000011	2.92%
Al†	53.1	0.00642	mg/L	0.002305	0.0128 mg/L	0.00461	35.92%
As†	1.2	0.00074	mg/L	0.000517	0.00149 mg/L	0.001033	69.44%
B_†	2085.1	0.0821	mg/L	0.00364	0.164 mg/L	0.0073	4.44%
Ba†	-0.8	-0.00002	mg/L	0.000052	-0.00004 mg/L	0.000104	254.54%
Be†	110.4	0.00004	mg/L	0.000016	0.00009 mg/L	0.000032	36.22%
Ca†	991.6	0.0321	mg/L	0.00070	0.0641 mg/L	0.00140	2.19%
Cd†	-2.6	-0.00013	mg/L	0.000183	-0.00026 mg/L	0.000366	138.57%
Co†	-1.8	-0.00012	mg/L	0.000246	-0.00025 mg/L	0.000493	197.56%
Cr†	6.9	0.00017	mg/L	0.000083	0.00034 mg/L	0.000165	49.07%
Cu†	94.6	0.00032	mg/L	0.000096	0.00063 mg/L	0.000192	30.22%
Fe†	24.4	0.00195	mg/L	0.000120	0.00390 mg/L	0.000240	6.15%
K†	77.1	0.0584	mg/L	0.00965	0.117 mg/L	0.0193	16.52%
Mg†	129.0	0.00598	mg/L	0.000741	0.0120 mg/L	0.00148	12.39%
Mn†	-30.0	-0.00006	mg/L	0.000001	-0.00013 mg/L	0.000002	1.46%
Mo†	0.4	0.00004	mg/L	0.000266	0.00009 mg/L	0.000531	596.65%
Na†	2023.0	0.376	mg/L	0.0114	0.752 mg/L	0.0229	3.04%
Ni†	16.2	0.00087	mg/L	0.000097	0.00174 mg/L	0.000194	11.14%
Pb†	-8.2	-0.00218	mg/L	0.000447	-0.00435 mg/L	0.000895	20.56%
Sb†	5.1	0.00314	mg/L	0.000462	0.00628 mg/L	0.000923	14.69%
Se†	-0.1	-0.00009	mg/L	0.002278	-0.00018 mg/L	0.004555	>999.9%
Tl†	6.4	0.00291	mg/L	0.002510	0.00581 mg/L	0.005019	86.33%
V†	-4.6	-0.00003	mg/L	0.000140	-0.00006 mg/L	0.000280	457.96%
Zn†	142.1	0.00374	mg/L	0.000099	0.00748 mg/L	0.000197	2.64%

Sequence No.: 31  
 Sample ID: 2805060294\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 54  
 Date Collected: 5/18/2008 19:30:33  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: 2805060294\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: 2805060294\_2X

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sca	343218.6	83.6	%	0.10				0.11%
Yr	422898.6	86.2	%	0.81				0.94%
Agf	-101.4	-0.00042	mg/L	0.000085	-0.00084	mg/L	0.000170	20.40%
Alf	-1.1	-0.00068	mg/L	0.001644	-0.00135	mg/L	0.003288	243.08%
Ast	144.2	0.0900	mg/L	0.00343	0.180	mg/L	0.0069	3.81%
B_f	131529.9	5.18	mg/L	0.002	10.4	mg/L	0.00	0.05%
Baf	261.4	0.00655	mg/L	0.000007	0.0131	mg/L	0.00001	0.10%
Bef	-1389.9	-0.00049	mg/L	0.000009	-0.00098	mg/L	0.000018	1.88%
CaI	9887037.1	320	mg/L	2.0	640	mg/L	4.1	0.64%
Cdf	12.9	-0.00064	mg/L	0.000217	-0.00128	mg/L	0.000435	34.04%
Cof	0.4	0.00003	mg/L	0.000342	0.00005	mg/L	0.000685	>999.9%
Crt	17271.0	0.422	mg/L	0.0007	0.843	mg/L	0.0014	0.16%
Cuf	588.0	0.00199	mg/L	0.000234	0.00399	mg/L	0.000468	11.73%
Fef	40.5	0.00323	mg/L	0.001520	0.00647	mg/L	0.003040	47.01%
Kf	10468.0	7.93	mg/L	0.078	15.9	mg/L	0.16	0.98%
Mgf	2661593.6	123	mg/L	0.7	247	mg/L	1.3	0.54%
Mnf	2244.0	0.00196	mg/L	0.000049	0.00392	mg/L	0.000098	2.51%
Mof	147.3	0.0148	mg/L	0.00019	0.0296	mg/L	0.00037	1.26%
Naf	3844433.3	714	mg/L	3.1	1430	mg/L	6.2	0.43%
Nif	14.8	0.00080	mg/L	0.000498	0.00159	mg/L	0.000995	62.56%
Pbf	-39.5	-0.0104	mg/L	0.00004	-0.0209	mg/L	0.00009	0.41%
Sbf	22.3	0.0131	mg/L	0.00176	0.0261	mg/L	0.00352	13.45%
Sef	-37.4	-0.0374	mg/L	0.00324	-0.0748	mg/L	0.00648	8.66%
Tlf	36.1	0.0167	mg/L	0.00014	0.0333	mg/L	0.00028	0.83%
Vf	11047.3	0.0776	mg/L	0.00002	0.155	mg/L	0.0000	0.02%
Znf	31.3	0.00081	mg/L	0.000191	0.00161	mg/L	0.000383	23.76%

Sequence No.: 32  
 Sample ID: 2805060303\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 55  
 Date Collected: 5/18/2008 19:34:55  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060303\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805060303\_2X

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	363965.1	88.7 %	0.74			0.83%
Yr	442765.5	90.3 %	0.39			0.43%
Ag†	36.2	0.00015 mg/L	0.000306	0.00030 mg/L	0.000613	203.34%
Al†	49.7	0.00568 mg/L	0.001788	0.0114 mg/L	0.00358	31.47%
As†	50.8	0.0317 mg/L	0.00703	0.0634 mg/L	0.01406	22.19%
B_†	80368.5	3.16 mg/L	0.011	6.33 mg/L	0.022	0.35%
Ba†	576.0	0.0144 mg/L	0.00024	0.0289 mg/L	0.00047	1.63%
Be†	-908.7	-0.00031 mg/L	0.000006	-0.00061 mg/L	0.000012	1.94%
Ca†	4091621.4	132 mg/L	0.5	265 mg/L	0.9	0.34%
Cd†	2.1	-0.00034 mg/L	0.000080	-0.00068 mg/L	0.000160	23.69%
Co†	17.9	0.00124 mg/L	0.000314	0.00249 mg/L	0.000628	25.24%
Cr†	14824.0	0.362 mg/L	0.0000	0.724 mg/L	0.0000	0.00%
Cu†	665.2	0.00225 mg/L	0.000294	0.00450 mg/L	0.000588	13.07%
Fe†	29.1	0.00233 mg/L	0.000624	0.00465 mg/L	0.001248	26.82%
K†	10656.4	8.07 mg/L	0.056	16.1 mg/L	0.11	0.70%
Mg†	1295418.2	60.0 mg/L	0.17	120 mg/L	0.3	0.28%
Mn†	6690.5	0.0128 mg/L	0.00013	0.0255 mg/L	0.00027	1.06%
Mo†	91.1	0.00914 mg/L	0.000681	0.0183 mg/L	0.00136	7.45%
Na†	2369103.3	440 mg/L	0.7	880 mg/L	1.3	0.15%
Ni†	25.2	0.00136 mg/L	0.000384	0.00271 mg/L	0.000768	28.31%
Pb†	-30.4	-0.00803 mg/L	0.000842	-0.0161 mg/L	0.00168	10.49%
Sb†	18.2	0.0106 mg/L	0.00172	0.0212 mg/L	0.00344	16.24%
Se†	-22.2	-0.0222 mg/L	0.00264	-0.0445 mg/L	0.00527	11.85%
Tl†	20.3	0.00949 mg/L	0.004213	0.0190 mg/L	0.00843	44.38%
V†	9129.7	0.0642 mg/L	0.00059	0.128 mg/L	0.0012	0.92%
Zn†	39.9	0.00101 mg/L	0.000256	0.00202 mg/L	0.000512	25.30%

Sequence No.: 33  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 5/18/2008 19:39:12  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	380238.0	92.7 %	0.03			
Yr	449615.1	91.7 %	0.07			0.03%
Ag†	243270.7	1.01 mg/L	0.002	1.01 mg/L	0.002	0.08%
	QC value within limits for Ag	Recovery = 100.70%				0.24%
Al†	44989.3	5.26 mg/L	0.005	5.26 mg/L	0.005	0.10%
	QC value within limits for Al	Recovery = 105.11%				
As†	7679.1	4.79 mg/L	0.028	4.79 mg/L	0.028	0.58%
	QC value within limits for As	Recovery = 95.82%				
B_†	67052.8	2.59 mg/L	0.014	2.59 mg/L	0.014	0.53%
	QC value within limits for B_	Recovery = 103.79%				
Ba†	205531.5	5.15 mg/L	0.012	5.15 mg/L	0.012	0.23%
	QC value within limits for Ba	Recovery = 103.02%				
Be†	5308276.4	2.12 mg/L	0.002	2.12 mg/L	0.002	0.09%
	QC value within limits for Be	Recovery = 106.23%				
Ca†	1545238.6	50.0 mg/L	0.09	50.0 mg/L	0.09	0.18%
	QC value within limits for Ca	Recovery = 99.95%				
Cd†	43627.2	2.01 mg/L	0.003	2.01 mg/L	0.003	0.17%
	QC value within limits for Cd	Recovery = 100.26%				
Co†	76747.9	5.34 mg/L	0.003	5.34 mg/L	0.003	0.06%
	QC value within limits for Co	Recovery = 106.84%				
Cr†	217302.4	5.30 mg/L	0.010	5.30 mg/L	0.010	0.19%
	QC value within limits for Cr	Recovery = 106.09%				
Cu†	1521327.5	5.10 mg/L	0.005	5.10 mg/L	0.005	0.09%
	QC value within limits for Cu	Recovery = 101.99%				
Fe†	60437.4	4.83 mg/L	0.019	4.83 mg/L	0.019	0.40%
	QC value within limits for Fe	Recovery = 96.53%				
K†	70367.4	53.3 mg/L	0.14	53.3 mg/L	0.14	0.27%
	QC value within limits for K	Recovery = 106.62%				
Mg†	1066119.6	49.4 mg/L	0.10	49.4 mg/L	0.10	0.21%
	QC value within limits for Mg	Recovery = 98.78%				
Mn†	2485962.2	5.24 mg/L	0.006	5.24 mg/L	0.006	0.12%
	QC value within limits for Mn	Recovery = 104.81%				
Mo†	51014.9	5.12 mg/L	0.001	5.12 mg/L	0.001	0.03%
	QC value within limits for Mo	Recovery = 102.42%				
Na†	294738.1	54.8 mg/L	0.25	54.8 mg/L	0.25	0.46%
	QC value within limits for Na	Recovery = 109.50%				
Ni†	97494.3	5.25 mg/L	0.006	5.25 mg/L	0.006	0.11%
	QC value within limits for Ni	Recovery = 105.01%				
Pb†	19763.8	5.22 mg/L	0.021	5.22 mg/L	0.021	0.41%
	QC value within limits for Pb	Recovery = 104.49%				
Sb†	7842.2	4.88 mg/L	0.031	4.88 mg/L	0.031	0.63%
	QC value within limits for Sb	Recovery = 97.62%				
Se†	4933.9	4.95 mg/L	0.025	4.95 mg/L	0.025	0.50%
	QC value within limits for Se	Recovery = 98.97%				
Tl†	11558.9	5.27 mg/L	0.024	5.27 mg/L	0.024	0.46%
	QC value within limits for Tl	Recovery = 105.43%				
V†	754112.6	5.18 mg/L	0.001	5.18 mg/L	0.001	0.01%
	QC value within limits for V	Recovery = 103.68%				
Zn†	199499.2	5.21 mg/L	0.004	5.21 mg/L	0.004	0.08%
	QC value within limits for Zn	Recovery = 104.23%				
All analyte(s) passed QC.						



Sequence No.: 34  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 5/18/2008 19:42:58  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	405808.5	98.9 %		0.04			
Yr	466551.7	95.1 %		1.07			0.05%
Ag†	69.0	0.00029 mg/L		0.000236	0.00029 mg/L	0.000236	1.13%
	QC value within limits for Ag Recovery = Not calculated						
Al†	-15.3	-0.00190 mg/L		0.000282	-0.00190 mg/L	0.000282	82.83%
	QC value within limits for Al Recovery = Not calculated						
As†	7.7	0.00483 mg/L		0.002389	0.00483 mg/L	0.002389	14.87%
	QC value within limits for As Recovery = Not calculated						
B_†	1999.1	0.0787 mg/L		0.00236	0.0787 mg/L	0.00236	49.48%
	QC value greater than the upper limit for B Recovery = Not calculated						
Ba†	3.0	0.00008 mg/L		0.000012	0.00008 mg/L	0.000012	2.99%
	QC value within limits for Ba Recovery = Not calculated						
Be†	215.3	0.00009 mg/L		0.000019	0.00009 mg/L	0.000019	16.42%
	QC value within limits for Be Recovery = Not calculated						
Ca†	9.9	0.00032 mg/L		0.002382	0.00032 mg/L	0.002382	21.74%
	QC value within limits for Ca Recovery = Not calculated						
Cd†	0.3	-0.00005 mg/L		0.000117	-0.00005 mg/L	0.000117	741.37%
	QC value within limits for Cd Recovery = Not calculated						
Co†	-0.5	-0.00003 mg/L		0.000006	-0.00003 mg/L	0.000006	223.75%
	QC value within limits for Co Recovery = Not calculated						
Cr†	7.1	0.00017 mg/L		0.000064	0.00017 mg/L	0.000064	18.50%
	QC value within limits for Cr Recovery = Not calculated						
Cu†	21.0	0.00007 mg/L		0.000151	0.00007 mg/L	0.000151	36.62%
	QC value within limits for Cu Recovery = Not calculated						
Fe†	17.1	0.00137 mg/L		0.000012	0.00137 mg/L	0.000012	215.21%
	QC value within limits for Fe Recovery = Not calculated						
K†	88.2	0.0668 mg/L		0.00262	0.0668 mg/L	0.00262	0.85%
	QC value within limits for K Recovery = Not calculated						
Mg†	74.9	0.00347 mg/L		0.000864	0.00347 mg/L	0.000864	3.92%
	QC value within limits for Mg Recovery = Not calculated						
Mn†	-27.3	-0.00006 mg/L		0.000008	-0.00006 mg/L	0.000008	24.90%
	QC value within limits for Mn Recovery = Not calculated						
Mo†	12.9	0.00129 mg/L		0.000149	0.00129 mg/L	0.000149	13.32%
	QC value within limits for Mo Recovery = Not calculated						
Na†	925.3	0.172 mg/L		0.0217	0.172 mg/L	0.0217	11.54%
	QC value within limits for Na Recovery = Not calculated						
Ni†	12.3	0.00066 mg/L		0.000070	0.00066 mg/L	0.000070	12.64%
	QC value within limits for Ni Recovery = Not calculated						
Pb†	-1.0	-0.00025 mg/L		0.000089	-0.00025 mg/L	0.000089	10.54%
	QC value within limits for Pb Recovery = Not calculated						
Sb†	6.2	0.00386 mg/L		0.000889	0.00386 mg/L	0.000889	35.40%
	QC value within limits for Sb Recovery = Not calculated						
Se†	0.4	0.00044 mg/L		0.000594	0.00044 mg/L	0.000594	23.04%
	QC value within limits for Se Recovery = Not calculated						
Tl†	5.8	0.00264 mg/L		0.000848	0.00264 mg/L	0.000848	135.31%
	QC value within limits for Tl Recovery = Not calculated						
V†	15.4	0.00011 mg/L		0.000102	0.00011 mg/L	0.000102	32.08%
	QC value within limits for V Recovery = Not calculated						
Zn†	0.8	0.00002 mg/L		0.000267	0.00002 mg/L	0.000267	95.90%
	QC value within limits for Zn Recovery = Not calculated						
QC Failed. Retry.							

Sequence No.: 35  
 Sample ID: CCB

Autosampler Location: 0  
 Date Collected: 5/18/2008 19:45:31

Analyst:  
Initial Sample Wt:  
Dilution:

Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow  
All 214.0 kPa 0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	400020.8	97.5 %	0.50			0.51%
Yr	466013.0	95.0 %	0.02			0.03%
Ag†	70.2	0.00029 mg/L	0.000133	0.00029 mg/L	0.000133	45.77%
	QC value within limits for Ag Recovery = Not calculated					
Al†	35.4	0.00427 mg/L	0.004053	0.00427 mg/L	0.004053	94.97%
	QC value within limits for Al Recovery = Not calculated					
As†	4.1	0.00253 mg/L	0.001735	0.00253 mg/L	0.001735	68.60%
	QC value within limits for As Recovery = Not calculated					
B_†	1667.7	0.0657 mg/L	0.00167	0.0657 mg/L	0.00167	2.54%
	QC value greater than the upper limit for B Recovery = Not calculated					
Ba†	1.1	0.00003 mg/L	0.000082	0.00003 mg/L	0.000082	309.17%
	QC value within limits for Ba Recovery = Not calculated					
Be†	100.9	0.00004 mg/L	0.000026	0.00004 mg/L	0.000026	65.56%
	QC value within limits for Be Recovery = Not calculated					
Ca†	-2.3	-0.00007 mg/L	0.000815	-0.00007 mg/L	0.000815	>999.9%
	QC value within limits for Ca Recovery = Not calculated					
Cd†	1.1	0.00002 mg/L	0.000188	0.00002 mg/L	0.000188	>999.9%
	QC value within limits for Cd Recovery = Not calculated					
Co†	2.3	0.00016 mg/L	0.000079	0.00016 mg/L	0.000079	50.51%
	QC value within limits for Co Recovery = Not calculated					
Cr†	-4.5	-0.00011 mg/L	0.000039	-0.00011 mg/L	0.000039	35.31%
	QC value within limits for Cr Recovery = Not calculated					
Cu†	4.3	0.00001 mg/L	0.000182	0.00001 mg/L	0.000182	>999.9%
	QC value within limits for Cu Recovery = Not calculated					
Fe†	14.6	0.00117 mg/L	0.000409	0.00117 mg/L	0.000409	35.12%
	QC value within limits for Fe Recovery = Not calculated					
K†	67.7	0.0513 mg/L	0.00723	0.0513 mg/L	0.00723	14.10%
	QC value within limits for K Recovery = Not calculated					
Mg†	59.1	0.00274 mg/L	0.000301	0.00274 mg/L	0.000301	10.99%
	QC value within limits for Mg Recovery = Not calculated					
Mn†	-44.8	-0.00009 mg/L	0.000001	-0.00009 mg/L	0.000001	1.32%
	QC value within limits for Mn Recovery = Not calculated					
Mo†	4.2	0.00042 mg/L	0.000186	0.00042 mg/L	0.000186	44.25%
	QC value within limits for Mo Recovery = Not calculated					
Na†	904.7	0.168 mg/L	0.0117	0.168 mg/L	0.0117	6.98%
	QC value within limits for Na Recovery = Not calculated					
Ni†	12.2	0.00066 mg/L	0.000204	0.00066 mg/L	0.000204	30.98%
	QC value within limits for Ni Recovery = Not calculated					
Pb†	-4.3	-0.00115 mg/L	0.000704	-0.00115 mg/L	0.000704	61.34%
	QC value within limits for Pb Recovery = Not calculated					
Sb†	5.0	0.00310 mg/L	0.000885	0.00310 mg/L	0.000885	28.58%
	QC value within limits for Sb Recovery = Not calculated					
Se†	0.1	0.00006 mg/L	0.000664	0.00006 mg/L	0.000664	>999.9%
	QC value within limits for Se Recovery = Not calculated					
Tl†	3.1	0.00138 mg/L	0.001417	0.00138 mg/L	0.001417	102.33%
	QC value within limits for Tl Recovery = Not calculated					
V†	10.6	0.00007 mg/L	0.000012	0.00007 mg/L	0.000012	17.24%
	QC value within limits for V Recovery = Not calculated					
Zn†	2.1	0.00005 mg/L	0.000154	0.00005 mg/L	0.000154	298.09%
	QC value within limits for Zn Recovery = Not calculated					
QC Failed. Retry.						

Sequence No.: 36  
Sample ID: CCB  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 0  
Date Collected: 5/18/2008 19:48:04  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	402889.6	98.2 %	0.26			0.26%
Yr	457095.9	93.2 %	1.17			1.26%
Ag†	15.8	0.00007 mg/L	0.000126	0.00007 mg/L	0.000126	192.78%
	QC value within limits for Ag Recovery = Not calculated					
Al†	-10.1	-0.00123 mg/L	0.001465	-0.00123 mg/L	0.001465	118.87%
	QC value within limits for Al Recovery = Not calculated					
As†	0.0	0.00002 mg/L	0.000365	0.00002 mg/L	0.000365	>999.9%
	QC value within limits for As Recovery = Not calculated					
B_†	1429.7	0.0563 mg/L	0.00083	0.0563 mg/L	0.00083	1.47%
	QC value greater than the upper limit for B Recovery = Not calculated					
Ba†	-0.2	0.00000 mg/L	0.000004	0.00000 mg/L	0.000004	97.26%
	QC value within limits for Ba Recovery = Not calculated					
Be†	78.1	0.00003 mg/L	0.000022	0.00003 mg/L	0.000022	71.32%
	QC value within limits for Be Recovery = Not calculated					
Ca†	64.3	0.00208 mg/L	0.002305	0.00208 mg/L	0.002305	110.77%
	QC value within limits for Ca Recovery = Not calculated					
Cd†	-1.1	-0.00005 mg/L	0.000083	-0.00005 mg/L	0.000083	164.20%
	QC value within limits for Cd Recovery = Not calculated					
Co†	-1.5	-0.00011 mg/L	0.000202	-0.00011 mg/L	0.000202	189.67%
	QC value within limits for Co Recovery = Not calculated					
Cr†	0.7	0.00002 mg/L	0.000178	0.00002 mg/L	0.000178	>999.9%
	QC value within limits for Cr Recovery = Not calculated					
Cu†	-50.0	-0.00017 mg/L	0.000145	-0.00017 mg/L	0.000145	86.78%
	QC value within limits for Cu Recovery = Not calculated					
Fe†	12.8	0.00102 mg/L	0.000430	0.00102 mg/L	0.000430	42.24%
	QC value within limits for Fe Recovery = Not calculated					
K†	87.0	0.0659 mg/L	0.00444	0.0659 mg/L	0.00444	6.74%
	QC value within limits for K Recovery = Not calculated					
Mg†	45.3	0.00210 mg/L	0.000216	0.00210 mg/L	0.000216	10.31%
	QC value within limits for Mg Recovery = Not calculated					
Mn†	-72.2	-0.00015 mg/L	0.000001	-0.00015 mg/L	0.000001	0.52%
	QC value within limits for Mn Recovery = Not calculated					
Mo†	2.4	0.00024 mg/L	0.000470	0.00024 mg/L	0.000470	193.10%
	QC value within limits for Mo Recovery = Not calculated					
Na†	814.3	0.151 mg/L	0.0030	0.151 mg/L	0.0030	1.97%
	QC value within limits for Na Recovery = Not calculated					
Ni†	4.6	0.00025 mg/L	0.000167	0.00025 mg/L	0.000167	67.41%
	QC value within limits for Ni Recovery = Not calculated					
Pb†	-2.5	-0.00067 mg/L	0.000041	-0.00067 mg/L	0.000041	6.05%
	QC value within limits for Pb Recovery = Not calculated					
Sb†	3.6	0.00226 mg/L	0.000632	0.00226 mg/L	0.000632	28.00%
	QC value within limits for Sb Recovery = Not calculated					
Se†	3.0	0.00301 mg/L	0.003885	0.00301 mg/L	0.003885	128.98%
	QC value within limits for Se Recovery = Not calculated					
Tl†	5.7	0.00257 mg/L	0.000355	0.00257 mg/L	0.000355	13.81%
	QC value within limits for Tl Recovery = Not calculated					
V†	15.0	0.00010 mg/L	0.000009	0.00010 mg/L	0.000009	8.49%
	QC value within limits for V Recovery = Not calculated					
Zn†	1.4	0.00004 mg/L	0.000121	0.00004 mg/L	0.000121	345.57%
	QC value within limits for Zn Recovery = Not calculated					
QC Failed. Continue with analysis.						

Sequence No.: 37  
 Sample ID: MCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 5/18/2008 19:51:27  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: MCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	390513.4	95.2 %	0.96			
Yr	454055.0	92.6 %	1.40			1.01%
Ag†	121967.4	0.505 mg/L	0.0030	0.505 mg/L	0.0030	1.51%
	QC value within limits for Ag	Recovery = 100.97%				0.59%
Al†	22562.3	2.64 mg/L	0.022	2.64 mg/L	0.022	0.84%
	QC value within limits for Al	Recovery = 105.42%				
As†	3808.1	2.38 mg/L	0.018	2.38 mg/L	0.018	0.77%
	QC value within limits for As	Recovery = 95.04%				
B_†	33443.3	1.29 mg/L	0.001	1.29 mg/L	0.001	0.08%
	QC value within limits for B_	Recovery = 103.52%				
Ba†	103942.4	2.60 mg/L	0.013	2.60 mg/L	0.013	0.51%
	QC value within limits for Ba	Recovery = 104.20%				
Be†	2677205.7	1.07 mg/L	0.000	1.07 mg/L	0.000	0.01%
	QC value within limits for Be	Recovery = 107.15%				
Ca†	771879.3	25.0 mg/L	0.06	25.0 mg/L	0.06	0.25%
	QC value within limits for Ca	Recovery = 99.86%				
Cd†	21667.2	0.996 mg/L	0.0094	0.996 mg/L	0.0094	0.94%
	QC value within limits for Cd	Recovery = 99.62%				
Co†	39315.3	2.74 mg/L	0.006	2.74 mg/L	0.006	0.21%
	QC value within limits for Co	Recovery = 109.46%				
Cr†	110189.6	2.69 mg/L	0.014	2.69 mg/L	0.014	0.53%
	QC value within limits for Cr	Recovery = 107.59%				
Cu†	762661.0	2.56 mg/L	0.006	2.56 mg/L	0.006	0.24%
	QC value within limits for Cu	Recovery = 102.26%				
Fe†	29903.7	2.39 mg/L	0.013	2.39 mg/L	0.013	0.55%
	QC value within limits for Fe	Recovery = 95.53%				
K†	34874.8	26.4 mg/L	0.14	26.4 mg/L	0.14	0.54%
	QC value within limits for K	Recovery = 105.68%				
Mg†	532999.8	24.7 mg/L	0.12	24.7 mg/L	0.12	0.48%
	QC value within limits for Mg	Recovery = 98.77%				
Mn†	1272065.1	2.68 mg/L	0.001	2.68 mg/L	0.001	0.04%
	QC value within limits for Mn	Recovery = 107.26%				
Mo†	25661.4	2.58 mg/L	0.021	2.58 mg/L	0.021	0.80%
	QC value within limits for Mo	Recovery = 103.04%				
Na†	146602.8	27.2 mg/L	0.15	27.2 mg/L	0.15	0.55%
	QC value within limits for Na	Recovery = 108.93%				
Ni†	49925.1	2.69 mg/L	0.002	2.69 mg/L	0.002	0.09%
	QC value within limits for Ni	Recovery = 107.54%				
Pb†	10111.0	2.67 mg/L	0.023	2.67 mg/L	0.023	0.85%
	QC value within limits for Pb	Recovery = 106.91%				
Sb†	3904.4	2.43 mg/L	0.018	2.43 mg/L	0.018	0.73%
	QC value within limits for Sb	Recovery = 97.20%				
Se†	2447.0	2.45 mg/L	0.021	2.45 mg/L	0.021	0.86%
	QC value within limits for Se	Recovery = 98.17%				
Tl†	5934.9	2.71 mg/L	0.016	2.71 mg/L	0.016	0.59%
	QC value within limits for Tl	Recovery = 108.26%				
V†	377888.6	2.60 mg/L	0.009	2.60 mg/L	0.009	0.35%
	QC value within limits for V	Recovery = 103.92%				
Zn†	101157.6	2.64 mg/L	0.005	2.64 mg/L	0.005	0.20%
	QC value within limits for Zn	Recovery = 105.70%				

All analyte(s) passed QC.

Sequence No.: 38  
 Sample ID: 2805060305\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 56  
 Date Collected: 5/18/2008 19:55:11  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: 2805060305\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: 2805060305\_2X

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		RSD
	Intensity				Conc. Units	Std.Dev.	
Sca	348401.5		84.9 %	0.98			1.15%
Yr	422823.3		86.2 %	0.44			0.50%
Agf	-107.3	-0.00044	mg/L	0.000090	-0.00088	0.000180	20.43%
Alf	66.6	0.00655	mg/L	0.001757	0.0131	0.00351	26.85%
Asf	68.9	0.0430	mg/L	0.00091	0.0860	0.00183	2.12%
B_f	80527.6	3.17	mg/L	0.023	6.34	0.046	0.72%
Baf	235.6	0.00591	mg/L	0.000062	0.0118	0.00012	1.04%
Bef	-1535.0	-0.00047	mg/L	0.000001	-0.00094	0.000003	0.32%
Caf	10125071.9	327	mg/L	1.5	655	2.9	0.44%
Cdf	2.6	-0.00048	mg/L	0.000146	-0.00095	0.000292	30.59%
Cof	-10.7	-0.00075	mg/L	0.000014	-0.00149	0.000027	1.82%
Crf	36253.4	0.885	mg/L	0.0030	1.77	0.006	0.34%
Cuf	1069.8	0.00359	mg/L	0.000274	0.00718	0.000547	7.62%
Fef	79.3	0.00633	mg/L	0.000813	0.0127	0.00163	12.83%
Kf	10673.4	8.09	mg/L	0.044	16.2	0.09	0.55%
Mgf	2712215.5	126	mg/L	0.3	251	0.6	0.25%
Mnf	31.7	-0.00276	mg/L	0.000002	-0.00551	0.000005	0.08%
Mof	413.9	0.0415	mg/L	0.00001	0.0831	0.00002	0.03%
Naf	3467680.5	644	mg/L	5.7	1290	11.5	0.89%
Nif	25.3	0.00136	mg/L	0.000345	0.00272	0.000690	25.34%
Pbf	-40.2	-0.0106	mg/L	0.00102	-0.0213	0.00204	9.57%
Sbf	38.5	0.0213	mg/L	0.00169	0.0426	0.00338	7.94%
Sef	-37.6	-0.0376	mg/L	0.00470	-0.0753	0.00940	12.49%
Tlf	35.7	0.0162	mg/L	0.00459	0.0323	0.00917	28.39%
Vf	3489.6	0.0282	mg/L	0.00029	0.0564	0.00059	1.04%
Znf	305.6	0.00803	mg/L	0.000223	0.0161	0.00045	2.78%

Sequence No.: 39  
 Sample ID: 2805060311\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 57  
 Date Collected: 5/18/2008 19:59:33  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: 2805060311\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: 2805060311\_2X

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
	Intensity						
Sca	348916.3		85.0 %	1.21			1.42%
Yr	428066.5		87.3 %	0.30			0.35%
Agf	-199.2	-0.00077	mg/L	0.000309	-0.00154	0.000618	40.21%
Alf	1843.4	0.222	mg/L	0.0083	0.444	0.0167	3.75%
Asf	22.4	0.0140	mg/L	0.00084	0.0280	0.00167	5.99%
B_f	61111.2	2.41	mg/L	0.002	4.81	0.004	0.07%
Baf	335.3	0.00840	mg/L	0.000191	0.0168	0.00038	2.27%
Bef	-1273.0	-0.00051	mg/L	0.000018	-0.00101	0.000036	3.57%
Caf	10670134.8	345	mg/L	1.8	690	3.5	0.51%
Cdf	-8.7	-0.00060	mg/L	0.000290	-0.00120	0.000580	48.16%
Cof	4.8	0.00034	mg/L	0.000255	0.00067	0.000510	76.07%
Crf	589.8	0.0144	mg/L	0.00023	0.0288	0.00046	1.59%
Cuf	989.4	0.00332	mg/L	0.000175	0.00664	0.000351	5.29%
Fef	1852.6	0.148	mg/L	0.0011	0.296	0.0022	0.76%
Kf	13375.1	10.1	mg/L	0.09	20.3	0.17	0.85%
Mgf	3080182.5	143	mg/L	0.4	285	0.8	0.26%
Mnf	6063.8	0.00958	mg/L	0.000166	0.0192	0.00033	1.73%
Mof	229.9	0.0231	mg/L	0.00087	0.0462	0.00175	3.79%
Naf	2358745.0	438	mg/L	2.0	876	4.0	0.45%
Nif	5.2	0.00028	mg/L	0.000322	0.00056	0.000645	114.44%
Pbf	-35.7	-0.00942	mg/L	0.001396	-0.0188	0.00279	14.81%
Sbf	9.3	0.00586	mg/L	0.003568	0.0117	0.00714	60.85%
Set	-35.8	-0.0355	mg/L	0.00533	-0.0710	0.01065	15.00%
Tlf	23.7	0.0109	mg/L	0.00339	0.0217	0.00677	31.18%
Vf	2623.0	0.0180	mg/L	0.00015	0.0360	0.00030	0.84%
Znf	283.8	0.00746	mg/L	0.000045	0.0149	0.00009	0.60%

Sequence No.: 40  
 Sample ID: 2805060312\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 58  
 Date Collected: 5/18/2008 20:03:15  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060312\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805060312\_2X

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc.	Units		
Sca	348906.8		85.0 %	0.06				0.08%
Yr	423357.9		86.3 %	1.31				1.52%
Agf	-71.0	-0.00027	mg/L	0.000248	-0.00054	mg/L	0.000496	91.48%
Alt	1111.3	0.134	mg/L	0.0001	0.267	mg/L	0.0002	0.09%
Ast	28.9	0.0180	mg/L	0.00254	0.0361	mg/L	0.00507	14.06%
B_tf	62786.2	2.47	mg/L	0.011	4.94	mg/L	0.022	0.45%
Baf	286.3	0.00718	mg/L	0.000097	0.0144	mg/L	0.00019	1.35%
BeF	-1289.4	-0.00051	mg/L	0.000043	-0.00103	mg/L	0.000086	8.36%
CaF	11432441.2	370	mg/L	6.2	739	mg/L	12.3	1.67%
CdF	-7.8	-0.00062	mg/L	0.000081	-0.00124	mg/L	0.000161	13.01%
Cof	-2.8	-0.00019	mg/L	0.000641	-0.00038	mg/L	0.001282	334.90%
Crt	627.1	0.0153	mg/L	0.00020	0.0306	mg/L	0.00039	1.28%
CuF	786.3	0.00264	mg/L	0.000114	0.00528	mg/L	0.000228	4.32%
Fef	759.1	0.0606	mg/L	0.00053	0.121	mg/L	0.0011	0.87%
Kf	15186.8	11.5	mg/L	0.05	23.0	mg/L	0.11	0.47%
Mgf	3131611.4	145	mg/L	2.6	290	mg/L	5.2	1.78%
Mnt	2005.6	0.00097	mg/L	0.000069	0.00194	mg/L	0.000138	7.11%
Mof	240.5	0.0241	mg/L	0.00020	0.0483	mg/L	0.00040	0.82%
Naf	2533724.9	471	mg/L	8.0	941	mg/L	16.0	1.70%
Nit	-2.7	-0.00015	mg/L	0.000465	-0.00029	mg/L	0.000930	318.36%
Pbf	-46.3	-0.0122	mg/L	0.00168	-0.0245	mg/L	0.00335	13.70%
Sbf	11.5	0.00722	mg/L	0.002061	0.0144	mg/L	0.00412	28.53%
SeF	-39.8	-0.0396	mg/L	0.00366	-0.0793	mg/L	0.00733	9.24%
Tlf	25.7	0.0117	mg/L	0.00095	0.0234	mg/L	0.00190	8.14%
Vf	2651.3	0.0182	mg/L	0.00002	0.0364	mg/L	0.00004	0.10%
Znf	139.4	0.00366	mg/L	0.000093	0.00732	mg/L	0.000186	2.54%

Sequence No.: 41  
 Sample ID: 2805060313\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 59  
 Date Collected: 5/18/2008 20:07:37  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060313\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805060313\_2X

Analyte	Mean Corrected		Calib. Conc. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity				Conc.	Units		
Sca	333416.4		81.3 %	0.54				0.66%
Yr	409401.5		83.5 %	0.52				0.63%
Ag†	-243.1	-0.00099	mg/L	0.000363	-0.00198	mg/L	0.000726	36.67%
Al†	696.6	0.0826	mg/L	0.00154	0.165	mg/L	0.0031	1.86%
As†	12.4	0.00775	mg/L	0.000290	0.0155	mg/L	0.00058	3.74%
B_†	51648.4	2.03	mg/L	0.002	4.07	mg/L	0.005	0.12%
Ba†	374.3	0.00938	mg/L	0.000001	0.0188	mg/L	0.00000	0.01%
Be†	-1465.2	-0.00058	mg/L	0.000010	-0.00116	mg/L	0.000019	1.67%
Ca†	13215447.3	427	mg/L	1.4	855	mg/L	2.7	0.32%
Cd†	-15.1	-0.00082	mg/L	0.000052	-0.00164	mg/L	0.000104	6.36%
Co†	-4.1	-0.00029	mg/L	0.000202	-0.00057	mg/L	0.000404	70.92%
Cr†	1642.6	0.0401	mg/L	0.00056	0.0802	mg/L	0.00112	1.40%
Cu†	952.4	0.00319	mg/L	0.000153	0.00639	mg/L	0.000305	4.78%
Fe†	493.6	0.0394	mg/L	0.00107	0.0788	mg/L	0.00214	2.72%
K†	19752.2	15.0	mg/L	0.01	29.9	mg/L	0.01	0.05%
Mg†	4075853.4	189	mg/L	1.1	378	mg/L	2.2	0.57%
Mn†	1818.2	-0.00041	mg/L	0.000048	-0.00082	mg/L	0.000096	11.75%
Mo†	448.4	0.0450	mg/L	0.00028	0.0900	mg/L	0.00057	0.63%
Na†	4051618.4	753	mg/L	0.1	1510	mg/L	0.1	0.01%
Ni†	-9.3	-0.00050	mg/L	0.001039	-0.00100	mg/L	0.002077	206.86%
Pb†	-53.3	-0.0141	mg/L	0.00037	-0.0282	mg/L	0.00074	2.64%
Sb†	11.8	0.00730	mg/L	0.002824	0.0146	mg/L	0.00565	38.67%
Se†	-34.8	-0.0347	mg/L	0.00404	-0.0694	mg/L	0.00807	11.62%
Tl†	30.0	0.0135	mg/L	0.00265	0.0271	mg/L	0.00530	19.57%
V†	2239.2	0.0155	mg/L	0.00014	0.0310	mg/L	0.00028	0.89%
Zn†	113.8	0.00298	mg/L	0.000238	0.00596	mg/L	0.000475	7.97%



Sequence No.: 42  
 Sample ID: 2805060314\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 60  
 Date Collected: 5/18/2008 20:12:02  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060314\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805060314\_2X

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	336957.3	82.1	%	0.62				0.76%
Yr	412589.6	84.1	%	0.26				0.31%
Agf	-113.0	-0.00046	mg/L	0.000001	-0.00093	mg/L	0.000003	0.32%
Alf	105.0	0.0112	mg/L	0.00037	0.0224	mg/L	0.00074	3.30%
Asf	73.0	0.0455	mg/L	0.00584	0.0911	mg/L	0.01168	12.83%
B_f	83434.2	3.29	mg/L	0.012	6.57	mg/L	0.024	0.36%
Baf	262.5	0.00658	mg/L	0.000104	0.0132	mg/L	0.00021	1.58%
Bef	-1712.7	-0.00053	mg/L	0.000023	-0.00107	mg/L	0.000047	4.36%
Caf	10637776.7	344	mg/L	3.2	688	mg/L	6.4	0.93%
Cdf	-3.6	-0.00080	mg/L	0.000022	-0.00160	mg/L	0.000045	2.81%
Cof	-8.3	-0.00058	mg/L	0.000174	-0.00115	mg/L	0.000348	30.21%
Crf	38010.5	0.928	mg/L	0.0030	1.86	mg/L	0.006	0.33%
Cuf	799.4	0.00269	mg/L	0.000265	0.00537	mg/L	0.000530	9.87%
Fef	115.8	0.00924	mg/L	0.000278	0.0185	mg/L	0.00056	3.01%
Kf	11148.0	8.45	mg/L	0.067	16.9	mg/L	0.13	0.79%
Mgf	2784867.6	129	mg/L	1.0	258	mg/L	1.9	0.75%
Mnf	-16.4	-0.00293	mg/L	0.000039	-0.00587	mg/L	0.000077	1.31%
Mof	406.6	0.0408	mg/L	0.00007	0.0816	mg/L	0.00014	0.17%
Naf	3525794.7	655	mg/L	5.7	1310	mg/L	11.3	0.86%
Nif	19.5	0.00105	mg/L	0.000375	0.00211	mg/L	0.000750	35.64%
Pbf	-43.9	-0.0116	mg/L	0.00086	-0.0232	mg/L	0.00173	7.45%
Sbf	43.7	0.0244	mg/L	0.00205	0.0488	mg/L	0.00411	8.42%
Sef	-40.8	-0.0408	mg/L	0.00533	-0.0815	mg/L	0.01065	13.07%
Tlf	31.5	0.0143	mg/L	0.00003	0.0285	mg/L	0.00006	0.20%
Vf	3850.7	0.0309	mg/L	0.00023	0.0617	mg/L	0.00047	0.76%
Znf	127.6	0.00334	mg/L	0.000125	0.00668	mg/L	0.000249	3.73%

Sequence No.: 43  
 Sample ID: 2805060315\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 61  
 Date Collected: 5/18/2008 20:16:25  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060315\_2X

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: 2805060315\_2X

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	342807.2	83.5 %	%	0.52			0.62%
Yr	412260.4	84.1 %	%	0.19			0.23%
Agf	-126.8	-0.00042 mg/L	mg/L	0.000043	-0.00084 mg/L	0.000085	10.17%
Alt	5145.6	0.622 mg/L	mg/L	0.0038	1.24 mg/L	0.008	0.61%
Ast	136.1	0.0849 mg/L	mg/L	0.00210	0.170 mg/L	0.0042	2.48%
B_r	70153.2	2.76 mg/L	mg/L	0.010	5.52 mg/L	0.021	0.38%
Baf	466.7	0.0117 mg/L	mg/L	0.00020	0.0234 mg/L	0.00040	1.70%
Bef	-918.0	-0.00036 mg/L	mg/L	0.000016	-0.00071 mg/L	0.000033	4.62%
Caf	6615124.8	214 mg/L	mg/L	0.4	428 mg/L	0.9	0.20%
Cdf	24.3	-0.00003 mg/L	mg/L	0.000254	-0.00006 mg/L	0.000509	808.64%
Cof	-3.7	-0.00026 mg/L	mg/L	0.000463	-0.00051 mg/L	0.000925	181.05%
Crt	3084.2	0.0753 mg/L	mg/L	0.00053	0.151 mg/L	0.0011	0.71%
Cuf	901.0	0.00303 mg/L	mg/L	0.000127	0.00606 mg/L	0.000254	4.19%
Fef	3567.1	0.285 mg/L	mg/L	0.0071	0.570 mg/L	0.0142	2.49%
Kf	14192.0	10.8 mg/L	mg/L	0.14	21.5 mg/L	0.28	1.31%
Mgf	2158358.0	100.0 mg/L	mg/L	0.08	200 mg/L	0.2	0.08%
Mnf	19334.7	0.0385 mg/L	mg/L	0.00006	0.0770 mg/L	0.00013	0.17%
Mof	240.8	0.0242 mg/L	mg/L	0.00034	0.0483 mg/L	0.00068	1.41%
Naf	2997683.8	557 mg/L	mg/L	0.2	1110 mg/L	0.5	0.04%
Nif	10.7	0.00057 mg/L	mg/L	0.000271	0.00115 mg/L	0.000543	47.21%
Pbf	-33.7	-0.00892 mg/L	mg/L	0.000685	-0.0178 mg/L	0.00137	7.68%
Sbf	13.8	0.00860 mg/L	mg/L	0.005804	0.0172 mg/L	0.01161	67.50%
Sef	-23.4	-0.0227 mg/L	mg/L	0.00436	-0.0453 mg/L	0.00873	19.26%
Tlf	28.4	0.0132 mg/L	mg/L	0.00097	0.0265 mg/L	0.00194	7.34%
Vf	5304.6	0.0367 mg/L	mg/L	0.00026	0.0733 mg/L	0.00052	0.71%
Znf	146.2	0.00382 mg/L	mg/L	0.000445	0.00765 mg/L	0.000890	11.63%

Sequence No.: 44  
 Sample ID: 2805060316\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 62  
 Date Collected: 5/18/2008 20:20:08  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060316\_2X

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: 2805060316\_2X

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sca	345589.6	84.2	%	1.43				1.69%
Yr	425913.3	86.9	%	0.01				0.01%
Agf	-43.1	-0.00013	mg/L	0.000191	-0.00027	mg/L	0.000381	143.33%
Alf	5439.1	0.658	mg/L	0.0042	1.32	mg/L	0.008	0.64%
Asf	59.1	0.0369	mg/L	0.00050	0.0738	mg/L	0.00101	1.36%
B <sub>1</sub> f	53950.7	2.12	mg/L	0.027	4.25	mg/L	0.055	1.29%
B <sub>2</sub> f	642.5	0.0161	mg/L	0.00016	0.0322	mg/L	0.00032	1.00%
B <sub>3</sub> f	-1014.3	-0.00035	mg/L	0.000025	-0.00069	mg/L	0.000049	7.14%
Ca <sub>1</sub> f	9213661.2	298	mg/L	1.8	596	mg/L	3.7	0.61%
Cd <sub>1</sub> f	3.2	-0.00036	mg/L	0.000173	-0.00072	mg/L	0.000345	48.09%
Cd <sub>2</sub> f	3.4	0.00024	mg/L	0.000219	0.00047	mg/L	0.000437	92.34%
Crt	14922.5	0.364	mg/L	0.0060	0.729	mg/L	0.0121	1.66%
Cuf	991.0	0.00332	mg/L	0.000044	0.00665	mg/L	0.000087	1.32%
Fef	1534.2	0.123	mg/L	0.0032	0.245	mg/L	0.0065	2.64%
K <sub>1</sub> f	19703.2	14.9	mg/L	0.08	29.9	mg/L	0.16	0.54%
Mgf	2738284.4	127	mg/L	0.6	254	mg/L	1.3	0.51%
Mnt	132354.2	0.276	mg/L	0.0036	0.552	mg/L	0.0072	1.30%
Mof	27.6	0.00277	mg/L	0.000144	0.00554	mg/L	0.000289	5.21%
Na <sub>1</sub> f	2764648.1	514	mg/L	2.9	1030	mg/L	5.8	0.56%
Nif	45.8	0.00247	mg/L	0.000259	0.00493	mg/L	0.000518	10.50%
Pbf	-46.0	-0.0122	mg/L	0.00014	-0.0243	mg/L	0.00028	1.17%
Sbf	24.2	0.0140	mg/L	0.00301	0.0280	mg/L	0.00603	21.50%
Se <sub>1</sub> f	-37.8	-0.0376	mg/L	0.01844	-0.0751	mg/L	0.03689	49.12%
Tlf	25.3	0.0135	mg/L	0.00120	0.0271	mg/L	0.00240	8.88%
V <sub>1</sub> f	2374.6	0.0180	mg/L	0.00035	0.0360	mg/L	0.00070	1.94%
Znf	327.9	0.00859	mg/L	0.000338	0.0172	mg/L	0.00068	3.93%

Sequence No.: 45  
 Sample ID: 2805060317\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 63  
 Date Collected: 5/18/2008 20:23:50  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: 2805060317\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: 2805060317\_2X

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sca	328095.6	80.0	%	0.86				1.07%
Yr	407653.4	83.1	%	1.23				1.48%
Agf	-18.1	-0.00005	mg/L	0.000210	-0.00010	mg/L	0.000421	421.14%
Alf	866.1	0.104	mg/L	0.0030	0.207	mg/L	0.0061	2.94%
Ast	50.5	0.0315	mg/L	0.00259	0.0630	mg/L	0.00518	8.22%
B__f	35951.3	1.42	mg/L	0.005	2.83	mg/L	0.009	0.32%
Baf	660.1	0.0165	mg/L	0.00019	0.0331	mg/L	0.00039	1.18%
Bef	-1008.4	-0.00041	mg/L	0.000015	-0.00081	mg/L	0.000030	3.71%
Caf	5001830.9	162	mg/L	0.0	324	mg/L	0.1	0.02%
Cdf	-5.7	-0.00070	mg/L	0.000081	-0.00141	mg/L	0.000162	11.49%
Cof	8.9	0.00062	mg/L	0.000109	0.00124	mg/L	0.000218	17.62%
Crf	28.1	0.00068	mg/L	0.000030	0.00137	mg/L	0.000061	4.44%
Cut	1105.9	0.00373	mg/L	0.000147	0.00746	mg/L	0.000294	3.95%
Fef	850.0	0.0679	mg/L	0.00139	0.136	mg/L	0.0028	2.05%
Kf	29165.3	22.1	mg/L	0.30	44.2	mg/L	0.61	1.37%
Mgf	1653437.0	76.6	mg/L	0.00	153	mg/L	0.0	0.00%
Mnf	276390.0	0.581	mg/L	0.0002	1.16	mg/L	0.000	0.04%
Mof	313.4	0.0315	mg/L	0.00100	0.0629	mg/L	0.00200	3.18%
Naf	7082572.0	1320	mg/L	9.1	2630	mg/L	18.2	0.69%
Nif	27.1	0.00146	mg/L	0.000161	0.00291	mg/L	0.000322	11.05%
Pbf	-31.8	-0.00839	mg/L	0.002197	-0.0168	mg/L	0.00439	26.17%
Sbf	13.1	0.00865	mg/L	0.002170	0.0173	mg/L	0.00434	25.08%
Sef	-37.8	-0.0377	mg/L	0.01325	-0.0753	mg/L	0.02650	35.18%
Tlf	20.7	0.0138	mg/L	0.00851	0.0276	mg/L	0.01702	61.76%
Vf	10823.5	0.0740	mg/L	0.00059	0.148	mg/L	0.0012	0.80%
Znf	109.8	0.00285	mg/L	0.000122	0.00570	mg/L	0.000243	4.26%

Sequence No.: 46  
 Sample ID: 2805060318\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 64  
 Date Collected: 5/18/2008 20:28:13  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060318\_2X

Analyte Back Pressure Flow  
 All 215.0 kPa 0.65 L/min

## Mean Data: 2805060318\_2X

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	331178.1	80.7	%	0.46			0.58%
Yr	409047.4	83.4	%	0.06			0.08%
Ag†	-14.6	-0.00004	mg/L	0.000124	-0.00008 mg/L	0.000248	296.70%
Al†	640.0	0.0763	mg/L	0.00035	0.153 mg/L	0.0007	0.46%
As†	24.8	0.0155	mg/L	0.00264	0.0310 mg/L	0.00527	17.01%
B_†	32940.9	1.30	mg/L	0.004	2.59 mg/L	0.007	0.29%
Ba†	659.5	0.0165	mg/L	0.00006	0.0331 mg/L	0.00012	0.35%
Be†	-882.3	-0.00035	mg/L	0.000008	-0.00071 mg/L	0.000016	2.24%
Ca†	4521470.7	146	mg/L	0.1	292 mg/L	0.1	0.04%
Cd†	-0.7	-0.00024	mg/L	0.000234	-0.00049 mg/L	0.000469	95.85%
Co†	11.5	0.00080	mg/L	0.000342	0.00160 mg/L	0.000683	42.84%
Cr†	24.4	0.00060	mg/L	0.000038	0.00119 mg/L	0.000075	6.33%
Cu†	1171.2	0.00395	mg/L	0.000214	0.00789 mg/L	0.000429	5.43%
Fe†	626.4	0.0500	mg/L	0.00063	0.100 mg/L	0.0013	1.26%
K†	26002.9	19.7	mg/L	0.10	39.4 mg/L	0.21	0.53%
Mg†	1740582.0	80.6	mg/L	0.04	161 mg/L	0.1	0.05%
Mn†	421469.5	0.887	mg/L	0.0011	1.77 mg/L	0.002	0.12%
Mo†	295.8	0.0297	mg/L	0.00027	0.0594 mg/L	0.00053	0.89%
Na†	6856036.1	1270	mg/L	6.0	2550 mg/L	12.0	0.47%
Ni†	35.1	0.00189	mg/L	0.000158	0.00378 mg/L	0.000317	8.36%
Pb†	-30.7	-0.00812	mg/L	0.001721	-0.0162 mg/L	0.00344	21.21%
Sb†	6.1	0.00431	mg/L	0.000681	0.00862 mg/L	0.001362	15.80%
Se†	-26.5	-0.0264	mg/L	0.00463	-0.0527 mg/L	0.00926	17.57%
Tl†	15.4	0.0136	mg/L	0.00160	0.0273 mg/L	0.00319	11.71%
V†	10810.6	0.0739	mg/L	0.00020	0.148 mg/L	0.0004	0.27%
Zn†	134.9	0.00351	mg/L	0.000060	0.00701 mg/L	0.000120	1.71%

Sequence No.: 47  
 Sample ID: MBLANK2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 65  
 Date Collected: 5/18/2008 20:32:36  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: MBLANK2007

Analyte	Back Pressure	Flow
All	215.0 kPa	0.65 L/min

## Mean Data: MBLANK2007

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	406935.9	99.2	%	0.41				0.42%
Yr	463081.8	94.4	%	0.54				0.57%
Agf	13.7	0.00006	mg/L	0.000053	0.00006	mg/L	0.000053	90.99%
Alf	52.9	0.00640	mg/L	0.003100	0.00640	mg/L	0.003100	48.48%
Asf	1.5	0.00096	mg/L	0.000906	0.00096	mg/L	0.000906	94.29%
B_f	1213.2	0.0478	mg/L	0.00159	0.0478	mg/L	0.00159	3.33%
Bar	2.3	0.00006	mg/L	0.000030	0.00006	mg/L	0.000030	51.16%
Bef	52.3	0.00002	mg/L	0.000015	0.00002	mg/L	0.000015	72.11%
Caf	568.0	0.0184	mg/L	0.00101	0.0184	mg/L	0.00101	5.51%
Cdf	-4.8	-0.00024	mg/L	0.000037	-0.00024	mg/L	0.000037	15.47%
Cof	1.6	0.00011	mg/L	0.000105	0.00011	mg/L	0.000105	94.63%
Crf	-3.8	-0.00009	mg/L	0.000105	-0.00009	mg/L	0.000105	112.04%
Cuf	0.1	0.00000	mg/L	0.000349	0.00000	mg/L	0.000349	>999.9%
Fef	41.4	0.00331	mg/L	0.000108	0.00331	mg/L	0.000108	3.25%
Kf	180.3	0.137	mg/L	0.0790	0.137	mg/L	0.0790	57.81%
Mgf	135.1	0.00626	mg/L	0.000567	0.00626	mg/L	0.000567	9.05%
Mnf	-16.9	-0.00004	mg/L	0.000000	-0.00004	mg/L	0.000000	1.38%
Mof	-0.4	-0.00004	mg/L	0.000483	-0.00004	mg/L	0.000483	>999.9%
Naf	5695.6	1.06	mg/L	0.025	1.06	mg/L	0.025	2.41%
Nif	4.6	0.00025	mg/L	0.000026	0.00025	mg/L	0.000026	10.43%
Pbf	-7.0	-0.00185	mg/L	0.001097	-0.00185	mg/L	0.001097	59.20%
Sbf	-0.4	-0.00027	mg/L	0.000195	-0.00027	mg/L	0.000195	72.71%
Sef	1.9	0.00188	mg/L	0.008096	0.00188	mg/L	0.008096	429.97%
Tlf	2.1	0.00094	mg/L	0.002340	0.00094	mg/L	0.002340	248.63%
Vf	19.0	0.00013	mg/L	0.000126	0.00013	mg/L	0.000126	97.07%
Znf	121.0	0.00319	mg/L	0.000088	0.00319	mg/L	0.000088	2.75%

Sequence No.: 48  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 5/18/2008 20:36:17  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	380036.1	92.6	%	0.09			0.09%
Yr	439404.6	89.6	%	0.04			0.04%
Ag†	242514.4	1.00	mg/L	0.000	1.00 mg/L	0.000	0.05%
	QC value within limits for Ag Recovery = 100.37%						
Al†	45899.6	5.37	mg/L	0.012	5.37 mg/L	0.012	0.23%
	QC value within limits for Al Recovery = 107.33%						
As†	7634.1	4.76	mg/L	0.006	4.76 mg/L	0.006	0.12%
	QC value within limits for As Recovery = 95.26%						
B_†	65634.0	2.54	mg/L	0.006	2.54 mg/L	0.006	0.25%
	QC value within limits for B_ Recovery = 101.57%						
Ba†	203399.6	5.10	mg/L	0.003	5.10 mg/L	0.003	0.05%
	QC value within limits for Ba Recovery = 101.95%						
Be†	5249932.1	2.10	mg/L	0.004	2.10 mg/L	0.004	0.19%
	QC value within limits for Be Recovery = 105.06%						
Ca†	1485785.2	48.1	mg/L	0.15	48.1 mg/L	0.15	0.32%
	QC value within limits for Ca Recovery = 96.11%						
Cd†	43360.6	1.99	mg/L	0.001	1.99 mg/L	0.001	0.03%
	QC value within limits for Cd Recovery = 99.65%						
Co†	76796.1	5.35	mg/L	0.010	5.35 mg/L	0.010	0.19%
	QC value within limits for Co Recovery = 106.90%						
Cr†	216871.0	5.29	mg/L	0.005	5.29 mg/L	0.005	0.10%
	QC value within limits for Cr Recovery = 105.87%						
Cu†	1511807.3	5.07	mg/L	0.008	5.07 mg/L	0.008	0.15%
	QC value within limits for Cu Recovery = 101.36%						
Fe†	57050.0	4.56	mg/L	0.033	4.56 mg/L	0.033	0.72%
	QC value within limits for Fe Recovery = 91.12%						
K†	71332.6	54.0	mg/L	0.30	54.0 mg/L	0.30	0.56%
	QC value within limits for K Recovery = 108.08%						
Mg†	1019783.2	47.2	mg/L	0.16	47.2 mg/L	0.16	0.33%
	QC value within limits for Mg Recovery = 94.49%						
Mn†	2472328.1	5.21	mg/L	0.008	5.21 mg/L	0.008	0.15%
	QC value within limits for Mn Recovery = 104.23%						
Mo†	50805.7	5.10	mg/L	0.001	5.10 mg/L	0.001	0.02%
	QC value within limits for Mo Recovery = 102.00%						
Na†	288902.8	53.7	mg/L	0.06	53.7 mg/L	0.06	0.10%
	QC value within limits for Na Recovery = 107.33%						
Ni†	97088.9	5.23	mg/L	0.009	5.23 mg/L	0.009	0.17%
	QC value within limits for Ni Recovery = 104.57%						
Pb†	19718.1	5.21	mg/L	0.014	5.21 mg/L	0.014	0.27%
	QC value within limits for Pb Recovery = 104.25%						
Sb†	7759.3	4.83	mg/L	0.008	4.83 mg/L	0.008	0.16%
	QC value within limits for Sb Recovery = 96.59%						
Se†	4914.7	4.93	mg/L	0.029	4.93 mg/L	0.029	0.58%
	QC value within limits for Se Recovery = 98.57%						
Tl†	11511.7	5.25	mg/L	0.002	5.25 mg/L	0.002	0.05%
	QC value within limits for Tl Recovery = 105.00%						
V†	749932.8	5.16	mg/L	0.014	5.16 mg/L	0.014	0.27%
	QC value within limits for V Recovery = 103.11%						
Zn†	199038.4	5.20	mg/L	0.002	5.20 mg/L	0.002	0.04%
	QC value within limits for Zn Recovery = 104.00%						

All analyte(s) passed QC.

Sequence No.: 49  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 5/18/2008 20:40:07  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	402915.6	98.2	%	0.89			0.90%
Yr	448665.7	91.5	%	0.39			0.43%
Ag†	55.3	0.00023	mg/L	0.000087	0.00023 mg/L	0.000087	38.15%
	QC value within limits for Ag Recovery = Not calculated						
Al†	40.7	0.00488	mg/L	0.003633	0.00488 mg/L	0.003633	74.50%
	QC value within limits for Al Recovery = Not calculated						
As†	6.6	0.00411	mg/L	0.002895	0.00411 mg/L	0.002895	70.37%
	QC value within limits for As Recovery = Not calculated						
B_†	1318.3	0.0519	mg/L	0.00186	0.0519 mg/L	0.00186	3.58%
	QC value greater than the upper limit for B_ Recovery = Not calculated						
Ba†	0.8	0.00002	mg/L	0.000064	0.00002 mg/L	0.000064	303.40%
	QC value within limits for Ba Recovery = Not calculated						
Be†	196.2	0.00008	mg/L	0.000014	0.00008 mg/L	0.000014	17.55%
	QC value within limits for Be Recovery = Not calculated						
Ca†	-22.2	-0.00072	mg/L	0.000269	-0.00072 mg/L	0.000269	37.36%
	QC value within limits for Ca Recovery = Not calculated						
Cd†	2.7	0.00007	mg/L	0.000243	0.00007 mg/L	0.000243	340.03%
	QC value within limits for Cd Recovery = Not calculated						
Co†	-1.2	-0.00008	mg/L	0.000455	-0.00008 mg/L	0.000455	546.91%
	QC value within limits for Co Recovery = Not calculated						
Cr†	0.3	0.00001	mg/L	0.000034	0.00001 mg/L	0.000034	418.17%
	QC value within limits for Cr Recovery = Not calculated						
Cu†	-26.5	-0.00009	mg/L	0.000026	-0.00009 mg/L	0.000026	29.87%
	QC value within limits for Cu Recovery = Not calculated						
Fe†	22.1	0.00176	mg/L	0.000356	0.00176 mg/L	0.000356	20.19%
	QC value within limits for Fe Recovery = Not calculated						
K†	-24.6	-0.0186	mg/L	0.01565	-0.0186 mg/L	0.01565	84.02%
	QC value within limits for K Recovery = Not calculated						
Mg†	55.7	0.00258	mg/L	0.000551	0.00258 mg/L	0.000551	21.32%
	QC value within limits for Mg Recovery = Not calculated						
Mn†	-63.8	-0.00013	mg/L	0.000034	-0.00013 mg/L	0.000034	25.52%
	QC value within limits for Mn Recovery = Not calculated						
Mo†	12.1	0.00122	mg/L	0.000274	0.00122 mg/L	0.000274	22.51%
	QC value within limits for Mo Recovery = Not calculated						
Na†	1515.8	0.282	mg/L	0.0053	0.282 mg/L	0.0053	1.89%
	QC value within limits for Na Recovery = Not calculated						
Ni†	13.5	0.00073	mg/L	0.000082	0.00073 mg/L	0.000082	11.20%
	QC value within limits for Ni Recovery = Not calculated						
Pb†	-4.1	-0.00109	mg/L	0.000494	-0.00109 mg/L	0.000494	45.33%
	QC value within limits for Pb Recovery = Not calculated						
Sb†	5.5	0.00341	mg/L	0.000670	0.00341 mg/L	0.000670	19.65%
	QC value within limits for Sb Recovery = Not calculated						
Se†	1.1	0.00107	mg/L	0.004407	0.00107 mg/L	0.004407	412.42%
	QC value within limits for Se Recovery = Not calculated						
Tl†	7.5	0.00341	mg/L	0.000458	0.00341 mg/L	0.000458	13.42%
	QC value within limits for Tl Recovery = Not calculated						
V†	10.9	0.00008	mg/L	0.000066	0.00008 mg/L	0.000066	88.03%
	QC value within limits for V Recovery = Not calculated						
Zn†	5.4	0.00014	mg/L	0.000101	0.00014 mg/L	0.000101	72.95%
	QC value within limits for Zn Recovery = Not calculated						
QC Failed. Retry.							

Sequence No.: 50  
 Sample ID: CCB

Autosampler Location: 0  
 Date Collected: 5/18/2008 20:42:40



Analyst:  
Initial Sample Wt:  
Dilution:

Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

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Nebulizer Parameters: CCB

Analyte                      Back Pressure              Flow  
All                              214.0 kPa                      0.65 L/min

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	405359.3	98.8	%	0.54			0.55%
Yr	445511.0	90.9	%	0.07			0.08%
Ag†	81.2	0.00034	mg/L	0.000363	0.00034 mg/L	0.000363	107.98%
	QC value within limits for Ag	Recovery = Not calculated					
Al†	5.7	0.00068	mg/L	0.003977	0.00068 mg/L	0.003977	588.21%
	QC value within limits for Al	Recovery = Not calculated					
As†	5.8	0.00360	mg/L	0.002146	0.00360 mg/L	0.002146	59.66%
	QC value within limits for As	Recovery = Not calculated					
B_†	1075.7	0.0424	mg/L	0.00066	0.0424 mg/L	0.00066	1.55%
	QC value greater than the upper limit for B_	Recovery = Not calculated					
Ba†	2.2	0.00005	mg/L	0.000061	0.00005 mg/L	0.000061	111.09%
	QC value within limits for Ba	Recovery = Not calculated					
Be†	147.3	0.00006	mg/L	0.000017	0.00006 mg/L	0.000017	28.15%
	QC value within limits for Be	Recovery = Not calculated					
Ca†	-31.1	-0.00100	mg/L	0.000267	-0.00100 mg/L	0.000267	26.55%
	QC value within limits for Ca	Recovery = Not calculated					
Cd†	-1.5	-0.00012	mg/L	0.000165	-0.00012 mg/L	0.000165	137.32%
	QC value within limits for Cd	Recovery = Not calculated					
Co†	-1.3	-0.00009	mg/L	0.000593	-0.00009 mg/L	0.000593	656.80%
	QC value within limits for Co	Recovery = Not calculated					
Cr†	-2.3	-0.00006	mg/L	0.000073	-0.00006 mg/L	0.000073	130.61%
	QC value within limits for Cr	Recovery = Not calculated					
Cu†	-82.5	-0.00028	mg/L	0.000141	-0.00028 mg/L	0.000141	51.16%
	QC value within limits for Cu	Recovery = Not calculated					
Fe†	13.1	0.00105	mg/L	0.000189	0.00105 mg/L	0.000189	18.07%
	QC value within limits for Fe	Recovery = Not calculated					
K†	24.0	0.0182	mg/L	0.09675	0.0182 mg/L	0.09675	532.12%
	QC value within limits for K	Recovery = Not calculated					
Mg†	43.5	0.00202	mg/L	0.000067	0.00202 mg/L	0.000067	3.31%
	QC value within limits for Mg	Recovery = Not calculated					
Mn†	-84.2	-0.00018	mg/L	0.000004	-0.00018 mg/L	0.000004	2.20%
	QC value within limits for Mn	Recovery = Not calculated					
Mo†	3.5	0.00035	mg/L	0.000181	0.00035 mg/L	0.000181	51.10%
	QC value within limits for Mo	Recovery = Not calculated					
Na†	1413.7	0.263	mg/L	0.0006	0.263 mg/L	0.0006	0.23%
	QC value within limits for Na	Recovery = Not calculated					
Ni†	8.3	0.00045	mg/L	0.000077	0.00045 mg/L	0.000077	17.13%
	QC value within limits for Ni	Recovery = Not calculated					
Pb†	-3.8	-0.00100	mg/L	0.001626	-0.00100 mg/L	0.001626	163.27%
	QC value within limits for Pb	Recovery = Not calculated					
Sb†	4.3	0.00264	mg/L	0.000924	0.00264 mg/L	0.000924	34.99%
	QC value within limits for Sb	Recovery = Not calculated					
Se†	2.4	0.00236	mg/L	0.004080	0.00236 mg/L	0.004080	172.69%
	QC value within limits for Se	Recovery = Not calculated					
Tl†	7.6	0.00346	mg/L	0.000867	0.00346 mg/L	0.000867	25.09%
	QC value within limits for Tl	Recovery = Not calculated					
V†	14.3	0.00010	mg/L	0.000066	0.00010 mg/L	0.000066	68.02%
	QC value within limits for V	Recovery = Not calculated					
Zn†	-2.4	-0.00007	mg/L	0.000118	-0.00007 mg/L	0.000118	180.31%
	QC value within limits for Zn	Recovery = Not calculated					

QC Failed. Retry.

Sequence No.: 51  
Sample ID: CCB  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 0  
Date Collected: 5/18/2008 20:45:13  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

## Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	403718.7	98.4 %		1.08			1.10%
Yr	450031.5	91.8 %		0.10			0.11%
Ag†	88.9	0.00037 mg/L		0.000098	0.00037 mg/L	0.000098	26.56%
	QC value within limits for Ag Recovery = Not calculated						
Al†	12.9	0.00155 mg/L		0.001323	0.00155 mg/L	0.001323	85.16%
	QC value within limits for Al Recovery = Not calculated						
As†	2.6	0.00160 mg/L		0.001292	0.00160 mg/L	0.001292	80.96%
	QC value within limits for As Recovery = Not calculated						
B_†	959.2	0.0378 mg/L		0.00109	0.0378 mg/L	0.00109	2.90%
	QC value greater than the upper limit for B Recovery = Not calculated						
Ba†	-2.3	-0.00006 mg/L		0.000020	-0.00006 mg/L	0.000020	35.07%
	QC value within limits for Ba Recovery = Not calculated						
Be†	58.6	0.00002 mg/L		0.000000	0.00002 mg/L	0.000000	0.61%
	QC value within limits for Be Recovery = Not calculated						
Ca†	-55.8	-0.00180 mg/L		0.001548	-0.00180 mg/L	0.001548	85.75%
	QC value within limits for Ca Recovery = Not calculated						
Cd†	0.9	0.00002 mg/L		0.000077	0.00002 mg/L	0.000077	364.63%
	QC value within limits for Cd Recovery = Not calculated						
Co†	-3.9	-0.00027 mg/L		0.000473	-0.00027 mg/L	0.000473	175.69%
	QC value within limits for Co Recovery = Not calculated						
Cr†	-3.4	-0.00008 mg/L		0.000006	-0.00008 mg/L	0.000006	7.29%
	QC value within limits for Cr Recovery = Not calculated						
Cu†	-24.3	-0.00008 mg/L		0.000075	-0.00008 mg/L	0.000075	92.04%
	QC value within limits for Cu Recovery = Not calculated						
Fe†	9.6	0.00077 mg/L		0.000010	0.00077 mg/L	0.000010	1.37%
	QC value within limits for Fe Recovery = Not calculated						
K†	96.2	0.0729 mg/L		0.01486	0.0729 mg/L	0.01486	20.40%
	QC value within limits for K Recovery = Not calculated						
Mg†	37.7	0.00175 mg/L		0.000309	0.00175 mg/L	0.000309	17.68%
	QC value within limits for Mg Recovery = Not calculated						
Mn†	-93.7	-0.00020 mg/L		0.000011	-0.00020 mg/L	0.000011	5.46%
	QC value within limits for Mn Recovery = Not calculated						
Mo†	1.6	0.00016 mg/L		0.000248	0.00016 mg/L	0.000248	156.83%
	QC value within limits for Mo Recovery = Not calculated						
Na†	1427.7	0.265 mg/L		0.0057	0.265 mg/L	0.0057	2.17%
	QC value within limits for Na Recovery = Not calculated						
Ni†	8.1	0.00044 mg/L		0.000015	0.00044 mg/L	0.000015	3.45%
	QC value within limits for Ni Recovery = Not calculated						
Pb†	-7.1	-0.00187 mg/L		0.000463	-0.00187 mg/L	0.000463	24.74%
	QC value within limits for Pb Recovery = Not calculated						
Sb†	5.5	0.00340 mg/L		0.000904	0.00340 mg/L	0.000904	26.63%
	QC value within limits for Sb Recovery = Not calculated						
Se†	0.9	0.00093 mg/L		0.000469	0.00093 mg/L	0.000469	50.69%
	QC value within limits for Se Recovery = Not calculated						
Tl†	2.1	0.00093 mg/L		0.000701	0.00093 mg/L	0.000701	75.45%
	QC value within limits for Tl Recovery = Not calculated						
V†	14.7	0.00010 mg/L		0.000108	0.00010 mg/L	0.000108	107.81%
	QC value within limits for V Recovery = Not calculated						
Zn†	-1.7	-0.00005 mg/L		0.000063	-0.00005 mg/L	0.000063	131.65%
	QC value within limits for Zn Recovery = Not calculated						

QC Failed. Continue with analysis.

Sequence No.: 52  
 Sample ID: MRL  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 21  
 Date Collected: 5/18/2008 20:48:36  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: MRL

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: MRL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Scs	406766.4	99.1	%	0.50			0.51%
Yr	452451.8	92.3	%	1.17			1.27%
Agf	2531.6	0.0105	mg/L	0.00026	0.0105 mg/L	0.00026	2.44%
Alf	435.9	0.0520	mg/L	0.00253	0.0520 mg/L	0.00253	4.88%
Ast	146.0	0.0911	mg/L	0.00146	0.0911 mg/L	0.00146	1.60%
B_lf	2076.6	0.0816	mg/L	0.00046	0.0816 mg/L	0.00046	0.56%
Bar	823.0	0.0206	mg/L	0.00026	0.0206 mg/L	0.00026	1.25%
Bef	2802.2	0.00112	mg/L	0.000024	0.00112 mg/L	0.000024	2.12%
Car	29500.3	0.954	mg/L	0.0149	0.954 mg/L	0.0149	1.56%
Cdf	122.8	0.00469	mg/L	0.000028	0.00469 mg/L	0.000028	0.60%
Cof	788.6	0.0549	mg/L	0.00040	0.0549 mg/L	0.00040	0.73%
Crf	429.9	0.0105	mg/L	0.00019	0.0105 mg/L	0.00019	1.83%
Cuf	3006.9	0.0101	mg/L	0.00011	0.0101 mg/L	0.00011	1.11%
Fef	238.2	0.0190	mg/L	0.00012	0.0190 mg/L	0.00012	0.61%
Kf	1465.9	1.11	mg/L	0.011	1.11 mg/L	0.011	1.01%
Mgf	2145.9	0.0994	mg/L	0.00114	0.0994 mg/L	0.00114	1.15%
Mnf	912.6	0.00192	mg/L	0.000043	0.00192 mg/L	0.000043	2.22%
Mof	202.4	0.0203	mg/L	0.00051	0.0203 mg/L	0.00051	2.53%
Naf	6806.6	1.26	mg/L	0.014	1.26 mg/L	0.014	1.13%
Nif	413.8	0.0223	mg/L	0.00059	0.0223 mg/L	0.00059	2.66%
Pbf	74.2	0.0196	mg/L	0.00041	0.0196 mg/L	0.00041	2.11%
Sbf	73.5	0.0456	mg/L	0.00490	0.0456 mg/L	0.00490	10.75%
Set	95.5	0.0956	mg/L	0.00356	0.0956 mg/L	0.00356	3.72%
Tlf	248.4	0.113	mg/L	0.0004	0.113 mg/L	0.0004	0.33%
Vf	306.6	0.00216	mg/L	0.000055	0.00216 mg/L	0.000055	2.54%
Znf	778.2	0.0203	mg/L	0.00004	0.0203 mg/L	0.00004	0.19%

Sequence No.: 53  
 Sample ID: MRL2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 24  
 Date Collected: 5/18/2008 20:52:12  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: MRL2007

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: MRL2007

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	410800.5	100 %	0.1			0.09%
Yr	456560.2	93.1 %	0.33			0.35%
Agf	2709.5	0.0112 mg/L	0.00021	0.0112 mg/L	0.00021	1.85%
Alf	470.9	0.0562 mg/L	0.00018	0.0562 mg/L	0.00018	0.33%
Asf	165.0	0.103 mg/L	0.0020	0.103 mg/L	0.0020	1.97%
B_tf	2101.8	0.0825 mg/L	0.00032	0.0825 mg/L	0.00032	0.39%
Baf	891.3	0.0223 mg/L	0.00013	0.0223 mg/L	0.00013	0.60%
Bef	2914.0	0.00117 mg/L	0.00004	0.00117 mg/L	0.00004	0.36%
Caf	32710.5	1.06 mg/L	0.012	1.06 mg/L	0.012	1.15%
Cdf	141.3	0.00542 mg/L	0.000206	0.00542 mg/L	0.000206	3.80%
Cof	869.4	0.0605 mg/L	0.00006	0.0605 mg/L	0.00006	0.11%
Crf	467.7	0.0114 mg/L	0.00000	0.0114 mg/L	0.00000	0.01%
Cuf	3353.7	0.0113 mg/L	0.00002	0.0113 mg/L	0.00002	0.20%
Fef	286.0	0.0228 mg/L	0.00005	0.0228 mg/L	0.00005	0.24%
Kf	1590.2	1.20 mg/L	0.010	1.20 mg/L	0.010	0.85%
Mgf	2360.6	0.109 mg/L	0.0007	0.109 mg/L	0.0007	0.61%
Mnf	972.7	0.00205 mg/L	0.000022	0.00205 mg/L	0.000022	1.06%
Mof	214.0	0.0215 mg/L	0.00049	0.0215 mg/L	0.00049	2.29%
Naf	7308.6	1.36 mg/L	0.023	1.36 mg/L	0.023	1.72%
Nif	443.3	0.0239 mg/L	0.00018	0.0239 mg/L	0.00018	0.75%
Pbf	87.0	0.0230 mg/L	0.00040	0.0230 mg/L	0.00040	1.73%
Sbf	86.2	0.0534 mg/L	0.00071	0.0534 mg/L	0.00071	1.32%
Sef	103.8	0.104 mg/L	0.0020	0.104 mg/L	0.0020	1.93%
Tlf	267.1	0.121 mg/L	0.0009	0.121 mg/L	0.0009	0.74%
Vf	333.7	0.00235 mg/L	0.000047	0.00235 mg/L	0.000047	2.00%
Znf	972.0	0.0254 mg/L	0.00005	0.0254 mg/L	0.00005	0.18%

Sequence No.: 54  
 Sample ID: LCS2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 66  
 Date Collected: 5/18/2008 20:55:50  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: LCS2007

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: LCS2007

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	393292.5	95.9	%	0.35			0.37%
Yr	443151.3	90.4	%	0.19			0.20%
Agf	112816.7	0.468	mg/L	0.0013	0.468 mg/L	0.0013	0.26%
Alf	17194.5	2.05	mg/L	0.018	2.05 mg/L	0.018	0.87%
Asf	1473.1	0.919	mg/L	0.0041	0.919 mg/L	0.0041	0.45%
B_tf	12614.8	0.488	mg/L	0.0046	0.488 mg/L	0.0046	0.94%
Baf	37754.9	0.946	mg/L	0.0007	0.946 mg/L	0.0007	0.08%
Bef	124276.5	0.0499	mg/L	0.00008	0.0499 mg/L	0.00008	0.15%
Caf	1380945.9	44.7	mg/L	0.36	44.7 mg/L	0.36	0.81%
Cdf	4160.6	0.186	mg/L	0.0004	0.186 mg/L	0.0004	0.23%
Cof	14626.6	1.02	mg/L	0.003	1.02 mg/L	0.003	0.25%
Crf	40206.0	0.981	mg/L	0.0028	0.981 mg/L	0.0028	0.28%
Cuf	286053.3	0.959	mg/L	0.0032	0.959 mg/L	0.0032	0.33%
Fef	52864.3	4.22	mg/L	0.044	4.22 mg/L	0.044	1.04%
Kf	27084.8	20.5	mg/L	0.11	20.5 mg/L	0.11	0.53%
Mgf	386302.8	17.9	mg/L	0.09	17.9 mg/L	0.09	0.52%
Mnf	233959.6	0.493	mg/L	0.0004	0.493 mg/L	0.0004	0.07%
Mof	9505.8	0.954	mg/L	0.0002	0.954 mg/L	0.0002	0.02%
Naf	270801.1	50.3	mg/L	0.36	50.3 mg/L	0.36	0.72%
Nif	9197.1	0.495	mg/L	0.0010	0.495 mg/L	0.0010	0.20%
Pbf	3750.5	0.991	mg/L	0.0019	0.991 mg/L	0.0019	0.19%
Sbf	744.2	0.465	mg/L	0.0023	0.465 mg/L	0.0023	0.50%
Sef	927.9	0.939	mg/L	0.0100	0.939 mg/L	0.0100	1.07%
Tlf	2233.7	1.01	mg/L	0.002	1.01 mg/L	0.002	0.21%
Vf	140128.8	0.963	mg/L	0.0022	0.963 mg/L	0.0022	0.22%
Znf	37856.1	0.992	mg/L	0.0020	0.992 mg/L	0.0020	0.20%

Sequence No.: 55  
 Sample ID: LCSD2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 67  
 Date Collected: 5/18/2008 20:59:30  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: LCSD2007

Analyte	Back Pressure	Flow
All	215.0 kPa	0.65 L/min

## Mean Data: LCSD2007

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
Sca	394284.9	96.1	%	0.12				0.13%
Yr	436878.1	89.1	%	0.03				0.03%
Agf	112557.6	0.467	mg/L	0.0020	0.467	mg/L	0.0020	0.44%
Alf	17112.0	2.04	mg/L	0.007	2.04	mg/L	0.007	0.34%
Ast	1459.4	0.911	mg/L	0.0032	0.911	mg/L	0.0032	0.35%
B_f	12627.2	0.489	mg/L	0.0041	0.489	mg/L	0.0041	0.85%
Bat	37717.7	0.945	mg/L	0.0039	0.945	mg/L	0.0039	0.41%
Bef	124254.8	0.0499	mg/L	0.00042	0.0499	mg/L	0.00042	0.85%
Cat	1378464.4	44.6	mg/L	0.42	44.6	mg/L	0.42	0.95%
Cdf	4102.2	0.184	mg/L	0.0003	0.184	mg/L	0.0003	0.16%
Cof	14474.2	1.01	mg/L	0.006	1.01	mg/L	0.006	0.64%
Crt	40424.4	0.987	mg/L	0.0119	0.987	mg/L	0.0119	1.21%
Cuf	284941.8	0.955	mg/L	0.0037	0.955	mg/L	0.0037	0.39%
Fef	52707.9	4.21	mg/L	0.014	4.21	mg/L	0.014	0.33%
Kf	26827.3	20.3	mg/L	0.11	20.3	mg/L	0.11	0.56%
Mgf	385418.3	17.9	mg/L	0.01	17.9	mg/L	0.01	0.06%
Mnf	233623.0	0.492	mg/L	0.0020	0.492	mg/L	0.0020	0.41%
Mof	9378.0	0.941	mg/L	0.0020	0.941	mg/L	0.0020	0.21%
Naf	271512.9	50.4	mg/L	0.13	50.4	mg/L	0.13	0.26%
Nif	9058.2	0.488	mg/L	0.0010	0.488	mg/L	0.0010	0.21%
Pbf	3715.0	0.982	mg/L	0.0048	0.982	mg/L	0.0048	0.49%
Sbf	729.2	0.456	mg/L	0.0085	0.456	mg/L	0.0085	1.87%
Sef	919.4	0.930	mg/L	0.0014	0.930	mg/L	0.0014	0.15%
Tlf	2213.2	1.01	mg/L	0.003	1.01	mg/L	0.003	0.34%
Vf	139883.4	0.962	mg/L	0.0052	0.962	mg/L	0.0052	0.54%
Znf	37792.4	0.991	mg/L	0.0076	0.991	mg/L	0.0076	0.77%

Sequence No.: 56  
 Sample ID: 2805070236\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 68  
 Date Collected: 5/18/2008 21:03:12  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805070236\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805070236\_2X

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	354900.6	86.5	%	0.30				0.35%
Yr	411587.5	83.9	%	1.20				1.43%
Agf	-14.0	-0.00006	mg/L	0.000144	-0.00011	mg/L	0.000288	251.01%
Alt	-23.4	-0.00338	mg/L	0.000103	-0.00677	mg/L	0.000205	3.03%
Asf	64.6	0.0403	mg/L	0.00112	0.0806	mg/L	0.00225	2.78%
B_tf	51511.9	2.03	mg/L	0.010	4.06	mg/L	0.021	0.51%
Baf	716.2	0.0179	mg/L	0.00017	0.0359	mg/L	0.00033	0.93%
Bef	-1349.8	-0.00033	mg/L	0.000010	-0.00067	mg/L	0.000020	2.91%
Caf	4211514.0	136	mg/L	0.2	272	mg/L	0.4	0.15%
Cdf	8.3	-0.00017	mg/L	0.000198	-0.00033	mg/L	0.000397	118.41%
Cof	-8.9	-0.00062	mg/L	0.000230	-0.00125	mg/L	0.000460	36.93%
Crt	51134.1	1.25	mg/L	0.020	2.50	mg/L	0.040	1.59%
Cuf	564.0	0.00189	mg/L	0.000342	0.00379	mg/L	0.000684	18.05%
Fef	12.9	0.00103	mg/L	0.000289	0.00207	mg/L	0.000578	27.98%
Kf	20219.2	15.3	mg/L	0.09	30.6	mg/L	0.18	0.58%
Mgf	1481333.2	68.6	mg/L	0.02	137	mg/L	0.0	0.03%
Mnf	10515.8	0.0206	mg/L	0.00007	0.0413	mg/L	0.00013	0.32%
Mof	150.6	0.0151	mg/L	0.00015	0.0302	mg/L	0.00031	1.01%
Naf	3338340.8	620	mg/L	1.0	1240	mg/L	2.0	0.16%
Nif	-6.7	-0.00036	mg/L	0.000055	-0.00072	mg/L	0.000109	15.07%
Pbf	-37.0	-0.00977	mg/L	0.000152	-0.0195	mg/L	0.00030	1.56%
Sbf	44.9	0.0241	mg/L	0.00564	0.0482	mg/L	0.01129	23.43%
Sef	-25.7	-0.0257	mg/L	0.01292	-0.0513	mg/L	0.02584	50.34%
Tlf	31.3	0.0144	mg/L	0.00245	0.0288	mg/L	0.00491	17.06%
Vf	2561.5	0.0236	mg/L	0.00014	0.0472	mg/L	0.00028	0.60%
Znf	17.2	0.00042	mg/L	0.000002	0.00084	mg/L	0.000004	0.48%

Sequence No.: 57  
 Sample ID: 2805070236MS\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 69  
 Date Collected: 5/18/2008 21:07:33  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805070236MS\_2X

Analyte Back Pressure Flow  
 All 215.0 kPa 0.65 L/min

## Mean Data: 2805070236MS\_2X

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	353976.3	86.3 %	1.01			1.17%
Yr	420884.0	85.8 %	0.15			0.17%
Ag†	64604.9	0.268 mg/L	0.0000	0.536 mg/L	0.0000	0.01%
Al†	9471.2	1.13 mg/L	0.017	2.25 mg/L	0.034	1.50%
As†	944.0	0.589 mg/L	0.0065	1.18 mg/L	0.013	1.11%
B_†	57873.1	2.28 mg/L	0.002	4.55 mg/L	0.003	0.07%
Ba†	21482.6	0.538 mg/L	0.0019	1.08 mg/L	0.004	0.36%
Be†	67497.9	0.0273 mg/L	0.00005	0.0546 mg/L	0.00010	0.18%
Ca†	4832035.2	156 mg/L	0.4	313 mg/L	0.9	0.28%
Cd†	2351.4	0.104 mg/L	0.0011	0.209 mg/L	0.0021	1.02%
Co†	7804.2	0.543 mg/L	0.0032	1.09 mg/L	0.006	0.59%
Cr†	72702.9	1.77 mg/L	0.010	3.55 mg/L	0.019	0.54%
Cu†	162833.6	0.546 mg/L	0.0040	1.09 mg/L	0.008	0.74%
Fe†	29591.6	2.36 mg/L	0.024	4.73 mg/L	0.048	1.02%
K†	35320.5	26.8 mg/L	0.24	53.5 mg/L	0.48	0.89%
Mg†	1654790.4	76.7 mg/L	0.08	153 mg/L	0.2	0.10%
Mn†	139446.8	0.292 mg/L	0.0011	0.585 mg/L	0.0022	0.38%
Mo†	5328.0	0.535 mg/L	0.0057	1.07 mg/L	0.011	1.06%
Na†	3338765.2	620 mg/L	0.9	1240 mg/L	1.8	0.14%
Ni†	4796.8	0.258 mg/L	0.0021	0.517 mg/L	0.0042	0.81%
Pb†	1938.3	0.512 mg/L	0.0018	1.02 mg/L	0.004	0.35%
Sb†	468.4	0.289 mg/L	0.0017	0.577 mg/L	0.0035	0.60%
Se†	513.6	0.520 mg/L	0.0068	1.04 mg/L	0.014	1.31%
Tl†	1137.0	0.517 mg/L	0.0093	1.03 mg/L	0.019	1.81%
V†	80551.6	0.560 mg/L	0.0005	1.12 mg/L	0.001	0.10%
Zn†	21583.6	0.566 mg/L	0.0013	1.13 mg/L	0.003	0.22%



Sequence No.: 58  
 Sample ID: 2805070236MSD\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 70  
 Date Collected: 5/18/2008 21:11:17  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805070236MSD\_2X

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: 2805070236MSD\_2X

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	356144.2	86.8 %	0.85			0.98%
Yr	417794.9	85.2 %	0.69			0.81%
Agf	63452.8	0.263 mg/L	0.0004	0.526 mg/L	0.0009	0.17%
Alf	9289.8	1.10 mg/L	0.002	2.21 mg/L	0.004	0.18%
Asf	920.3	0.574 mg/L	0.0078	1.15 mg/L	0.016	1.35%
B_f	56710.7	2.23 mg/L	0.016	4.46 mg/L	0.033	0.74%
Baf	21247.6	0.532 mg/L	0.0023	1.06 mg/L	0.005	0.43%
Bef	66366.9	0.0268 mg/L	0.00001	0.0536 mg/L	0.00002	0.05%
Caf	4710292.1	152 mg/L	0.2	305 mg/L	0.4	0.13%
Cdf	2318.2	0.103 mg/L	0.0010	0.206 mg/L	0.0019	0.93%
Cof	7717.5	0.537 mg/L	0.0068	1.07 mg/L	0.014	1.27%
Crf	70788.2	1.73 mg/L	0.003	3.46 mg/L	0.007	0.19%
Cuf	159165.5	0.534 mg/L	0.0019	1.07 mg/L	0.004	0.36%
Fef	28142.6	2.25 mg/L	0.021	4.49 mg/L	0.042	0.94%
Kf	34251.9	25.9 mg/L	0.31	51.9 mg/L	0.62	1.19%
Mgf	1604163.3	74.3 mg/L	0.07	149 mg/L	0.1	0.09%
Mnf	137204.3	0.288 mg/L	0.0002	0.575 mg/L	0.0004	0.06%
Mof	5249.9	0.527 mg/L	0.0034	1.05 mg/L	0.007	0.65%
Naf	3283424.5	610 mg/L	2.2	1220 mg/L	4.4	0.36%
Nif	4731.2	0.255 mg/L	0.0029	0.510 mg/L	0.0058	1.14%
Pbf	1894.4	0.501 mg/L	0.0089	1.00 mg/L	0.018	1.77%
Sbf	465.8	0.287 mg/L	0.0013	0.574 mg/L	0.0027	0.47%
Sef	498.4	0.504 mg/L	0.0068	1.01 mg/L	0.014	1.36%
Tlf	1105.4	0.503 mg/L	0.0079	1.01 mg/L	0.016	1.58%
Vf	79260.3	0.551 mg/L	0.0002	1.10 mg/L	0.000	0.03%
Znf	21054.3	0.552 mg/L	0.0008	1.10 mg/L	0.002	0.14%

Sequence No.: 59  
 Sample ID: 2805070239\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 71  
 Date Collected: 5/18/2008 21:14:59  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805070239\_2X

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: 2805070239\_2X

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	357466.0	87.1 %	%	0.05			0.06%
Yr	412909.6	84.2 %	%	0.12			0.14%
Agf	71.7	0.00030 mg/L	mg/L	0.000260	0.00059 mg/L	0.000520	87.50%
Alf	17.9	0.00176 mg/L	mg/L	0.000799	0.00353 mg/L	0.001598	45.28%
Ast	66.2	0.0413 mg/L	mg/L	0.00066	0.0827 mg/L	0.00131	1.59%
B_t	41066.1	1.62 mg/L	mg/L	0.001	3.23 mg/L	0.001	0.04%
Baf	523.7	0.0131 mg/L	mg/L	0.00013	0.0262 mg/L	0.00026	1.00%
Bef	-960.1	-0.00036 mg/L	mg/L	0.000009	-0.00071 mg/L	0.000017	2.44%
Caf	4786977.8	155 mg/L	mg/L	0.1	310 mg/L	0.2	0.07%
Cdf	1.4	-0.00051 mg/L	mg/L	0.000005	-0.00101 mg/L	0.000010	0.95%
Cof	-4.1	-0.00029 mg/L	mg/L	0.000349	-0.00057 mg/L	0.000697	121.79%
Crf	7181.3	0.175 mg/L	mg/L	0.0007	0.351 mg/L	0.0014	0.41%
Cuf	561.0	0.00188 mg/L	mg/L	0.000068	0.00377 mg/L	0.000135	3.59%
Fef	29.7	0.00237 mg/L	mg/L	0.000424	0.00474 mg/L	0.000848	17.89%
Kf	21911.3	16.6 mg/L	mg/L	0.12	33.2 mg/L	0.24	0.74%
Mgf	1566709.5	72.6 mg/L	mg/L	0.12	145 mg/L	0.2	0.16%
Mnf	3430.7	0.00560 mg/L	mg/L	0.000015	0.0112 mg/L	0.00003	0.27%
Mof	109.4	0.0110 mg/L	mg/L	0.00011	0.0220 mg/L	0.00022	0.99%
Naf	2205286.9	410 mg/L	mg/L	1.0	819 mg/L	1.9	0.24%
Nif	-0.8	-0.00004 mg/L	mg/L	0.000091	-0.00009 mg/L	0.000182	208.57%
Pbf	-36.2	-0.00957 mg/L	mg/L	0.003014	-0.0191 mg/L	0.00603	31.48%
Sbf	13.8	0.00813 mg/L	mg/L	0.002663	0.0163 mg/L	0.00533	32.77%
Sef	-28.5	-0.0285 mg/L	mg/L	0.00973	-0.0571 mg/L	0.01946	34.10%
Tlf	22.9	0.0105 mg/L	mg/L	0.00344	0.0209 mg/L	0.00689	32.88%
Vf	2093.2	0.0152 mg/L	mg/L	0.00009	0.0303 mg/L	0.00018	0.61%
Znf	4.4	0.00009 mg/L	mg/L	0.000093	0.00018 mg/L	0.000186	105.75%

Sequence No.: 60  
 Sample ID: 2805070239MS\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 72  
 Date Collected: 5/18/2008 21:19:18  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805070239MS\_2X

Analyte Back Pressure Flow  
 All 215.0 kPa 0.65 L/min

## Mean Data: 2805070239MS\_2X

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	358762.9	87.4 %	0.14			0.16%
Yr	405009.0	82.6 %	2.95			3.57%
Ag†	62113.6	0.257 mg/L	0.0038	0.515 mg/L	0.0075	1.46%
Al†	9469.0	1.13 mg/L	0.060	2.25 mg/L	0.119	5.29%
As†	923.9	0.576 mg/L	0.0036	1.15 mg/L	0.007	0.63%
B_†	47802.9	1.88 mg/L	0.038	3.76 mg/L	0.077	2.04%
Ba†	20781.8	0.521 mg/L	0.0071	1.04 mg/L	0.014	1.37%
Be†	65667.6	0.0264 mg/L	0.00043	0.0527 mg/L	0.00085	1.62%
Cat	5621482.2	182 mg/L	8.3	364 mg/L	16.6	4.56%
Cd†	2286.0	0.101 mg/L	0.0003	0.203 mg/L	0.0005	0.25%
Cof	7529.4	0.524 mg/L	0.0022	1.05 mg/L	0.004	0.42%
Crt	28308.7	0.691 mg/L	0.0099	1.38 mg/L	0.020	1.43%
Cut	155768.8	0.522 mg/L	0.0071	1.04 mg/L	0.014	1.35%
Fet	28765.6	2.30 mg/L	0.124	4.59 mg/L	0.247	5.38%
K†	37738.9	28.6 mg/L	1.13	57.2 mg/L	2.26	3.96%
Mgt	1801733.4	83.5 mg/L	3.89	167 mg/L	7.8	4.67%
Mnt	129209.9	0.271 mg/L	0.0043	0.541 mg/L	0.0086	1.59%
Mof	5182.7	0.520 mg/L	0.0030	1.04 mg/L	0.006	0.57%
Naf	2379403.4	442 mg/L	20.3	884 mg/L	40.6	4.60%
Nit	4613.8	0.248 mg/L	0.0017	0.497 mg/L	0.0033	0.67%
Pb†	1899.9	0.502 mg/L	0.0072	1.00 mg/L	0.014	1.43%
Sb†	425.2	0.265 mg/L	0.0006	0.530 mg/L	0.0012	0.22%
Se†	496.1	0.502 mg/L	0.0031	1.00 mg/L	0.006	0.62%
Tlt	1112.2	0.506 mg/L	0.0028	1.01 mg/L	0.006	0.56%
V†	77792.0	0.536 mg/L	0.0094	1.07 mg/L	0.019	1.76%
Znt	20605.8	0.540 mg/L	0.0090	1.08 mg/L	0.018	1.66%

Sequence No.: 61  
 Sample ID: 2805070239MSD\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 73  
 Date Collected: 5/18/2008 21:23:01  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805070239MSD\_2X

Analyte Back Pressure Flow  
 All 215.0 kPa 0.65 L/min

## Mean Data: 2805070239MSD\_2X

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	361557.9	88.1 %		0.25			0.29%
Yr	410083.5	83.6 %		0.59			0.71%
Agf	61957.0	0.257 mg/L		0.0006	0.514 mg/L	0.0011	0.22%
Alf	9287.9	1.10 mg/L		0.005	2.21 mg/L	0.010	0.46%
Asf	906.2	0.565 mg/L		0.0025	1.13 mg/L	0.005	0.45%
B_f	47331.2	1.86 mg/L		0.004	3.72 mg/L	0.008	0.22%
Baf	20770.2	0.521 mg/L		0.0021	1.04 mg/L	0.004	0.41%
Bef	65524.2	0.0263 mg/L		0.00008	0.0526 mg/L	0.00017	0.31%
Caf	5412767.3	175 mg/L		0.5	350 mg/L	1.1	0.30%
Cdf	2256.2	0.100 mg/L		0.0000	0.200 mg/L	0.0000	0.01%
Cof	7446.4	0.518 mg/L		0.0014	1.04 mg/L	0.003	0.28%
Crt	28280.1	0.690 mg/L		0.0001	1.38 mg/L	0.000	0.01%
Cut	154918.5	0.519 mg/L		0.0002	1.04 mg/L	0.000	0.04%
Fef	27940.3	2.23 mg/L		0.018	4.46 mg/L	0.036	0.81%
Kf	36863.4	27.9 mg/L		0.22	55.9 mg/L	0.45	0.80%
Mgf	1731668.2	80.2 mg/L		0.11	160 mg/L	0.2	0.14%
Mnf	128777.2	0.270 mg/L		0.0009	0.539 mg/L	0.0019	0.34%
Mof	5125.2	0.514 mg/L		0.0014	1.03 mg/L	0.003	0.27%
Naf	2269218.1	422 mg/L		0.3	843 mg/L	0.6	0.07%
Nif	4557.9	0.245 mg/L		0.0003	0.491 mg/L	0.0006	0.11%
Pbf	1876.0	0.496 mg/L		0.0004	0.992 mg/L	0.0009	0.09%
Sbf	423.4	0.264 mg/L		0.0019	0.528 mg/L	0.0037	0.70%
Sef	498.5	0.504 mg/L		0.0105	1.01 mg/L	0.021	2.08%
Tlf	1103.5	0.502 mg/L		0.0020	1.00 mg/L	0.004	0.39%
Vf	77683.1	0.535 mg/L		0.0013	1.07 mg/L	0.003	0.25%
Znf	20568.1	0.539 mg/L		0.0014	1.08 mg/L	0.003	0.27%

Sequence No.: 62  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 5/18/2008 21:26:44  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

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 Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

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 Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	380871.7	92.8 %	0.22			0.23%
Yr	422261.6	86.1 %	0.40			0.46%
Ag†	243921.3	1.01 mg/L	0.000	1.01 mg/L	0.000	0.05%
	QC value within limits for Ag Recovery = 100.95%					
Al†	47797.9	5.60 mg/L	0.011	5.60 mg/L	0.011	0.20%
	QC value greater than the upper limit for Al Recovery = 111.90%					
As†	7712.9	4.81 mg/L	0.018	4.81 mg/L	0.018	0.37%
	QC value within limits for As Recovery = 96.24%					
B_†	66362.5	2.57 mg/L	0.012	2.57 mg/L	0.012	0.48%
	QC value within limits for B_ Recovery = 102.70%					
Ba†	204159.1	5.12 mg/L	0.012	5.12 mg/L	0.012	0.24%
	QC value within limits for Ba Recovery = 102.33%					
Be†	5363545.3	2.15 mg/L	0.011	2.15 mg/L	0.011	0.53%
	QC value within limits for Be Recovery = 107.33%					
Ca†	1489716.7	48.2 mg/L	0.83	48.2 mg/L	0.83	1.71%
	QC value within limits for Ca Recovery = 96.36%					
Cd†	43765.6	2.01 mg/L	0.001	2.01 mg/L	0.001	0.06%
	QC value within limits for Cd Recovery = 100.58%					
Co†	77664.3	5.41 mg/L	0.004	5.41 mg/L	0.004	0.08%
	QC value within limits for Co Recovery = 108.11%					
Cr†	218387.7	5.33 mg/L	0.023	5.33 mg/L	0.023	0.43%
	QC value within limits for Cr Recovery = 106.62%					
Cu†	1519099.0	5.09 mg/L	0.005	5.09 mg/L	0.005	0.10%
	QC value within limits for Cu Recovery = 101.85%					
Fe†	56107.4	4.48 mg/L	0.005	4.48 mg/L	0.005	0.11%
	QC value less than the lower limit for Fe Recovery = 89.62%					
K†	73106.0	55.4 mg/L	0.34	55.4 mg/L	0.34	0.61%
	QC value greater than the upper limit for K Recovery = 110.77%					
Mg†	1022623.3	47.4 mg/L	0.05	47.4 mg/L	0.05	0.12%
	QC value within limits for Mg Recovery = 94.75%					
Mn†	2491854.5	5.25 mg/L	0.010	5.25 mg/L	0.010	0.19%
	QC value within limits for Mn Recovery = 105.06%					
Mo†	51112.4	5.13 mg/L	0.012	5.13 mg/L	0.012	0.23%
	QC value within limits for Mo Recovery = 102.62%					
Na†	274868.6	51.1 mg/L	0.07	51.1 mg/L	0.07	0.13%
	QC value within limits for Na Recovery = 102.12%					
Ni†	97905.9	5.27 mg/L	0.013	5.27 mg/L	0.013	0.25%
	QC value within limits for Ni Recovery = 105.45%					
Pb†	19918.5	5.27 mg/L	0.023	5.27 mg/L	0.023	0.44%
	QC value within limits for Pb Recovery = 105.31%					
Sb†	7828.3	4.87 mg/L	0.020	4.87 mg/L	0.020	0.42%
	QC value within limits for Sb Recovery = 97.44%					
Se†	4967.9	4.98 mg/L	0.010	4.98 mg/L	0.010	0.20%
	QC value within limits for Se Recovery = 99.63%					
Tl†	11593.6	5.29 mg/L	0.005	5.29 mg/L	0.005	0.09%
	QC value within limits for Tl Recovery = 105.74%					
V†	75552.9	5.19 mg/L	0.005	5.19 mg/L	0.005	0.10%
	QC value within limits for V Recovery = 103.88%					
Zn†	200690.8	5.24 mg/L	0.002	5.24 mg/L	0.002	0.04%
	QC value within limits for Zn Recovery = 104.86%					

QC Failed. Retry.

-----  
 Sequence No.: 63  
 Sample ID: CCV

Autosampler Location: 4  
 Date Collected: 5/18/2008 21:28:56

Analyst:  
Initial Sample Wt:  
Dilution:

Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

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Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

-----  
Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	378579.5	92.3 %	0.02			0.02%
Yr	420795.2	85.8 %	1.14			1.33%
Ag†	243840.9	1.01 mg/L	0.001	1.01 mg/L	0.001	0.09%
	QC value within limits for Ag Recovery = 100.91%					
Al†	47858.4	5.60 mg/L	0.013	5.60 mg/L	0.013	0.24%
	QC value greater than the upper limit for Al Recovery = 112.03%					
As†	7721.2	4.82 mg/L	0.017	4.82 mg/L	0.017	0.35%
	QC value within limits for As Recovery = 96.35%					
B_†	67035.7	2.59 mg/L	0.001	2.59 mg/L	0.001	0.05%
	QC value within limits for B_ Recovery = 103.77%					
Ba†	204955.7	5.14 mg/L	0.008	5.14 mg/L	0.008	0.15%
	QC value within limits for Ba Recovery = 102.73%					
Be†	5327065.5	2.13 mg/L	0.001	2.13 mg/L	0.001	0.04%
	QC value within limits for Be Recovery = 106.60%					
Ca†	1480657.8	47.9 mg/L	0.49	47.9 mg/L	0.49	1.02%
	QC value within limits for Ca Recovery = 95.78%					
Cd†	43850.8	2.02 mg/L	0.003	2.02 mg/L	0.003	0.17%
	QC value within limits for Cd Recovery = 100.78%					
Co†	77847.3	5.42 mg/L	0.008	5.42 mg/L	0.008	0.15%
	QC value within limits for Co Recovery = 108.37%					
Cr†	218989.2	5.35 mg/L	0.023	5.35 mg/L	0.023	0.43%
	QC value within limits for Cr Recovery = 106.91%					
Cu†	1516485.1	5.08 mg/L	0.007	5.08 mg/L	0.007	0.14%
	QC value within limits for Cu Recovery = 101.67%					
Fe†	54657.6	4.37 mg/L	0.007	4.37 mg/L	0.007	0.17%
	QC value less than the lower limit for Fe Recovery = 87.30%					
K†	72808.7	55.2 mg/L	0.24	55.2 mg/L	0.24	0.43%
	QC value greater than the upper limit for K Recovery = 110.32%					
Mg†	1008016.8	46.7 mg/L	0.01	46.7 mg/L	0.01	0.03%
	QC value within limits for Mg Recovery = 93.40%					
Mn†	2497875.7	5.27 mg/L	0.001	5.27 mg/L	0.001	0.02%
	QC value within limits for Mn Recovery = 105.31%					
Mo†	51378.8	5.16 mg/L	0.008	5.16 mg/L	0.008	0.15%
	QC value within limits for Mo Recovery = 103.15%					
Na†	270847.7	50.3 mg/L	0.27	50.3 mg/L	0.27	0.54%
	QC value within limits for Na Recovery = 100.63%					
Ni†	98028.5	5.28 mg/L	0.010	5.28 mg/L	0.010	0.20%
	QC value within limits for Ni Recovery = 105.58%					
Pb†	19890.5	5.26 mg/L	0.002	5.26 mg/L	0.002	0.04%
	QC value within limits for Pb Recovery = 105.16%					
Sb†	7839.2	4.88 mg/L	0.008	4.88 mg/L	0.008	0.16%
	QC value within limits for Sb Recovery = 97.58%					
Se†	4972.0	4.99 mg/L	0.016	4.99 mg/L	0.016	0.32%
	QC value within limits for Se Recovery = 99.71%					
Tl†	11607.0	5.29 mg/L	0.012	5.29 mg/L	0.012	0.23%
	QC value within limits for Tl Recovery = 105.87%					
V†	757123.9	5.20 mg/L	0.002	5.20 mg/L	0.002	0.04%
	QC value within limits for V Recovery = 104.10%					
Zn†	200765.6	5.24 mg/L	0.001	5.24 mg/L	0.001	0.03%
	QC value within limits for Zn Recovery = 104.90%					

QC Failed. Retry.

Sequence No.: 64  
Sample ID: CCV  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 4  
Date Collected: 5/18/2008 21:31:01  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

## Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

## Mean Data: CCV

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sca	382076.2	93.1	%	0.52			0.56%
Yr	421790.6	86.0	%	0.94			1.09%
Ag†	243258.0	1.01	mg/L	0.001	1.01	mg/L	0.05%
	QC value within limits for Ag Recovery = 100.68%						
Al†	48113.8	5.63	mg/L	0.006	5.63	mg/L	0.11%
	QC value greater than the upper limit for Al Recovery = 112.66%						
As†	7720.4	4.82	mg/L	0.040	4.82	mg/L	0.83%
	QC value within limits for As Recovery = 96.34%						
B_†	67220.6	2.60	mg/L	0.001	2.60	mg/L	0.04%
	QC value within limits for B_ Recovery = 104.06%						
Ba†	203505.0	5.10	mg/L	0.021	5.10	mg/L	0.42%
	QC value within limits for Ba Recovery = 102.00%						
Be†	5347071.8	2.14	mg/L	0.019	2.14	mg/L	0.89%
	QC value within limits for Be Recovery = 107.00%						
Ca†	1447428.8	46.8	mg/L	0.51	46.8	mg/L	1.09%
	QC value within limits for Ca Recovery = 93.63%						
Cd†	43593.4	2.00	mg/L	0.005	2.00	mg/L	0.27%
	QC value within limits for Cd Recovery = 100.17%						
Co†	77570.9	5.40	mg/L	0.026	5.40	mg/L	0.47%
	QC value within limits for Co Recovery = 107.98%						
Cr†	218707.3	5.34	mg/L	0.020	5.34	mg/L	0.37%
	QC value within limits for Cr Recovery = 106.77%						
Cu†	1510032.5	5.06	mg/L	0.006	5.06	mg/L	0.12%
	QC value within limits for Cu Recovery = 101.24%						
Fe†	55210.8	4.41	mg/L	0.018	4.41	mg/L	0.42%
	QC value less than the lower limit for Fe Recovery = 88.18%						
K†	73504.5	55.7	mg/L	0.07	55.7	mg/L	0.13%
	QC value greater than the upper limit for K Recovery = 111.37%						
Mg†	1008815.8	46.7	mg/L	0.13	46.7	mg/L	0.28%
	QC value within limits for Mg Recovery = 93.47%						
Mn†	2487387.5	5.24	mg/L	0.017	5.24	mg/L	0.33%
	QC value within limits for Mn Recovery = 104.87%						
Mo†	51194.3	5.14	mg/L	0.012	5.14	mg/L	0.23%
	QC value within limits for Mo Recovery = 102.78%						
Na†	269825.3	50.1	mg/L	0.00	50.1	mg/L	0.01%
	QC value within limits for Na Recovery = 100.25%						
Ni†	97755.2	5.26	mg/L	0.006	5.26	mg/L	0.11%
	QC value within limits for Ni Recovery = 105.29%						
Pb†	19926.8	5.27	mg/L	0.035	5.27	mg/L	0.66%
	QC value within limits for Pb Recovery = 105.35%						
Sb†	7809.7	4.86	mg/L	0.018	4.86	mg/L	0.36%
	QC value within limits for Sb Recovery = 97.21%						
Se†	4954.9	4.97	mg/L	0.026	4.97	mg/L	0.52%
	QC value within limits for Se Recovery = 99.37%						
Tl†	11595.0	5.29	mg/L	0.025	5.29	mg/L	0.47%
	QC value within limits for Tl Recovery = 105.75%						
V†	753857.7	5.18	mg/L	0.010	5.18	mg/L	0.20%
	QC value within limits for V Recovery = 103.65%						
Zn†	200269.5	5.23	mg/L	0.005	5.23	mg/L	0.10%
	QC value within limits for Zn Recovery = 104.64%						
QC Failed. Continue with analysis.							

Sequence No.: 65  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 5/18/2008 21:34:44  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	405916.0	98.9	%	0.69			0.70%
Yr	435931.1	88.9	%	0.07			0.08%
Ag†	61.8	0.00026	mg/L	0.000048	0.00026 mg/L	0.000048	18.74%
	QC value within limits for Ag Recovery = Not calculated						
Al†	-4.6	-0.00061	mg/L	0.001108	-0.00061 mg/L	0.001108	181.57%
	QC value within limits for Al Recovery = Not calculated						
As†	20.1	0.0126	mg/L	0.00044	0.0126 mg/L	0.00044	3.46%
	QC value within limits for As Recovery = Not calculated						
B_†	1658.0	0.0653	mg/L	0.00138	0.0653 mg/L	0.00138	2.11%
	QC value greater than the upper limit for B_ Recovery = Not calculated						
Ba†	0.3	0.00001	mg/L	0.000030	0.00001 mg/L	0.000030	443.63%
	QC value within limits for Ba Recovery = Not calculated						
Be†	112.7	0.00005	mg/L	0.000005	0.00005 mg/L	0.000005	11.09%
	QC value within limits for Be Recovery = Not calculated						
Ca†	-82.2	-0.00266	mg/L	0.000778	-0.00266 mg/L	0.000778	29.28%
	QC value within limits for Ca Recovery = Not calculated						
Cd†	6.9	0.00015	mg/L	0.000102	0.00015 mg/L	0.000102	67.20%
	QC value within limits for Cd Recovery = Not calculated						
Co†	-2.2	-0.00016	mg/L	0.000186	-0.00016 mg/L	0.000186	119.42%
	QC value within limits for Co Recovery = Not calculated						
Cr†	0.1	0.00000	mg/L	0.000023	0.00000 mg/L	0.000023	852.96%
	QC value within limits for Cr Recovery = Not calculated						
Cu†	57.9	0.00019	mg/L	0.000078	0.00019 mg/L	0.000078	40.00%
	QC value within limits for Cu Recovery = Not calculated						
Fe†	22.3	0.00178	mg/L	0.000391	0.00178 mg/L	0.000391	22.02%
	QC value within limits for Fe Recovery = Not calculated						
K†	120.3	0.0911	mg/L	0.01444	0.0911 mg/L	0.01444	15.85%
	QC value within limits for K Recovery = Not calculated						
Mg†	62.1	0.00288	mg/L	0.000199	0.00288 mg/L	0.000199	6.90%
	QC value within limits for Mg Recovery = Not calculated						
Mn†	-126.9	-0.00027	mg/L	0.000014	-0.00027 mg/L	0.000014	5.38%
	QC value within limits for Mn Recovery = Not calculated						
Mo†	15.6	0.00156	mg/L	0.000382	0.00156 mg/L	0.000382	24.44%
	QC value within limits for Mo Recovery = Not calculated						
Na†	721.4	0.134	mg/L	0.0003	0.134 mg/L	0.0003	0.25%
	QC value within limits for Na Recovery = Not calculated						
Ni†	6.7	0.00036	mg/L	0.000146	0.00036 mg/L	0.000146	40.24%
	QC value within limits for Ni Recovery = Not calculated						
Pb†	-1.1	-0.00029	mg/L	0.000030	-0.00029 mg/L	0.000030	10.41%
	QC value within limits for Pb Recovery = Not calculated						
Sb†	6.6	0.00406	mg/L	0.001906	0.00406 mg/L	0.001906	46.93%
	QC value within limits for Sb Recovery = Not calculated						
Se†	2.8	0.00283	mg/L	0.003876	0.00283 mg/L	0.003876	136.89%
	QC value within limits for Se Recovery = Not calculated						
Tl†	3.3	0.00147	mg/L	0.000048	0.00147 mg/L	0.000048	3.23%
	QC value within limits for Tl Recovery = Not calculated						
V†	19.7	0.00014	mg/L	0.000031	0.00014 mg/L	0.000031	23.04%
	QC value within limits for V Recovery = Not calculated						
Zn†	12.1	0.00032	mg/L	0.000109	0.00032 mg/L	0.000109	34.62%
	QC value within limits for Zn Recovery = Not calculated						

QC Failed. Retry.

Sequence No.: 66  
 Sample ID: CCB

Autosampler Location: 0  
 Date Collected: 5/18/2008 21:37:17



Analyst:  
Initial Sample Wt:  
Dilution:

Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

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Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

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Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	407877.0	99.4	%	0.33				0.33%
Yr	436307.8	89.0	%	0.98				1.10%
Ag†	106.8	0.00044	mg/L	0.000069	0.00044	mg/L	0.000069	15.63%
	QC value within limits for Ag Recovery = Not calculated							
Al†	59.7	0.00718	mg/L	0.003082	0.00718	mg/L	0.003082	42.91%
	QC value within limits for Al Recovery = Not calculated							
As†	10.2	0.00637	mg/L	0.001400	0.00637	mg/L	0.001400	21.99%
	QC value within limits for As Recovery = Not calculated							
B_†	1326.2	0.0522	mg/L	0.00111	0.0522	mg/L	0.00111	2.13%
	QC value greater than the upper limit for B Recovery = Not calculated							
Ba†	3.2	0.00008	mg/L	0.000045	0.00008	mg/L	0.000045	55.63%
	QC value within limits for Ba Recovery = Not calculated							
Be†	130.6	0.00005	mg/L	0.000011	0.00005	mg/L	0.000011	21.39%
	QC value within limits for Be Recovery = Not calculated							
Ca†	-84.3	-0.00272	mg/L	0.001757	-0.00272	mg/L	0.001757	64.48%
	QC value within limits for Ca Recovery = Not calculated							
Cd†	-1.2	-0.00014	mg/L	0.000014	-0.00014	mg/L	0.000014	9.50%
	QC value within limits for Cd Recovery = Not calculated							
Co†	0.9	0.00006	mg/L	0.000032	0.00006	mg/L	0.000032	52.13%
	QC value within limits for Co Recovery = Not calculated							
Cr†	-3.1	-0.00008	mg/L	0.000020	-0.00008	mg/L	0.000020	26.70%
	QC value within limits for Cr Recovery = Not calculated							
Cu†	0.5	0.00000	mg/L	0.000204	0.00000	mg/L	0.000204	>999.9%
	QC value within limits for Cu Recovery = Not calculated							
Fe†	19.9	0.00159	mg/L	0.000037	0.00159	mg/L	0.000037	2.33%
	QC value within limits for Fe Recovery = Not calculated							
K†	80.4	0.0609	mg/L	0.02028	0.0609	mg/L	0.02028	33.32%
	QC value within limits for K Recovery = Not calculated							
Mg†	54.0	0.00250	mg/L	0.000483	0.00250	mg/L	0.000483	19.30%
	QC value within limits for Mg Recovery = Not calculated							
Mn†	-150.9	-0.00032	mg/L	0.000009	-0.00032	mg/L	0.000009	2.83%
	QC value within limits for Mn Recovery = Not calculated							
Mo†	10.3	0.00103	mg/L	0.000222	0.00103	mg/L	0.000222	21.48%
	QC value within limits for Mo Recovery = Not calculated							
Na†	718.8	0.134	mg/L	0.0042	0.134	mg/L	0.0042	3.18%
	QC value within limits for Na Recovery = Not calculated							
Ni†	6.6	0.00036	mg/L	0.000191	0.00036	mg/L	0.000191	53.82%
	QC value within limits for Ni Recovery = Not calculated							
Pb†	-2.5	-0.00066	mg/L	0.000463	-0.00066	mg/L	0.000463	70.06%
	QC value within limits for Pb Recovery = Not calculated							
Sb†	4.5	0.00279	mg/L	0.000418	0.00279	mg/L	0.000418	14.97%
	QC value within limits for Sb Recovery = Not calculated							
Se†	3.4	0.00344	mg/L	0.003059	0.00344	mg/L	0.003059	89.00%
	QC value within limits for Se Recovery = Not calculated							
Tl†	3.8	0.00173	mg/L	0.001470	0.00173	mg/L	0.001470	85.13%
	QC value within limits for Tl Recovery = Not calculated							
V†	19.1	0.00013	mg/L	0.000109	0.00013	mg/L	0.000109	83.28%
	QC value within limits for V Recovery = Not calculated							
Zn†	0.6	0.00001	mg/L	0.000104	0.00001	mg/L	0.000104	832.43%
	QC value within limits for Zn Recovery = Not calculated							

QC Failed. Retry.

Sequence No.: 67  
Sample ID: CCB  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 0  
Date Collected: 5/18/2008 21:39:50  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

## Nebulizer Parameters: CCB

Analyte Back Pressure Flow  
 All 214.0 kPa 0.65 L/min

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	405992.5	98.9	%	0.81			0.82%
Yr	435261.5	88.8	%	1.45			1.64%
Ag†	124.6	0.00052	mg/L	0.000139	0.00052 mg/L	0.000139	27.05%
	QC value within limits for Ag Recovery = Not calculated						
Al†	53.2	0.00641	mg/L	0.000389	0.00641 mg/L	0.000389	6.06%
	QC value within limits for Al Recovery = Not calculated						
As†	10.3	0.00645	mg/L	0.000446	0.00645 mg/L	0.000446	6.92%
	QC value within limits for As Recovery = Not calculated						
B_†	1163.6	0.0458	mg/L	0.00048	0.0458 mg/L	0.00048	1.04%
	QC value greater than the upper limit for B_ Recovery = Not calculated						
Ba†	-0.5	-0.00001	mg/L	0.000036	-0.00001 mg/L	0.000036	294.34%
	QC value within limits for Ba Recovery = Not calculated						
Be†	177.7	0.00007	mg/L	0.000004	0.00007 mg/L	0.000004	6.15%
	QC value within limits for Be Recovery = Not calculated						
Ca†	-123.2	-0.00398	mg/L	0.002079	-0.00398 mg/L	0.002079	52.19%
	QC value within limits for Ca Recovery = Not calculated						
Cd†	1.1	-0.00004	mg/L	0.000137	-0.00004 mg/L	0.000137	383.97%
	QC value within limits for Cd Recovery = Not calculated						
Co†	-0.2	-0.00002	mg/L	0.000276	-0.00002 mg/L	0.000276	>999.9%
	QC value within limits for Co Recovery = Not calculated						
Cr†	-9.4	-0.00023	mg/L	0.000146	-0.00023 mg/L	0.000146	63.59%
	QC value within limits for Cr Recovery = Not calculated						
Cu†	18.4	0.00006	mg/L	0.000268	0.00006 mg/L	0.000268	436.43%
	QC value within limits for Cu Recovery = Not calculated						
Fe†	14.6	0.00117	mg/L	0.000412	0.00117 mg/L	0.000412	35.33%
	QC value within limits for Fe Recovery = Not calculated						
K†	6.2	0.00467	mg/L	0.034591	0.00467 mg/L	0.034591	740.96%
	QC value within limits for K Recovery = Not calculated						
Mg†	49.5	0.00230	mg/L	0.000649	0.00230 mg/L	0.000649	28.26%
	QC value within limits for Mg Recovery = Not calculated						
Mn†	-163.2	-0.00034	mg/L	0.000001	-0.00034 mg/L	0.000001	0.17%
	QC value within limits for Mn Recovery = Not calculated						
Mo†	6.4	0.00064	mg/L	0.000027	0.00064 mg/L	0.000027	4.30%
	QC value within limits for Mo Recovery = Not calculated						
Na†	710.3	0.132	mg/L	0.0015	0.132 mg/L	0.0015	1.17%
	QC value within limits for Na Recovery = Not calculated						
Ni†	11.0	0.00059	mg/L	0.000228	0.00059 mg/L	0.000228	38.59%
	QC value within limits for Ni Recovery = Not calculated						
Pb†	-3.2	-0.00084	mg/L	0.000766	-0.00084 mg/L	0.000766	90.74%
	QC value within limits for Pb Recovery = Not calculated						
Sb†	0.8	0.00051	mg/L	0.002055	0.00051 mg/L	0.002055	400.05%
	QC value within limits for Sb Recovery = Not calculated						
Se†	3.2	0.00324	mg/L	0.005144	0.00324 mg/L	0.005144	158.57%
	QC value within limits for Se Recovery = Not calculated						
Tl†	2.1	0.00094	mg/L	0.000079	0.00094 mg/L	0.000079	8.34%
	QC value within limits for Tl Recovery = Not calculated						
V†	21.5	0.00015	mg/L	0.000134	0.00015 mg/L	0.000134	91.40%
	QC value within limits for V Recovery = Not calculated						
Zn†	1.4	0.00003	mg/L	0.000116	0.00003 mg/L	0.000116	355.85%
	QC value within limits for Zn Recovery = Not calculated						

QC Failed. Continue with analysis.

Sequence No.: 68  
 Sample ID: MCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 5/18/2008 21:43:13  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	214.0 kPa	0.65 L/min

Mean Data: MCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	389714.0	95.0 %		0.58			0.61%
Yr	419838.3	85.6 %		0.56			0.66%
Ag†	123028.9	0.509 mg/L		0.0010	0.509 mg/L	0.0010	0.19%
	QC value within limits for Ag Recovery = 101.84%						
Al†	24226.9	2.84 mg/L		0.002	2.84 mg/L	0.002	0.08%
	QC value greater than the upper limit for Al Recovery = 113.42%						
As†	3855.3	2.41 mg/L		0.018	2.41 mg/L	0.018	0.77%
	QC value within limits for As Recovery = 96.22%						
B_†	33499.4	1.30 mg/L		0.004	1.30 mg/L	0.004	0.30%
	QC value within limits for B_ Recovery = 103.67%						
Ba†	104284.4	2.61 mg/L		0.012	2.61 mg/L	0.012	0.47%
	QC value within limits for Ba Recovery = 104.54%						
Be†	2709711.4	1.08 mg/L		0.004	1.08 mg/L	0.004	0.39%
	QC value within limits for Be Recovery = 108.45%						
Ca†	752795.7	24.3 mg/L		0.01	24.3 mg/L	0.01	0.05%
	QC value within limits for Ca Recovery = 97.39%						
Cd†	21961.5	1.01 mg/L		0.006	1.01 mg/L	0.006	0.55%
	QC value within limits for Cd Recovery = 100.97%						
Co†	39789.1	2.77 mg/L		0.014	2.77 mg/L	0.014	0.49%
	QC value greater than the upper limit for Co Recovery = 110.78%						
Cr†	111576.7	2.72 mg/L		0.000	2.72 mg/L	0.000	0.01%
	QC value within limits for Cr Recovery = 108.94%						
Cu†	773944.1	2.59 mg/L		0.005	2.59 mg/L	0.005	0.18%
	QC value within limits for Cu Recovery = 103.78%						
Fe†	28565.8	2.28 mg/L		0.001	2.28 mg/L	0.001	0.06%
	QC value within limits for Fe Recovery = 91.25%						
K†	36290.1	27.5 mg/L		0.10	27.5 mg/L	0.10	0.35%
	QC value within limits for K Recovery = 109.97%						
Mg†	521827.4	24.2 mg/L		0.03	24.2 mg/L	0.03	0.14%
	QC value within limits for Mg Recovery = 96.70%						
Mn†	1286999.5	2.71 mg/L		0.005	2.71 mg/L	0.005	0.17%
	QC value within limits for Mn Recovery = 108.52%						
Mo†	26042.4	2.61 mg/L		0.018	2.61 mg/L	0.018	0.68%
	QC value within limits for Mo Recovery = 104.57%						
Na†	133532.0	24.8 mg/L		0.04	24.8 mg/L	0.04	0.15%
	QC value within limits for Na Recovery = 99.22%						
Ni†	50330.2	2.71 mg/L		0.007	2.71 mg/L	0.007	0.26%
	QC value within limits for Ni Recovery = 108.42%						
Pb†	10264.4	2.71 mg/L		0.017	2.71 mg/L	0.017	0.63%
	QC value within limits for Pb Recovery = 108.53%						
Sb†	3965.1	2.47 mg/L		0.019	2.47 mg/L	0.019	0.77%
	QC value within limits for Sb Recovery = 98.70%						
Se†	2494.9	2.50 mg/L		0.027	2.50 mg/L	0.027	1.08%
	QC value within limits for Se Recovery = 100.08%						
Tl†	6004.5	2.74 mg/L		0.020	2.74 mg/L	0.020	0.72%
	QC value within limits for Tl Recovery = 109.53%						
V†	380296.1	2.61 mg/L		0.005	2.61 mg/L	0.005	0.19%
	QC value within limits for V Recovery = 104.58%						
Zn†	101983.3	2.66 mg/L		0.002	2.66 mg/L	0.002	0.09%
	QC value within limits for Zn Recovery = 106.56%						
	QC Failed. Retry.						

Sequence No.: 69  
 Sample ID: MCV

Autosampler Location: 5  
 Date Collected: 5/18/2008 21:45:23

Analyst:  
Initial Sample Wt:  
Dilution:

Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

## Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	215.0 kPa	0.65 L/min

## Mean Data: MCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	386873.0	94.3 %	%	0.10			0.11%
Yr	416584.5	85.0 %	%	1.07			1.26%
Ag†	122726.1	0.508 mg/L	mg/L	0.0020	0.508 mg/L	0.0020	0.38%
	QC value within limits for Ag Recovery = 101.59%						
Al†	24736.9	2.90 mg/L	mg/L	0.068	2.90 mg/L	0.068	2.33%
	QC value greater than the upper limit for Al Recovery = 115.87%						
As†	3879.6	2.42 mg/L	mg/L	0.013	2.42 mg/L	0.013	0.54%
	QC value within limits for As Recovery = 96.82%						
B_†	33830.7	1.31 mg/L	mg/L	0.007	1.31 mg/L	0.007	0.51%
	QC value within limits for B_ Recovery = 104.71%						
Ba†	104515.7	2.62 mg/L	mg/L	0.003	2.62 mg/L	0.003	0.13%
	QC value within limits for Ba Recovery = 104.77%						
Be†	2705471.6	1.08 mg/L	mg/L	0.002	1.08 mg/L	0.002	0.15%
	QC value within limits for Be Recovery = 108.28%						
Ca†	744164.4	24.1 mg/L	mg/L	0.03	24.1 mg/L	0.03	0.14%
	QC value within limits for Ca Recovery = 96.27%						
Cd†	22047.5	1.01 mg/L	mg/L	0.004	1.01 mg/L	0.004	0.39%
	QC value within limits for Cd Recovery = 101.35%						
Co†	39547.2	2.75 mg/L	mg/L	0.011	2.75 mg/L	0.011	0.41%
	QC value greater than the upper limit for Co Recovery = 110.10%						
Cr†	111181.2	2.71 mg/L	mg/L	0.014	2.71 mg/L	0.014	0.51%
	QC value within limits for Cr Recovery = 108.56%						
Cu†	775590.1	2.60 mg/L	mg/L	0.013	2.60 mg/L	0.013	0.52%
	QC value within limits for Cu Recovery = 104.00%						
Fe†	28191.5	2.25 mg/L	mg/L	0.032	2.25 mg/L	0.032	1.42%
	QC value within limits for Fe Recovery = 90.06%						
K†	37366.6	28.3 mg/L	mg/L	0.58	28.3 mg/L	0.58	2.05%
	QC value greater than the upper limit for K Recovery = 113.24%						
Mg†	516944.4	23.9 mg/L	mg/L	0.49	23.9 mg/L	0.49	2.03%
	QC value within limits for Mg Recovery = 95.79%						
Mn†	1286301.7	2.71 mg/L	mg/L	0.007	2.71 mg/L	0.007	0.24%
	QC value within limits for Mn Recovery = 108.46%						
Mo†	26126.3	2.62 mg/L	mg/L	0.014	2.62 mg/L	0.014	0.53%
	QC value within limits for Mo Recovery = 104.91%						
Na†	134608.9	25.0 mg/L	mg/L	0.55	25.0 mg/L	0.55	2.20%
	QC value within limits for Na Recovery = 100.02%						
Ni†	50173.7	2.70 mg/L	mg/L	0.008	2.70 mg/L	0.008	0.29%
	QC value within limits for Ni Recovery = 108.08%						
Pb†	10282.6	2.72 mg/L	mg/L	0.012	2.72 mg/L	0.012	0.45%
	QC value within limits for Pb Recovery = 108.73%						
Sb†	3973.6	2.47 mg/L	mg/L	0.009	2.47 mg/L	0.009	0.37%
	QC value within limits for Sb Recovery = 98.92%						
Se†	2509.8	2.52 mg/L	mg/L	0.006	2.52 mg/L	0.006	0.26%
	QC value within limits for Se Recovery = 100.67%						
Tl†	6044.0	2.76 mg/L	mg/L	0.015	2.76 mg/L	0.015	0.56%
	QC value greater than the upper limit for Tl Recovery = 110.24%						
V†	380186.4	2.61 mg/L	mg/L	0.008	2.61 mg/L	0.008	0.29%
	QC value within limits for V Recovery = 104.55%						
Zn†	101798.0	2.66 mg/L	mg/L	0.003	2.66 mg/L	0.003	0.10%
	QC value within limits for Zn Recovery = 106.37%						

QC Failed. Continue with analysis.

Sequence No.: 70  
 Sample ID: 2805060319\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 74  
 Date Collected: 5/18/2008 21:49:04  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: 2805060319\_2X

Analyte Back Pressure Flow  
 All 215.0 kPa 0.65 L/min

Mean Data: 2805060319\_2X

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	348558.5	84.9 %	%	0.01			0.01%
Yr	395775.8	80.7 %	%	0.20			0.25%
Agf	-71.9	-0.00029 mg/L	mg/L	0.000487	-0.00059 mg/L	0.000975	165.63%
Alf	112.6	0.0131 mg/L	mg/L	0.00031	0.0261 mg/L	0.00062	2.38%
Ast	140.0	0.0874 mg/L	mg/L	0.00016	0.175 mg/L	0.0003	0.18%
B_f	113563.0	4.47 mg/L	mg/L	0.005	8.94 mg/L	0.010	0.12%
Bat	242.5	0.00608 mg/L	mg/L	0.000060	0.0122 mg/L	0.00012	0.99%
Bef	-1310.9	-0.00042 mg/L	mg/L	0.000008	-0.00083 mg/L	0.000016	1.96%
Caf	8243864.9	267 mg/L	mg/L	2.1	533 mg/L	4.3	0.80%
Cdt	19.4	-0.00030 mg/L	mg/L	0.000117	-0.00059 mg/L	0.000234	39.63%
Cot	-6.1	-0.00042 mg/L	mg/L	0.000376	-0.00085 mg/L	0.000751	88.61%
Crt	27335.9	0.667 mg/L	mg/L	0.0020	1.33 mg/L	0.004	0.29%
Cuf	778.8	0.00262 mg/L	mg/L	0.000180	0.00524 mg/L	0.000361	6.88%
Fef	99.3	0.00793 mg/L	mg/L	0.000415	0.0159 mg/L	0.00083	5.23%
Kf	12437.4	9.42 mg/L	mg/L	0.042	18.8 mg/L	0.08	0.45%
Mgt	1865549.6	86.4 mg/L	mg/L	0.65	173 mg/L	1.3	0.76%
Mnf	8237.6	0.0154 mg/L	mg/L	0.00000	0.0309 mg/L	0.00001	0.02%
Mof	151.5	0.0152 mg/L	mg/L	0.00005	0.0304 mg/L	0.00009	0.30%
Naf	3125332.0	581 mg/L	mg/L	2.1	1160 mg/L	4.2	0.36%
Nif	65.4	0.00352 mg/L	mg/L	0.000973	0.00704 mg/L	0.001946	27.64%
Pbf	-37.0	-0.00979 mg/L	mg/L	0.000346	-0.0196 mg/L	0.00069	3.53%
Sbf	30.2	0.0169 mg/L	mg/L	0.00010	0.0338 mg/L	0.00020	0.59%
Sef	-20.3	-0.0203 mg/L	mg/L	0.00732	-0.0406 mg/L	0.01465	36.08%
Tlf	38.8	0.0178 mg/L	mg/L	0.00209	0.0356 mg/L	0.00419	11.75%
Vf	5388.8	0.0401 mg/L	mg/L	0.00002	0.0802 mg/L	0.00004	0.05%
Znf	90.1	0.00234 mg/L	mg/L	0.000040	0.00468 mg/L	0.000079	1.70%

Sequence No.: 71  
 Sample ID: 2805060320\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 75  
 Date Collected: 5/18/2008 21:53:27  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Nebulizer Parameters: 2805060320\_2X

Analyte Back Pressure Flow  
 All 215.0 kPa 0.65 L/min

## Mean Data: 2805060320\_2X

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	350316.3	85.4	%	0.16			0.19%
Yr	394692.9	80.5	%	0.89			1.11%
Agf	-25.2	-0.00009	mg/L	0.000198	-0.00017 mg/L	0.000397	226.96%
Alf	839.8	0.101	mg/L	0.0040	0.202 mg/L	0.0081	3.98%
Ast	119.9	0.0748	mg/L	0.00025	0.150 mg/L	0.0005	0.33%
B_f	105582.2	4.16	mg/L	0.003	8.31 mg/L	0.006	0.07%
Baf	411.4	0.0103	mg/L	0.00002	0.0206 mg/L	0.00004	0.19%
Bef	-1329.7	-0.00043	mg/L	0.000053	-0.00086 mg/L	0.000106	12.37%
Caf	7866862.8	254	mg/L	1.0	509 mg/L	2.0	0.39%
Cdf	21.2	-0.00004	mg/L	0.000262	-0.00008 mg/L	0.000525	688.10%
Cof	-4.1	-0.00029	mg/L	0.000003	-0.00057 mg/L	0.000006	1.00%
Crf	26207.1	0.640	mg/L	0.0008	1.28 mg/L	0.002	0.13%
Cuf	1087.2	0.00365	mg/L	0.000190	0.00731 mg/L	0.000381	5.21%
Fef	574.6	0.0459	mg/L	0.00014	0.0918 mg/L	0.00028	0.30%
Kf	13939.6	10.6	mg/L	0.10	21.1 mg/L	0.20	0.97%
Mgf	1795510.1	83.2	mg/L	0.26	166 mg/L	0.5	0.31%
Mnf	15197.2	0.0302	mg/L	0.00004	0.0603 mg/L	0.00008	0.14%
Mof	108.6	0.0109	mg/L	0.00030	0.0218 mg/L	0.00061	2.78%
Naf	2909552.2	540	mg/L	0.9	1080 mg/L	1.8	0.17%
Nif	18.4	0.00099	mg/L	0.000226	0.00198 mg/L	0.000453	22.83%
Pbf	-16.7	-0.00441	mg/L	0.002773	-0.00881 mg/L	0.005546	62.92%
Sbf	33.3	0.0190	mg/L	0.00304	0.0379 mg/L	0.00607	16.01%
Sef	-38.6	-0.0385	mg/L	0.01285	-0.0769 mg/L	0.02569	33.40%
Tlf	29.7	0.0138	mg/L	0.00548	0.0277 mg/L	0.01096	39.59%
Vf	5998.5	0.0441	mg/L	0.00024	0.0883 mg/L	0.00049	0.55%
Znf	275.8	0.00724	mg/L	0.000048	0.0145 mg/L	0.00010	0.66%

Sequence No.: 80  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 5/18/2008 22:31:38  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte Back Pressure Flow  
 All 215.0 kPa 0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	378551.3	92.3	%	0.14			0.15%
Yr	387396.0	79.0	%	1.07			1.35%
Ag†	243025.2	1.01	mg/L	0.003	1.01 mg/L	0.003	0.27%
	QC value within limits for Ag		Recovery = 100.57%				
Al†	50391.5	5.91	mg/L	0.011	5.91 mg/L	0.011	0.18%
	QC value greater than the upper limit for Al		Recovery = 118.19%				
As†	7621.5	4.76	mg/L	0.011	4.76 mg/L	0.011	0.24%
	QC value within limits for As		Recovery = 95.10%				
B_†	66200.3	2.56	mg/L	0.020	2.56 mg/L	0.020	0.79%
	QC value within limits for B_		Recovery = 102.46%				
Ba†	204306.6	5.12	mg/L	0.009	5.12 mg/L	0.009	0.18%
	QC value within limits for Ba		Recovery = 102.40%				
Be†	5320430.4	2.13	mg/L	0.016	2.13 mg/L	0.016	0.74%
	QC value within limits for Be		Recovery = 106.47%				
Ca†	1426320.9	46.1	mg/L	0.72	46.1 mg/L	0.72	1.55%
	QC value within limits for Ca		Recovery = 92.26%				
Cd†	43475.4	2.00	mg/L	0.007	2.00 mg/L	0.007	0.37%
	QC value within limits for Cd		Recovery = 99.93%				
Co†	76823.5	5.35	mg/L	0.023	5.35 mg/L	0.023	0.43%
	QC value within limits for Co		Recovery = 106.94%				
Cr†	217639.2	5.31	mg/L	0.015	5.31 mg/L	0.015	0.28%
	QC value within limits for Cr		Recovery = 106.25%				
Cu†	1512962.9	5.07	mg/L	0.004	5.07 mg/L	0.004	0.08%
	QC value within limits for Cu		Recovery = 101.43%				
Fe†	51421.3	4.11	mg/L	0.012	4.11 mg/L	0.012	0.30%
	QC value less than the lower limit for Fe		Recovery = 82.13%				
K†	76270.6	57.8	mg/L	0.08	57.8 mg/L	0.08	0.14%
	QC value greater than the upper limit for K		Recovery = 115.57%				
Mg†	959503.4	44.5	mg/L	0.08	44.5 mg/L	0.08	0.19%
	QC value less than the lower limit for Mg		Recovery = 88.90%				
Mn†	2479545.8	5.23	mg/L	0.012	5.23 mg/L	0.012	0.22%
	QC value within limits for Mn		Recovery = 104.54%				
Mo†	51002.9	5.12	mg/L	0.020	5.12 mg/L	0.020	0.39%
	QC value within limits for Mo		Recovery = 102.40%				
Na†	258695.5	48.1	mg/L	0.10	48.1 mg/L	0.10	0.21%
	QC value within limits for Na		Recovery = 96.11%				
Ni†	97414.6	5.25	mg/L	0.019	5.25 mg/L	0.019	0.37%
	QC value within limits for Ni		Recovery = 104.92%				
Pb†	19717.0	5.21	mg/L	0.011	5.21 mg/L	0.011	0.20%
	QC value within limits for Pb		Recovery = 104.24%				
Sb†	7713.9	4.80	mg/L	0.017	4.80 mg/L	0.017	0.36%
	QC value within limits for Sb		Recovery = 96.02%				
Se†	4904.6	4.92	mg/L	0.019	4.92 mg/L	0.019	0.38%
	QC value within limits for Se		Recovery = 98.35%				
Tl†	11501.6	5.25	mg/L	0.018	5.25 mg/L	0.018	0.34%
	QC value within limits for Tl		Recovery = 104.91%				
V†	752376.4	5.17	mg/L	0.025	5.17 mg/L	0.025	0.47%
	QC value within limits for V		Recovery = 103.44%				
Zn†	199741.0	5.22	mg/L	0.023	5.22 mg/L	0.023	0.45%
	QC value within limits for Zn		Recovery = 104.36%				
	QC Failed. Retry.						

Sequence No.: 81  
 Sample ID: CCV

Autosampler Location: 4  
 Date Collected: 5/18/2008 22:33:50

Analyst:  
Initial Sample Wt:  
Dilution:

Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

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Nebulizer Parameters: CCV

Analyte                      Back Pressure              Flow  
All                              215.0 kPa                      0.65 L/min

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Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	373827.0	91.1 %	%	0.45			0.50%
Yr	391551.7	79.9 %	%	0.10			0.12%
Ag†	242888.3	1.01 mg/L	mg/L	0.001	1.01 mg/L	0.001	0.15%
	QC value within limits for Ag Recovery = 100.51%						
Al†	50410.8	5.91 mg/L	mg/L	0.005	5.91 mg/L	0.005	0.09%
	QC value greater than the upper limit for Al Recovery = 118.23%						
As†	7673.2	4.79 mg/L	mg/L	0.022	4.79 mg/L	0.022	0.47%
	QC value within limits for As Recovery = 95.75%						
B_†	66609.9	2.58 mg/L	mg/L	0.004	2.58 mg/L	0.004	0.17%
	QC value within limits for B_ Recovery = 103.10%						
Ba†	205361.2	5.15 mg/L	mg/L	0.016	5.15 mg/L	0.016	0.30%
	QC value within limits for Ba Recovery = 102.93%						
Be†	5353387.2	2.14 mg/L	mg/L	0.032	2.14 mg/L	0.032	1.49%
	QC value within limits for Be Recovery = 107.13%						
Ca†	1426521.7	46.1 mg/L	mg/L	0.36	46.1 mg/L	0.36	0.78%
	QC value within limits for Ca Recovery = 92.27%						
Cd†	43516.5	2.00 mg/L	mg/L	0.005	2.00 mg/L	0.005	0.26%
	QC value within limits for Cd Recovery = 100.00%						
Co†	76649.9	5.33 mg/L	mg/L	0.007	5.33 mg/L	0.007	0.12%
	QC value within limits for Co Recovery = 106.70%						
Cr†	217075.5	5.30 mg/L	mg/L	0.000	5.30 mg/L	0.000	0.01%
	QC value within limits for Cr Recovery = 105.97%						
Cu†	1515117.4	5.08 mg/L	mg/L	0.019	5.08 mg/L	0.019	0.37%
	QC value within limits for Cu Recovery = 101.58%						
Fe†	52584.7	4.20 mg/L	mg/L	0.032	4.20 mg/L	0.032	0.75%
	QC value less than the lower limit for Fe Recovery = 83.99%						
K†	75643.7	57.3 mg/L	mg/L	0.09	57.3 mg/L	0.09	0.16%
	QC value greater than the upper limit for K Recovery = 114.62%						
Mg†	976112.1	45.2 mg/L	mg/L	0.09	45.2 mg/L	0.09	0.21%
	QC value within limits for Mg Recovery = 90.44%						
Mn†	2484355.2	5.24 mg/L	mg/L	0.007	5.24 mg/L	0.007	0.14%
	QC value within limits for Mn Recovery = 104.74%						
Mo†	50990.4	5.12 mg/L	mg/L	0.017	5.12 mg/L	0.017	0.33%
	QC value within limits for Mo Recovery = 102.37%						
Na†	260110.2	48.3 mg/L	mg/L	0.06	48.3 mg/L	0.06	0.12%
	QC value within limits for Na Recovery = 96.64%						
Ni†	97462.9	5.25 mg/L	mg/L	0.003	5.25 mg/L	0.003	0.06%
	QC value within limits for Ni Recovery = 104.97%						
Pb†	19849.5	5.25 mg/L	mg/L	0.030	5.25 mg/L	0.030	0.58%
	QC value within limits for Pb Recovery = 104.94%						
Sb†	7781.8	4.84 mg/L	mg/L	0.024	4.84 mg/L	0.024	0.50%
	QC value within limits for Sb Recovery = 96.87%						
Se†	4935.9	4.95 mg/L	mg/L	0.043	4.95 mg/L	0.043	0.87%
	QC value within limits for Se Recovery = 98.98%						
Tl†	11627.2	5.30 mg/L	mg/L	0.029	5.30 mg/L	0.029	0.54%
	QC value within limits for Tl Recovery = 106.05%						
V†	752528.2	5.17 mg/L	mg/L	0.012	5.17 mg/L	0.012	0.24%
	QC value within limits for V Recovery = 103.46%						
Zn†	199539.3	5.21 mg/L	mg/L	0.014	5.21 mg/L	0.014	0.26%
	QC value within limits for Zn Recovery = 104.26%						
	QC Failed. Retry.						

Sequence No.: 82  
Sample ID: CCV  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 4  
Date Collected: 5/18/2008 22:35:55  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:



Nebulizer Parameters: CCV

Analyte Back Pressure Flow  
 All 215.0 kPa 0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	375528.5	91.5 %	0.10			0.11%
Yr	384280.4	78.4 %	0.24			0.30%
Ag†	243307.3	1.01 mg/L	0.001	1.01 mg/L	0.001	0.14%
	QC value within limits for Ag Recovery = 100.68%					
Al†	50860.3	5.97 mg/L	0.001	5.97 mg/L	0.001	0.01%
	QC value greater than the upper limit for Al Recovery = 119.32%					
As†	7662.4	4.78 mg/L	0.016	4.78 mg/L	0.016	0.34%
	QC value within limits for As Recovery = 95.61%					
B_†	67265.6	2.60 mg/L	0.000	2.60 mg/L	0.000	0.00%
	QC value within limits for B_ Recovery = 104.13%					
Ba†	205496.0	5.15 mg/L	0.003	5.15 mg/L	0.003	0.06%
	QC value within limits for Ba Recovery = 103.00%					
Be†	5293410.1	2.12 mg/L	0.016	2.12 mg/L	0.016	0.74%
	QC value within limits for Be Recovery = 105.93%					
Ca†	1415752.5	45.8 mg/L	0.01	45.8 mg/L	0.01	0.02%
	QC value within limits for Ca Recovery = 91.58%					
Cd†	43577.6	2.00 mg/L	0.001	2.00 mg/L	0.001	0.04%
	QC value within limits for Cd Recovery = 100.15%					
Co†	76835.3	5.35 mg/L	0.018	5.35 mg/L	0.018	0.34%
	QC value within limits for Co Recovery = 106.96%					
Cr†	217248.8	5.30 mg/L	0.017	5.30 mg/L	0.017	0.33%
	QC value within limits for Cr Recovery = 106.06%					
Cu†	1514865.9	5.08 mg/L	0.004	5.08 mg/L	0.004	0.08%
	QC value within limits for Cu Recovery = 101.56%					
Fe†	51379.2	4.10 mg/L	0.024	4.10 mg/L	0.024	0.59%
	QC value less than the lower limit for Fe Recovery = 82.06%					
K†	76738.1	58.1 mg/L	0.10	58.1 mg/L	0.10	0.17%
	QC value greater than the upper limit for K Recovery = 116.27%					
Mg†	961199.5	44.5 mg/L	0.12	44.5 mg/L	0.12	0.27%
	QC value less than the lower limit for Mg Recovery = 89.06%					
Mn†	2488627.1	5.25 mg/L	0.001	5.25 mg/L	0.001	0.01%
	QC value within limits for Mn Recovery = 104.92%					
Mo†	51026.6	5.12 mg/L	0.004	5.12 mg/L	0.004	0.08%
	QC value within limits for Mo Recovery = 102.44%					
Na†	259078.1	48.1 mg/L	0.03	48.1 mg/L	0.03	0.06%
	QC value within limits for Na Recovery = 96.25%					
Ni†	97624.4	5.26 mg/L	0.009	5.26 mg/L	0.009	0.17%
	QC value within limits for Ni Recovery = 105.15%					
Pb†	19849.7	5.25 mg/L	0.011	5.25 mg/L	0.011	0.21%
	QC value within limits for Pb Recovery = 104.94%					
Sb†	7781.6	4.84 mg/L	0.022	4.84 mg/L	0.022	0.46%
	QC value within limits for Sb Recovery = 96.87%					
Se†	4919.6	4.93 mg/L	0.012	4.93 mg/L	0.012	0.24%
	QC value within limits for Se Recovery = 98.65%					
Tl†	11578.9	5.28 mg/L	0.019	5.28 mg/L	0.019	0.36%
	QC value within limits for Tl Recovery = 105.61%					
V†	753957.0	5.18 mg/L	0.001	5.18 mg/L	0.001	0.01%
	QC value within limits for V Recovery = 103.66%					
Zn†	200174.1	5.23 mg/L	0.004	5.23 mg/L	0.004	0.08%
	QC value within limits for Zn Recovery = 104.59%					

QC Failed. Continue with analysis.

Sequence No.: 83  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 5/18/2008 22:39:37  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	215.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	398624.3	97.2	%	0.56			0.57%
Yr	393534.9	80.3	%	0.90			1.12%
Ag†	36.3	0.00015	mg/L	0.000109	0.00015 mg/L	0.000109	72.17%
	QC value within limits for Ag Recovery = Not calculated						
Al†	5.7	0.00063	mg/L	0.000520	0.00063 mg/L	0.000520	82.97%
	QC value within limits for Al Recovery = Not calculated						
As†	12.5	0.00780	mg/L	0.000264	0.00780 mg/L	0.000264	3.39%
	QC value within limits for As Recovery = Not calculated						
B_†	1784.4	0.0703	mg/L	0.00153	0.0703 mg/L	0.00153	2.17%
	QC value greater than the upper limit for B Recovery = Not calculated						
Ba†	-1.2	-0.00003	mg/L	0.000023	-0.00003 mg/L	0.000023	74.42%
	QC value within limits for Ba Recovery = Not calculated						
Be†	208.5	0.00008	mg/L	0.000001	0.00008 mg/L	0.000001	1.29%
	QC value within limits for Be Recovery = Not calculated						
Ca†	-150.4	-0.00486	mg/L	0.000187	-0.00486 mg/L	0.000187	3.85%
	QC value within limits for Ca Recovery = Not calculated						
Cd†	7.7	0.00025	mg/L	0.000085	0.00025 mg/L	0.000085	33.49%
	QC value within limits for Cd Recovery = Not calculated						
Co†	-3.8	-0.00027	mg/L	0.000046	-0.00027 mg/L	0.000046	17.16%
	QC value within limits for Co Recovery = Not calculated						
Cr†	112.3	0.00274	mg/L	0.000084	0.00274 mg/L	0.000084	3.08%
	QC value within limits for Cr Recovery = Not calculated						
Cu†	45.1	0.00015	mg/L	0.000141	0.00015 mg/L	0.000141	93.47%
	QC value within limits for Cu Recovery = Not calculated						
Fe†	30.3	0.00242	mg/L	0.000007	0.00242 mg/L	0.000007	0.29%
	QC value within limits for Fe Recovery = Not calculated						
K†	96.6	0.0732	mg/L	0.04830	0.0732 mg/L	0.04830	65.98%
	QC value within limits for K Recovery = Not calculated						
Mg†	58.1	0.00270	mg/L	0.000247	0.00270 mg/L	0.000247	9.17%
	QC value within limits for Mg Recovery = Not calculated						
Mn†	-127.4	-0.00027	mg/L	0.000007	-0.00027 mg/L	0.000007	2.53%
	QC value within limits for Mn Recovery = Not calculated						
Mo†	16.1	0.00162	mg/L	0.000062	0.00162 mg/L	0.000062	3.84%
	QC value within limits for Mo Recovery = Not calculated						
Na†	451.1	0.0838	mg/L	0.00200	0.0838 mg/L	0.00200	2.38%
	QC value within limits for Na Recovery = Not calculated						
Ni†	12.2	0.00066	mg/L	0.000101	0.00066 mg/L	0.000101	15.41%
	QC value within limits for Ni Recovery = Not calculated						
Pb†	7.6	0.00202	mg/L	0.001121	0.00202 mg/L	0.001121	55.56%
	QC value within limits for Pb Recovery = Not calculated						
Sb†	7.1	0.00438	mg/L	0.001410	0.00438 mg/L	0.001410	32.18%
	QC value within limits for Sb Recovery = Not calculated						
Se†	5.2	0.00520	mg/L	0.005843	0.00520 mg/L	0.005843	112.41%
	QC value within limits for Se Recovery = Not calculated						
Tl†	10.3	0.00468	mg/L	0.003721	0.00468 mg/L	0.003721	79.51%
	QC value within limits for Tl Recovery = Not calculated						
V†	18.8	0.00014	mg/L	0.000047	0.00014 mg/L	0.000047	32.76%
	QC value within limits for V Recovery = Not calculated						
Zn†	7.0	0.00018	mg/L	0.000022	0.00018 mg/L	0.000022	12.17%
	QC value within limits for Zn Recovery = Not calculated						
QC Failed. Retry.							

Sequence No.: 84  
 Sample ID: CCB

Autosampler Location: 0  
 Date Collected: 5/18/2008 22:42:10

Analyst:  
Initial Sample Wt:  
Dilution:

Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte Back Pressure Flow  
All 215.0 kPa 0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	403093.2	98.2 %	%	0.41			0.42%
Yr	396352.6	80.8 %	%	0.76			0.94%
Agf	53.6	0.00022 mg/L	mg/L	0.000216	0.00022 mg/L	0.000216	97.16%
	QC value within limits for Ag Recovery = Not calculated						
Alf	55.2	0.00664 mg/L	mg/L	0.000015	0.00664 mg/L	0.000015	0.23%
	QC value within limits for Al Recovery = Not calculated						
Asf	4.9	0.00307 mg/L	mg/L	0.000586	0.00307 mg/L	0.000586	19.10%
	QC value within limits for As Recovery = Not calculated						
B_f	1435.7	0.0565 mg/L	mg/L	0.00132	0.0565 mg/L	0.00132	2.34%
	QC value greater than the upper limit for B_ Recovery = Not calculated						
Baf	0.6	0.00002 mg/L	mg/L	0.000085	0.00002 mg/L	0.000085	560.04%
	QC value within limits for Ba Recovery = Not calculated						
Bef	184.4	0.00007 mg/L	mg/L	0.000031	0.00007 mg/L	0.000031	41.59%
	QC value within limits for Be Recovery = Not calculated						
CAF	-176.7	-0.00571 mg/L	mg/L	0.000051	-0.00571 mg/L	0.000051	0.90%
	QC value within limits for Ca Recovery = Not calculated						
Cdf	0.5	-0.00002 mg/L	mg/L	0.000249	-0.00002 mg/L	0.000249	>999.9%
	QC value within limits for Cd Recovery = Not calculated						
Cof	0.9	0.00007 mg/L	mg/L	0.000159	0.00007 mg/L	0.000159	243.82%
	QC value within limits for Co Recovery = Not calculated						
Crf	99.7	0.00243 mg/L	mg/L	0.000164	0.00243 mg/L	0.000164	6.73%
	QC value within limits for Cr Recovery = Not calculated						
Cuf	-11.7	-0.00004 mg/L	mg/L	0.000075	-0.00004 mg/L	0.000075	192.54%
	QC value within limits for Cu Recovery = Not calculated						
Fef	22.5	0.00180 mg/L	mg/L	0.000274	0.00180 mg/L	0.000274	15.24%
	QC value within limits for Fe Recovery = Not calculated						
Kf	-5.6	-0.00427 mg/L	mg/L	0.017438	-0.00427 mg/L	0.017438	408.80%
	QC value within limits for K Recovery = Not calculated						
Mgf	55.9	0.00259 mg/L	mg/L	0.000160	0.00259 mg/L	0.000160	6.18%
	QC value within limits for Mg Recovery = Not calculated						
Mnf	-161.7	-0.00034 mg/L	mg/L	0.000022	-0.00034 mg/L	0.000022	6.39%
	QC value within limits for Mn Recovery = Not calculated						
Mof	10.4	0.00104 mg/L	mg/L	0.000523	0.00104 mg/L	0.000523	50.27%
	QC value within limits for Mo Recovery = Not calculated						
Naf	416.1	0.0773 mg/L	mg/L	0.00985	0.0773 mg/L	0.00985	12.74%
	QC value within limits for Na Recovery = Not calculated						
Nif	8.5	0.00046 mg/L	mg/L	0.000030	0.00046 mg/L	0.000030	6.50%
	QC value within limits for Ni Recovery = Not calculated						
Pbf	-2.1	-0.00056 mg/L	mg/L	0.000362	-0.00056 mg/L	0.000362	64.76%
	QC value within limits for Pb Recovery = Not calculated						
Sbf	4.0	0.00247 mg/L	mg/L	0.001350	0.00247 mg/L	0.001350	54.65%
	QC value within limits for Sb Recovery = Not calculated						
Sef	3.0	0.00298 mg/L	mg/L	0.002032	0.00298 mg/L	0.002032	68.18%
	QC value within limits for Se Recovery = Not calculated						
Tlf	6.2	0.00281 mg/L	mg/L	0.000262	0.00281 mg/L	0.000262	9.31%
	QC value within limits for Tl Recovery = Not calculated						
Vf	12.5	0.00010 mg/L	mg/L	0.000051	0.00010 mg/L	0.000051	52.38%
	QC value within limits for V Recovery = Not calculated						
Znf	-1.3	-0.00004 mg/L	mg/L	0.000118	-0.00004 mg/L	0.000118	320.34%
	QC value within limits for Zn Recovery = Not calculated						
QC Failed. Retry.							

Sequence No.: 85  
Sample ID: CCB  
Analyst:  
Initial Sample Wt:  
Dilution:

Autosampler Location: 0  
Date Collected: 5/18/2008 22:44:43  
Data Type: Original  
Initial Sample Vol:  
Sample Prep Vol:

## Nebulizer Parameters: CCB

Analyte Back Pressure Flow  
 All 215.0 kPa 0.65 L/min

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	400857.1	97.7	%	0.49			0.50%
Yr	396086.1	80.8	%	0.67			0.83%
Ag†	57.8	0.00024	mg/L	0.000167	0.00024 mg/L	0.000167	69.81%
	QC value within limits for Ag Recovery = Not calculated						
Al†	37.2	0.00448	mg/L	0.000701	0.00448 mg/L	0.000701	15.64%
	QC value within limits for Al Recovery = Not calculated						
As†	4.1	0.00256	mg/L	0.001101	0.00256 mg/L	0.001101	43.00%
	QC value within limits for As Recovery = Not calculated						
B_†	1261.1	0.0497	mg/L	0.00112	0.0497 mg/L	0.00112	2.26%
	QC value greater than the upper limit for B_ Recovery = Not calculated						
Ba†	0.1	0.00000	mg/L	0.000070	0.00000 mg/L	0.000070	>999.9%
	QC value within limits for Ba Recovery = Not calculated						
Be†	113.9	0.00005	mg/L	0.000019	0.00005 mg/L	0.000019	41.92%
	QC value within limits for Be Recovery = Not calculated						
Ca†	-189.5	-0.00613	mg/L	0.001538	-0.00613 mg/L	0.001538	25.09%
	QC value within limits for Ca Recovery = Not calculated						
Cd†	1.3	0.00002	mg/L	0.000081	0.00002 mg/L	0.000081	341.08%
	QC value within limits for Cd Recovery = Not calculated						
Co†	-0.8	-0.00005	mg/L	0.000470	-0.00005 mg/L	0.000470	882.77%
	QC value within limits for Co Recovery = Not calculated						
Cr†	84.9	0.00207	mg/L	0.000184	0.00207 mg/L	0.000184	8.87%
	QC value within limits for Cr Recovery = Not calculated						
Cu†	-62.2	-0.00021	mg/L	0.000051	-0.00021 mg/L	0.000051	24.70%
	QC value within limits for Cu Recovery = Not calculated						
Fe†	24.8	0.00198	mg/L	0.000027	0.00198 mg/L	0.000027	1.36%
	QC value within limits for Fe Recovery = Not calculated						
K†	-4.9	-0.00371	mg/L	0.017345	-0.00371 mg/L	0.017345	467.86%
	QC value within limits for K Recovery = Not calculated						
Mg†	57.5	0.00267	mg/L	0.000024	0.00267 mg/L	0.000024	0.90%
	QC value within limits for Mg Recovery = Not calculated						
Mn†	-175.6	-0.00037	mg/L	0.000011	-0.00037 mg/L	0.000011	3.07%
	QC value within limits for Mn Recovery = Not calculated						
Mo†	3.9	0.00039	mg/L	0.000098	0.00039 mg/L	0.000098	25.34%
	QC value within limits for Mo Recovery = Not calculated						
Na†	382.5	0.0711	mg/L	0.00600	0.0711 mg/L	0.00600	8.44%
	QC value within limits for Na Recovery = Not calculated						
Ni†	1.8	0.00010	mg/L	0.000241	0.00010 mg/L	0.000241	243.54%
	QC value within limits for Ni Recovery = Not calculated						
Pb†	0.2	0.00006	mg/L	0.000598	0.00006 mg/L	0.000598	921.63%
	QC value within limits for Pb Recovery = Not calculated						
Sb†	3.3	0.00203	mg/L	0.001052	0.00203 mg/L	0.001052	51.90%
	QC value within limits for Sb Recovery = Not calculated						
Se†	1.7	0.00169	mg/L	0.000518	0.00169 mg/L	0.000518	30.63%
	QC value within limits for Se Recovery = Not calculated						
Tl†	6.7	0.00303	mg/L	0.000501	0.00303 mg/L	0.000501	16.55%
	QC value within limits for Tl Recovery = Not calculated						
V†	14.4	0.00011	mg/L	0.000001	0.00011 mg/L	0.000001	1.21%
	QC value within limits for V Recovery = Not calculated						
Zn†	-0.0	0.00000	mg/L	0.000078	0.00000 mg/L	0.000078	>999.9%
	QC value within limits for Zn Recovery = Not calculated						

QC Failed. Continue with analysis.

TITLE \_\_\_\_\_

From Page No. \_\_\_\_\_

LOG#	CLIENT	SX 20	MIX	VOLUME	COMMENTS
	2007	05-15-08	JRF		HNO <sub>3</sub> 100452 ml HCl 100442 2.5ml LCS/SPIKE
BLANK	DIGEST				
LCS					
LCS D					ME 0709009
2805060278	PERMULUM MP	M-48	HR	50ml → 50ml	ME 08030013 → 0.5ml ME 0802001 → 0.25ul
↓ MS		↓			
↓ MSD					
2805060290		M-23			MPL ME 0804005 → 0.5ul
↓ 4S		↓			
↓ MSD					
2805060277		PL-54			HOT BLOCK #2 TEMP
0279		PL-37			INI: 110/96
0280		PL-71			FIN: OVERTITE
0281		PL-72			
0282		PL-73			
0291		M-44			
0293		FB-1			
0294		MD-1			
0303		MD-5			
0305		PL-123			
0311		PL-124			
0312		PL-125			
0313		PL-126			
0314		PL-127			
0315		PL-128			
0316		PL-129			
0317		PL-131			
0318		PL-132			
	2007	05-15-08	JRF		
	DIGEST				

To Page No. \_\_\_\_\_

Witnessed & Understood by me.

Date

Invented by

Date

100  
Recorded by

From Page No. \_\_\_\_\_

LOG#	CURRENT	SKED	MIX	VOLUMES	COMMENTS
	200.7 DIGEST	05-15-08	JRF		HNO <sub>3</sub> 100452 ml HCl 100448 2.5ml LCS / SPIKE
BLANK LCS LCSD					ME 0709009 ME 08030013 → 0.5ul ME 0802001 → 0.25ul
2805070236 ↓ MS ↓ MSD	KERRMCLGEE-PP ↓	I-S ↓	ADR	50ml → 50ml	
2805070239 ↓ MS ↓ MSD	KERRMCLGEE-ND	I-B ↓			
2805060319 ↓ 0320		M-95 M-96			
2805070224 2805070225		I-O I-P			
0226		I-H			
0227		I-U			
0228		I-T			
0229		I-Q			
0230		I-E			
0231		I-N			
0232		I-C			
0233		I-M			
0234		I-D			
0235		I-L			
0237		I-R			
0238		I-K			
0240		I-A			
0241					
	200.7 DIGEST	05-15-08	JRF		

To Page No. \_\_\_\_\_

Witnessed & Understood by me.

Date

Invented by

Date

101  
Recorded by

**Standard  
Preparation  
Worksheet  
&  
Certificate of  
Analysis**

Reagent Lot #  
 HNO3 R# 100450 HCL R# 100446  
 IS = Yttrium(ME0709008)0.75mL + Scandium (ME0710007)0.5mL to 1000mL w/ 2% HNO3

Standards	Lot #	Exp. Date	Dilution
Calibration	ME0712001✓	(12/01/08)	1:10 ME0801001
(Prepare daily)	ME0712001✓	(12/01/08)	1:10
CCV/MCV/ECV	ME0710008✓	(04/17/09)	CCV/ECV 1:20 ME0801002
(Prepare daily)			MCV 1:40 ME0801003
Spike/LCS	ME0709009✓	(03/11/09)	1:100 ME0801005
(Prepare daily)	ME0801004✓	(07/11/08)	1:100
	ME0803001✓	(08/13/08)	1:50
MRL	ME0801007✓	(07/11/08)	1:100 ME0801008
(Prepare daily)			
ICSA	ME0712003✓	(06/01/08)	
ICSAB	ME0712004✓	(06/01/08)	
QCS	ME0610005✓	(04/10/08)	
1ppm Check	ME0801010✓	(07/11/08)	
Linearity	ME0805001	(11/05/08)	
Method Sr/Ti/Sn/SiO2			
Calibration	ME0801012	(07/11/08)	
CCV/ECV	ME0803011	(09/30/08)	
QCS	ME0801012	(07/11/08)	
Spike/LCS	ME0803012	(09/30/08)	1:100
(Prepare daily)			
MRL	ME0801014	(07/11/08)	1:100
(Prepare daily)			
Method Li			
Std/ICV/MRL	ME0801009	(07/11/08)	1:1000, 200, 40, 10
(Prepare daily)			
QCS	ME0801011	(07/11/08)	1:10
(Prepare daily)			
LCS/Spike	ME0801011	(07/11/08)	1:50
(Prepare daily)			
ccv	ME0801011	(07/11/08)	1:40
(Prepare daily)			

From May 2005: the calibration std for **103** should be ME0505010,011 not ME0408010



dilution should be 1:20 and 1:40 not 1:200 and 1:400. 1/10/2006.

Initial:

STE

Date:

12/1/07

### METALS STANDARD DOCUMENTATION

**Standard:** ICPCalibration Stock Std #1  
**Date Received/Prepped:** 12/1/2007  
**Date Expired:** 12/1/2008  
**Manufacturer:** Inorganic Ventures  
**Matrix:** 5% Nitric Acid  
**Amount:** 500 mL

**ME #:** 0712001  
**By:** STE  
**Lot #:** A2-MEB243151  
**Certificate:** Y  
**NIST SRM:** Varies  
**Storage:** Room Temp

Component	Comment	Conc. Unit:
Ca	(P/N MWH-ICAP-CAL-1)	1000 ug/ml
K		1000 ug/ml
Mg		1000 ug/ml
Na		1000 ug/ml
Al		100 ug/ml
As		100 ug/ml
Ba		100 ug/ml
Co		100 ug/ml
Cr		100 ug/ml
Cu		100 ug/ml
Fe		100 ug/ml
Mn		100 ug/ml
Ni		100 ug/ml
Pb		100 ug/ml
Se		100 ug/ml
Tl		100 ug/ml
V		100 ug/ml
Zn		100 ug/ml
Cd		50 ug/ml
Be		40 ug/ml
SR		30 ug/ml
Ag		20 ug/ml

**1.0 INORGANIC VENTURES** is an ISO Guide 34:2000 registered Certified Reference Material (CRM) Manufacturer (Certificate #883-02). The certificate is designed and the data is determined in accordance with ISO Guide 31:2000 (Reference Materials-Contents of Certificates and Labels), ISO Guide 34:2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35:1989 "Certification of Reference Materials - General and Statistical Principles."

**2.0 DESCRIPTION OF CRM** Custom Solution  
 Catalog No.: MWH-ICAP-CAL-1  
 Lot Number: **A2-MEB243151**  
 Matrix: 5% HNO<sub>3</sub>(abs)

**ME 0712001**

1,000.00 µg/mL ea:

Ca, K, Mg, Na,

100.00 µg/mL ea:

Al, As, Ba, Co, Cr<sub>3</sub>, Cu, Fe, Mn, Ni, Pb, Se, Tl, V, Zn,

50.00 µg/mL ea:

Cd,

40.00 µg/mL ea:

Be,

30.00 µg/mL ea:

Sr,

20.00 µg/mL ea:

Ag

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	100.4 ± 0.3 µg/mL	Arsenic, As	100.1 ± 0.3 µg/mL	Barium, Ba	99.6 ± 0.4 µg/mL
Beryllium, Be	40.04 ± 0.08 µg/mL	Cadmium, Cd	50.15 ± 0.12 µg/mL	Calcium, Ca	1,000 ± 2 µg/mL
Chromium+3, Cr <sub>3</sub>	100.0 ± 0.2 µg/mL	Cobalt, Co	99.9 ± 0.2 µg/mL	Copper, Cu	100.0 ± 0.2 µg/mL
Iron, Fe	99.6 ± 0.1 µg/mL	Lead, Pb	100.0 ± 0.3 µg/mL	Magnesium, Mg	1,000 ± 4 µg/mL
Manganese, Mn	100.0 ± 0.3 µg/mL	Nickel, Ni	100.0 ± 0.3 µg/mL	Potassium, K	1,001 ± 5 µg/mL
Selenium, Se	100.0 ± 0.2 µg/mL	Silver, Ag	20.04 ± 0.02 µg/mL	Sodium, Na	1,002 ± 5 µg/mL
Strontium, Sr	30.04 ± 0.18 µg/mL	Thallium, Tl	99.7 ± 0.1 µg/mL	Vanadium, V	100.0 ± 0.3 µg/mL
Zinc, Zn	100.0 ± 0.3 µg/mL				

**Certified Density:** 1.055 g/mL (measured at 22° C)

The Certified Value is based upon the most precise method used to analyze this CRM. The following equations are used in the calculation of the certified value and the uncertainty:

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$(\bar{x})$  = mean

$x_i$  = individual results

$n$  = number of measurements

$$\text{Uncertainty } (\pm) = \frac{2\{(\sum s_i^2)\}^{1/2}}{(n)^{1/2}}$$

$\sum s_i$  = The summation of all significant estimated errors

(Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

#### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

"Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

#### 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#	ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212	Ag	Volhard	999a	999a
Al	ICP Assay	3101a	010808	Al	EDTA	928	928
As	ICP Assay	3103a	010713	As	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	992907	Ba	Gravimetric		See Sec. 4.2
Be	Gravimetric		See Sec. 4.2	Be	ICP Assay	3105a	892707
Ca	EDTA	928	928	Ca	ICP Assay	3109a	000622
Cd	ICP Assay	3108	890312	Cd	EDTA	928	928
Co	EDTA	928	928	Co	ICP Assay	3181	000630
Cr3	ICP Assay	3112a	990607	Cr3	Calculated		See Sec. 4.2
Cu	EDTA	928	928	Cu	ICP Assay	3114	891811
Fe	ICP Assay	3126a	000606	Fe	EDTA	928	928
K	ICP Assay	3141a	891312	K	Gravimetric		See Sec. 4.2
Mg	EDTA	928	928	Mg	ICP Assay	3131a	991107
Mn	EDTA	928	928	Mn	ICP Assay	3132	890903
Na	ICP Assay	3152a	990907	Na	Gravimetric		See Sec. 4.2
Ni	EDTA	928	928	Ni	ICP Assay	3136	000612
Pb	EDTA	928	928	Pb	ICP Assay	3128	991504
Se	ICP Assay	3149	992106	Se	Gravimetric		See Sec. 4.2
Sr	ICP Assay	3153a	990906	Sr	EDTA	928	928
Ti	Gravimetric		See Sec. 4.2	Ti	ICP Assay	3158	993012
V	ICP Assay	3165	992706	V	EDTA	928	928
Zn	EDTA	928	928	Zn	ICP Assay	3168a	001402

- 4.2 **BALANCE CALIBRATION** - All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST). The NIST Traceability numbers are 692476 - Class 1 and 692476A - Class 2. The NIST test number is 822/260017-98. All analytical balances are calibrated every 4 months. The balances are calibrated with a class 1 and/or class 2 analytical weight set. These weights are tested annually by a NIST / NVLAP accredited calibration lab. The NIST test number is
- 4.3 **THERMOMETER CALIBRATION** - The thermometers used in the determination of the final densities are calibrated vs standard thermometer No. 903-2680 which was certified in accordance with the procedures outlined by ASTM E77-87 and NIST Monograph 150 using NIST Test Nos. and Std Nos.: 769543, 217368/769543, 217368/P14452, 176240/P14452, 176240. Thermometers which are not calibrated vs standard thermometer No. 903-2680 are traceable to NIST Identification
- 4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A Glassware used in the manufacturing and quality control of CRM's.

5.0 **TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A**

6.0 **INTENDED USE**

- For the calibration of analytical instruments including but not limited to the following:  
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
- For the validation of analytical methods
- For the preparation of "working reference samples"
- For interference studies and the determination of correction coefficients
- For detection limit and linearity studies
- For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 **INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**

**Storage & Handling** - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

**Low Silver Note:** This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 **HAZARDOUS INFORMATION** - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 **HOMOGENEITY** - This solution was mixed according to in-house procedure IV-MPM-004 and is guaranteed to be homogeneous.

10.0 **QUALITY STANDARD DOCUMENTATION**



10.1 **ISO 9001:2000 Quality Management System Registration - QMI Certificate Number 010105**

- Recognized by:
- Registrar Accreditation Board (ANSI-RAB)
- Standards Council of Canada (SCC)
- Dutch Council for Accreditation (RVA)
- Entidad Mexicana de Acreditacion, a.c (EMA)

**Members of IQ Net International Certification Network:**

- Argentina (IRAM), Australia (QAS), Austria (OQS), Belgium (Avinter), Brazil (FCAV), Canada (QMI), Hong Kong (HKQAA), Columbia (ICONTEC), Czech Republic (CQS), Denmark (DS), Finland (SFS), France (AFAQ), Germany (DQS), Greece (ELOT), Hungary (MSZT), Ireland (NSAI), Israel (SII), Italy (CISQ), Japan (JQA), Korea (KSA-QA), Netherlands (KEMA), Norway (NCS), Poland(PCBC), Portugal (APCER), Singapore (PSB), Slovenia (SIQ), Spain (AENOR), Switzerland (SQS)

10.2 **ISO/IEC 17025:2005 "General Requirements for the Competence of Testing and Calibration"**

- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 **ISO/IEC Guide 34 - 2000 "General Requirements for the Competence of Reference Material Producers"**

- Reference Materials Production - Accredited A2LA Certificate Number 883.02

**A2LA Mutual Recognition Agreement Partners:**

- Australia (NATA), Austria (BmWA), Belgium (BELTEST) (BKO-OBE), Canada (SCC), Chinese Taipei (CNLA), Czech Republic (NAO), Denmark (DANAK), Finland (FINAS), France (COFRAC), Germany (DAR), Hong Kong (HKAS), Ireland (NAB), Italy (SIT) (SINAL), Japan (JAB) (JNLA), Republic of Korea (KOLAS), The Netherlands (RVA), New Zealand (IANZ), Norway (NA), Portugal (IPO), Singapore (SAC-SINGLAS), Spain (ENAC), Sweden (SWEDAC), Switzerland (SAS), United Kingdom (UKAS) and United States (NVLAP) (ICBO ES)

10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission - Domestic Licensing of Production and Utilization Facilities**

10.5 **10CFR21 - Nuclear Regulatory Commission - Reporting Defects and Non-Compliance**

10.6 **MIL-STD-45662A (Obsolete/Observed)**

**11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY**

- 11.1 **Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special environmental controls that minimize transpiration and instability, the shelf life can be extended past this limit.
- 11.2 **Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date

**Certification Date:** November 19, 2007  
**Expiration Date:**

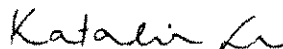
**EXPIRES**  
01 22 2008

**12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS**

**Certificate Prepared By:** Angela Sinclair, Product Documentation Administrator



**Certificate Approved By:** Katalin Le, QC Manager



**Certifying Officer:** Paul Gaines, PhD., Senior Technical Director



Initial: STE  
Date: 10/19/07

### METALS STANDARD DOCUMENTATION

**Standard:** ICP CCV/MCV/QCS Stock Standard **ME #:** 0710008  
**Date Received/Prepped:** 10/19/2007 **By:** STE  
**Date Expired:** 4/17/2009 **Lot #:** 07J154  
**Manufacturer:** CPI **Certificate:** Y  
**Matrix:** 5% HNO3 = tr HF **NIST SRM:** Various  
**Amount:** 100 mL x 10 **Storage:** Room Temp

Component	Comment	Conc. Unit:
Ag	P/N 4400-061003RH01	20 ppm
Al		100 ppm
As		100 ppm
B		50 ppm
Ba		100 ppm
bE		40 ppm
Ca		1000 ppm
Cd		50 ppm
Co		100 ppm
Cr		100 ppm
Cu		100 ppm
Fe		100 ppm
K		1000 ppm
Mg		1000 ppm
Mn		100 ppm
Mo		100 ppm
Na		1000 ppm
Ni		100 ppm
Pb		100 ppm
Sb		100 ppm
Se		100 ppm
Tl		100 ppm
V		100 ppm
Zn		100 ppm
Sr		20 ppm
Sn		20 ppm
Ti		20 ppm



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 1000 CS Amsterdam Fax +31 20 420 28 36  
 The Netherlands www.cpiinternational.com

*innovative Solutions  
 in Analytical Science and  
 Technology*

Expiry: 4/17/2009

# Certificate of Analysis

**Part Number: 4400-061003RH01**  
**Lot Number: 07J154**  
**Shelf Life: 18 months**

ME 0710008  
 rec'd: 10/19/08  
 STE

MWH  
 Custom Multi  
 5% HNO3 + tr HF

Concentrations in ug/mL ± 0.5%

Ag	20	K	1000	Sr	20
Al	100	Mg	1000	Sn	20
As	100	Mn	100	Ti	20
B	50	Mo	100		
Ba	100	Na	1000		
Be	40	Ni	100		
Ca	1000	Pb	100		
Cd	50	Sb	100		
Co	100	Se	100		
Cr	100	TL	100		
Cu	100	V	100		
Fe	100	Zn	100		

This standard solution was prepared using high-purity starting materials, high-purity acid (if required) and 18-megohm de-ionized water. The starting materials were weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

Starting materials were analyzed at 1000 µg/mL by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against the National Institute of Standards and Technology's SRM 3100 series, NIST approved second source and/or gravimetrically.

Accuracy and stability are guaranteed to within plus or minus 0.5% of the certified value for the stated shelf life from the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA, +31 20 638 05 97 in Europe or visit our web-site at [www.cpiinternational.com](http://www.cpiinternational.com).



Initial: STE  
Date: 9/13/07

## METALS STANDARD DOCUMENTATION

**Standard:** ICP CCV/MCV Stock Standard **ME #:** 0709009  
**Date Received/Prepped:** 9/13/2007 **By:** STE  
**Date Expired:** 3/11/2009 **Lot #:** 071040  
**Manufacturer:** CPI International **Certificate:**  
**Matrix:** 5% HNO3 AND 0.1% HF **NIST SRM:**  
**Amount:** 100 mL **Storage:** Room Temp.

<u>Component</u>	<u>Comment</u>	<u>Conc. Unit:</u>
Fe	P/N 4400-050314RH01	500
Al	(10 bottles)	200
Ba		100
Co		100
Cr		100
Cu		100
Mo		100
Sr		100
Ti		100
V		100
Zn		50
Ag		50
Ba		50
Mn		50
Ni		50
Sb		50
As		20
Cd		20
Pb		20
Se		20
Tl		20
Sn		100
Be		5
U		20



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in Analytical Science and  
Technology

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P.O. Box 2704 +31 20 638 05 97  
1000 CS Amsterdam Fax +31 20 420 28 36  
The Netherlands www.cpiinternational.com

Expiry: 3/11/2009

# Certificate of Analysis

**Part Number:** 4400-050314RH01  
**Lot Number:** 071040  
**Shelf Life:** 18 months

ME 07 09 009

MWH Labs  
5% HNO<sub>3</sub> + 0.1% HF  
#REF!

Concentrations in ug/mL ± 0.5%

Fe	500	B	50
Al	200	Mn	50
Ba	100	Ni	50
Co	100	Sb	50
Cr	100	As	20
Cu	100	Cd	20
Mo	100	Pb	20
Sr	100	Se	20
Ti	100	TL	20
V	100	Sn	100
Zn	100	Be	5
Ag	50	U	20

This standard solution was prepared using high-purity starting materials, high-purity acid (if required) and 18-megaohm de-ionized water. The starting materials were weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

Starting materials were analyzed at 1000 µg/mL by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against the National Institute of Standards and Technology's SRM 3100 series, NIST approved second source and/or gravimetrically.

Accuracy and stability are guaranteed to within plus or minus 0.5% of the certified value for the stated shelf life from the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA, +31 20 638 05 97 in Europe or visit our web-site at [www.cpiinternational.com](http://www.cpiinternational.com).

Initial:  
Date:

Wbh  
1/11/08

## METALS STANDARD DOCUMENTATION

Standard: ICP Spike Solution  
Date Received/Prepped: 1/11/2008  
Date Expired: 7/11/2008  
Manufacturer: MWH-wbh  
Matrix: 2% HNO<sub>3</sub>  
Amount: 100mL

ME #: 0801004  
By: Wbh  
Lot #: VARIOUS  
Certificate:  
NIST SRM:  
Storage: Room Temp

Component	Comment	Conc. Unit:
AS	8.0mL ME07090023/100mL	80 ppm
PB	8.0mL ME0704013/100mL	80 ppm
SE	8.0mL ME0703001/100mL	80 ppm
TL	8.0mL ME0702006/100mL	80 ppm

ME0709023

Initial:

STE

Date:

9/24/07

### METALS STANDARD DOCUMENTATION

**Standard:** As Stock Standard  
**Date Received/Prepped:** 9/24/2007  
**Date Expired:** 10/1/2008  
**Manufacturer:** Inorganic Ventures  
**Matrix:** 1.4% HNO3  
**Amount:** 100 mL X2

**ME #:** 0709023  
**By:** STE  
**Lot #:** A2-AS02035  
**Certificate:** Y  
**NIST SRM:**  
**Storage:** Room Temp

<u>Component</u>	<u>Comment</u>	<u>Conc. Unit:</u>
As	PN: CGAS1-1	1000 ug/ml



195 Lehigh Avenue, Suite 4  
 Lakewood, New Jersey 08701 - USA  
 inorganicventures.com

# CERTIFICATE OF ANALYSIS

tel. 800 669.6799 - 732.901.1900  
 fax. 732.901.1903  
 info@inorganicventures.com

**1.0 INORGANIC VENTURES** is an ISO Guide 34:2000 registered Certified Reference Material (CRM) Manufacturer (Certificate #883-02). The certificate is designed and the data is determined in accordance with ISO Guide 31:2000 (Reference Materials-Contents of Certificates and Labels), ISO Guide 34:2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35:1989 "Certification of Reference Materials - General and Statistical Principles."

**2.0 DESCRIPTION OF CRM      1000 µg/mL Arsenic in 1.4% (abs) HNO3**

Catalog Number: CGAS1-1, CGAS1-2, and CGAS1-5  
 Lot Number: **A2-AS02035**  
 Starting Material: As Polycrystalline lump  
 Starting Material Purity (%): 99.998288  
 Starting Material Lot No: 23444  
 Matrix: 1.4% (abs) HNO3

**ME 0709 023**

**3.0 CERTIFIED VALUES AND UNCERTAINTIES**

**Certified Concentration:** 1000 ± 6 µg/mL  
**Certified Density:** 1.010 g/mL (measured at 22° C)

The Certified Value is the instrument analysis value. The following equations are used in the calculation of the certified value and the uncertainty:

Certified Value ( $\bar{x}$ ) =  $\frac{\sum x_i}{n}$       ( $\bar{x}$ ) = mean  
 $x_i$  = individual results  
 $n$  = number of measurements

Uncertainty ( $\pm$ ) =  $\frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$        $\sum s_i$  = The summation of all significant estimated errors  
 (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

**4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

"Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

**4.1 Assay Method #1      1000 ± 6 µg/mL**  
 ICP Assay NIST SRM 3103a Lot Number: 010713

**Assay Method #2      1001 ± 5 µg/mL**  
 Gravimetric NIST SRM Lot Number: See Sec. 4.2

- 4.2 BALANCE CALIBRATION** - All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST). The NIST Traceability numbers are 692476 - Class 1 and 692476A - Class 2. The NIST test number is 822/260017-98. All analytical balances are calibrated every 4 months. The balances are calibrated with a class 1 and/or class 2 analytical weight set. These weights are tested annually by a NIST / NVLAP accredited calibration lab. The NIST test number is 822/260017-98.
- 4.3 THERMOMETER CALIBRATION** - The thermometers used in the determination of the final densities are calibrated vs standard thermometer No. 903-2680 which was certified in accordance with the procedures outlined by ASTM E77-87 and NIST Monograph 150 using NIST Test Nos. and Std Nos.: 769543, 217368/769543, 217368/P14452, 176240/P14452, 176240. Thermometers which are not calibrated vs standard thermometer No. 903-2680 are traceable to NIST Identification Nos. 92564, 119016, 471047 and NIST test report Nos. 811/258522, 811/2557078, and 236090.
- 4.4 GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

**5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP/MS AND ICP-OES IN µg/mL**

CRM's solutions are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

Q	Al	0.00047	M	Dy	< 0.02998	Q	Li	< 0.00002	M	Pr	< 0.00150	M	Te	< 0.14992
Q	Sb	< 0.01000	M	Er	< 0.02499	M	Lu	< 0.00200	Q	Re	< 0.01000	M	Tb	< 0.00150
s	As		M	Eu	< 0.01499	Q	Mg	0.00012	M	Rh	< 0.00500	M	Tl	< 0.00500
M	Ba	< 0.04992	M	Gd	< 0.00500	Q	Mn	0.00001	M	Rb	< 0.00500	M	Th	< 0.00500
M	Be	< 0.00250	M	Ga	< 0.00500	Q	Hg	< 0.01200	M	Ru	< 0.01000	M	Tm	< 0.00200
M	Bi	< 0.00200	M	Ge	< 0.02998	M	Mo	< 0.01000	M	Sm	< 0.00500	Q	Sn	0.00076
Q	B	0.00152	M	Au	< 0.01499	M	Nd	< 0.01000	M	Sc	< 0.04997	M	Ti	< 0.24987
M	Cd	< 0.01499	M	Hf	< 0.01000	Q	Ni	< 0.00200	M	Se	< 0.03998	M	W	< 0.04997
Q	Ca	0.00122	M	Ho	< 0.00250	Q	Nb	< 0.00200	Q	Sr	0.00893	M	U	< 0.01000
M	Ce	< 0.02499	M	In	< 0.04997	n	Os		M	Ag	< 0.01000	M	V	< 0.01000
M	Cs	< 0.00150	M	Ir	< 0.02499	M	Pd	< 0.02499	Q	Na	0.00228	M	Yb	< 0.00500
M	Cr	< 0.02499	Q	Fe	0.00177	Q	P	< 0.00260	M	Sr	< 0.00250	M	Y	< 0.19990
M	Co	< 0.01499	M	La	< 0.00250	M	Pt	< 0.01000	Q	S	< 0.00000	Q	Zn	0.00006
M	Cu	< 0.02998	M	Pb	< 0.01499	Q	K	0.00057	M	Ta	< 0.03498	M	Zr	< 0.02499

M - Checked by ICP-MS    Q - Checked by ICP-OES    i - Spectral Interference    n - Not Checked For    s - Solution Standard Element

**6.0 INTENDED USE**

- For the calibration of analytical instruments including but not limited to the following: ICP-MS, ICP-OES, FAAS, GFAA, XRF, and DCP
- For the validation of analytical methods
- For the preparation of "working reference samples"
- For interference studies and the determination of correction coefficients
- For detection limit and linearity studies
- For additional intended uses, contact Technical Staff

## 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

**Storage & Handling** - Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipet from container. Do not return portions removed for pipetting to container.

**Atomic Weight; Valence; Coordination Number; Chemical Form in Solution** - 74.9216; mix of +3 and +5; 6; H3AsO4 and HAsO2

**Chemical Compatibility** - Arsenic has no cationic chemistry. It is soluble in HCl, HNO3, H3PO4, H2SO4 and HF aqueous matrices water and NH4OH. It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.

**Stability** - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

**As Containing Samples (Preparation and Solution)** - As0 (soluble in 1:1 H2O / HNO3); Oxides (the oxide exists in crystalline and amorphous forms where the amorphous form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (One gram of powdered sample is fused in a NiO crucible with 10 grams of a 1:1 mix of K2CO3 and KNO3 and the melt extracted with hot water); Organic Matrices (0.2 to 0.5 grams of the sample are fused with 15 grams of a 1:1 Na2CO3 / Na2O2 mix in a NiO crucible. The fuseate is extracted with water and acidified with HNO3)

**Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):**

Technique/Line	Estimated D.L.	Order	Type	Interferences (underlined indicates severe)
ICP-OES 189.042 nm	0.05 / 0.005 µg/mL	1	atom	Cr
ICP-OES 193.896 nm	0.1 / 0.01 µg/mL	1	atom	V, Ge
ICP-OES 228.812 nm	0.1 / 0.01 µg/mL	1	atom	<u>Cd</u> , <u>Pt</u> , Ir, Co
ICP-MS 75 amu	20 ppt	n/a	M+	40Ar35Cl, 59Co16O, 36Ar38Ar1H, 38Ar37Cl, 6Ar39K, 150Nd2+, 150Sm2+

**8.0 HAZARDOUS INFORMATION** - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

**9.0 HOMOGENEITY** - This solution was mixed according to an in house procedure and is guaranteed to be homogeneous.

## 10.0 QUALITY STANDARD DOCUMENTATION



**10.1 ISO 9001:2000 Quality Management System Registration - QMI Certificate Number 010105**

Recognized by:

Registrar Accreditation Board (ANSI-RAB)

Standards Council of Canada (SCC)

Dutch Council for Accreditation (RVA)

Entidad Mexicana de Acreditacion, a.c.(EMA)

**Members of IQ Net International Certification Network:**

Argentina (IRAM), Australia (QAS), Austria (ÖQS), Belgium (Avinter), Brazil (FCAV), Canada (QMI), Hong Kong (HKQAA), Columbia (ICONTEC), Czech Republic (CQS), Denmark (DS), Finland (SFS), France (AFAQ), Germany (DQS), Greece (ELOT), Hungary (MSZT), Ireland (NSAI), Israel (SII), Italy (CISQ), Japan (JQA), Korea (KSA-QA), Netherlands (KEMA), Norway (NCS), Poland(PCBC), Portugal (APCER), Singapore (PSB), Slovenia (SIQ), Spain (AENOR), Switzerland (SQS)

**10.2 ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration"**

- Chemical Testing - Accredited A2LA Certificate Number 883.01

**10.3 ISO/IEC Guide 34 - 2000 "General Requirements for the Competence of Reference Material Producers"**

- Reference Materials Production - Accredited A2LA Certificate Number 883.02

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**10.4 10CFR50 Appendix B - Nuclear Regulatory Commission**

- Domestic Licensing of Production and Utilization Facilities

**10.5 10CFR21 - Nuclear Regulatory Commission - Reporting Defects and Non-Compliance**

**10.6 MIL-STD-45662A (Obsolete/Observed)**

**11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY**

**11.1 Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-ml, low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

**11.2 Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

**Certification Date:** February 13, 2007

**Expiration Date:**

**EXPIRES**  
1/2008

**12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS**

**Certificate Prepared By:** Nick Maida, Product Documentation Administrator *Nick Maida*

**Certificate Approved By:** Katalin Le, QC Manager *Katalin Le*

**Certifying Officer:** Paul Gaines, PhD., Senior Technical Director *Paul Gaines*



Initial:  
Date:

WBH  
4/16/07

### METALS STANDARD DOCUMENTATION

Standard: Lead Stock Standard  
Date Received/Prepped: 4/16/2007  
Date Expired: 10/11/2008  
Manufacturer: CPI  
Matrix: 2% HNO3  
Amount: 100 mL

ME #: 0704013  
By: WBH  
Lot #: 07A097  
Certificate: Y  
NIST SRM: 3128  
Room temp. storage

Component	Comment	Conc. Unit:
Pb	P/N S4400-1000281	1000 ppm



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**CERTIFICATE OF ANALYSIS**

**P/N S4400-1000281**  
**P/N 4400-1000281**  
 Single-Element Lead Standard  
 Pb in 2% HNO<sub>3</sub>  
 1000 ± 3 µg/mL

*1270704013*

**Lot # 07A097**

Material Source: Lead Metal  
 Source Purity: 99.995 %  
 Specific Gravity: 1.009 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3128. Trace impurities of the 1000 µg/mL standard were analyzed by ICP-MS.

	<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>
Al	10.3	0.1	Cu	58	0.1	Pb	X	0.1	K	ND	70
Sb	ND	0.1	Dy	ND	0.1	Li	2	0.4	Pr	ND	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1
Ba	0.22	0.1	Eu	ND	0.1	Mg	1.4	0.2	Rh	IN	0.1
Be	0.58	0.1	Gd	ND	0.1	Mn	3.8	1	Rb	ND	0.1
Bi	0.7	0.1	Ga	ND	0.1	Hg	ND	0.2	Ru	ND	0.1
B	ND	4	Ge	ND	0.1	Mo	0.17	0.1	Sm	ND	0.1
Br	ND	10	Au	ND	0.1	Nd	ND	0.1	Se	ND	6
Cd	ND	0.1	Hf	ND	0.1	Ni	0.9	0.1	Si	31	8
Ca	25	7	Ho	ND	0.1	Nb	ND	0.1	Ag	6.1	0.1
Ce	ND	0.1	I	0.1	0.2	Os	ND	0.1	Na	3.5	1
Cs	0.26	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	ND	0.1
Cr	ND	1	Fe	ND	30	P	ND	10	Ta	ND	0.1
Co	ND	0.1	La	ND	0.1	Pt	ND	0.1	Te	ND	0.1
									Tl	0.25	0.1
									Th	ND	0.1
									Tm	ND	0.1
									Sn	ND	0.1
									Ti	0.58	0.1
									W	ND	0.1
									U	ND	0.1
									V	ND	1
									Yb	ND	0.1
									Y	ND	0.1
									Zn	23	2
									Zr	INT	0.1

X=Major Element INT=Interference from Major Element DL=Detection Limit ND=None Detected

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the United States or +31 20 638 05 97 in Europe.





Initial:  
Date:

W/34  
3/5/07

## METALS STANDARD DOCUMENTATION

Standard: Selenium Stock Standard  
Date Received/Prepped: 3/5/2007  
Date Expired: 8/22/2008  
Manufacturer: CPI  
Matrix: 2% HNO<sub>3</sub>  
Amount: 100 mL

ME #: 0703001  
By: wbn  
Lot #: 6.00E+228  
Certificate: Y  
NIST SRM: 3148  
Storage: Room Temp

Component	Comment	Conc. Unit:
Se	P/N # S4400-1000491	1000 ppm



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# CERTIFICATE OF ANALYSIS

**P/N 4400-1000491**

**P/N S4400-1000491**

Single-Element Selenium Standard

Se in 2% HNO<sub>3</sub>

1000 ± 3 µg/mL

Lot # 06E228

M70703001

Material Source: Selenium Metal  
 Source Purity: 99.99%  
 Specific Gravity: 1.011 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3148. Trace impurities of the 1000 µg/mL standard were analyzed by ICP-MS.

ppb	DL	ppb	DL	ppb	DL	ppb	DL	ppb	DL
Al 1.8	0.1	Cu 0.4	0.1	Pb 0.3	0.1	K ND	70	Tl 3.6	0.1
Sb ND	0.1	Dy ND	0.1	Li ND	0.4	Pr ND	0.1	Th ND	0.1
As ND	6	Er ND	0.1	Lu ND	1	Re ND	0.1	Tm ND	0.1
Ba ND	0.1	Eu ND	0.1	Mg 1.1	0.2	Rh ND	0.1	Sn ND	0.1
Be ND	0.1	Gd ND	0.1	Mn ND	1	Rb ND	0.1	Ti ND	0.1
Bi ND	0.1	Ga ND	0.1	Hg ND	0.2	Ru ND	0.1	W ND	0.1
B ND	4	Ge ND	0.1	Mo 0.6	0.1	Sm ND	0.1	U ND	0.1
Br INT	10	Au ND	0.1	Nd ND	0.1	Se X	6	V ND	1
Cd 0.4	0.1	Hf ND	0.1	Ni 0.6	0.1	Si 40	8	Yb ND	0.1
Ca 5	7	Ho ND	0.1	Nb INT	0.1	Ag 0.8	0.1	Y ND	0.1
Ce ND	0.1	I 0.5	0.2	Os ND	0.1	Na 3.8	1	Zn ND	2
Cs ND	0.1	Ir ND	0.1	Pd ND	0.1	Sr ND	0.1	Zr INT	0.1
Cr ND	1	Fe ND	30	P ND	10	Ta ND	0.1		
Co ND	0.1	La ND	0.1	Pt ND	0.1	Te ND	0.1		

X=Major Element INT=Interference from Major Element DL=Detection Limit ND=None Detected

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.



Initial:  
Date:

WBY  
2/20/07

### METALS STANDARD DOCUMENTATION

**Standard:** Thallium 1000ppm Stock Std  
**Date Received/Prepped:** 2/20/2007  
**Date Expired:** 8/16/2008  
**Manufacturer:** CPI  
**Matrix:** 2% HNO3  
**Amount:** 100 mL

**ME #:** 0702006  
**By:** WBH  
**Lot #:** 06H213  
**Certificate:** Y  
**NIST SRM:** 3158  
Room temp. storage

Component	Comment	Conc. Unit:
Tl	P/N S4400-1000581	1000 ppm

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MF0702006

# CERTIFICATE OF ANALYSIS

**P/N 4400-1000581**  
**P/N S4400-1000581**

Single Element Thallium Standard  
Tl in 2% HNO<sub>3</sub>  
1000 ± 3 µg/mL

Lot # 06H213

Material Source: Thallium metal  
Source Purity: 99.999%  
Specific Gravity: 1.015 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3158. Trace impurities of the 1000 µg/mL standard were analyzed by ICP-MS.

ppb	DL	ppb	DL	ppb	DL	ppb	DL	ppb	DL
Al 13.3	0.1	Cu 9.3	0.1	Pb 41	0.1	K ND	70	Tl X	0.1
Sb ND	0.1	Dy ND	0.1	Li ND	0.4	Pr ND	0.1	Th ND	0.1
As ND	6	Er ND	0.1	Lu ND	1	Re ND	0.1	Tm ND	0.1
Ba 0.37	0.1	Eu ND	0.1	Mg 1.7	0.2	Rh ND	0.1	Sn ND	0.1
Be 0.67	0.1	Gd ND	0.1	Mn ND	1	Rb ND	0.1	Ti 0.45	0.1
Bi 0.12	0.1	Ga ND	0.1	Hg 0.16	0.2	Ru ND	0.1	W ND	0.1
B ND	4	Ge ND	0.1	Mo 0.21	0.1	Sm ND	0.1	U ND	0.1
Br ND	10	Au ND	0.1	Nd ND	0.1	Se ND	6	V ND	1
Cd 1.6	0.1	Hf ND	0.1	Ni 1.1	0.1	Si 46	8	Yb ND	0.1
Ca 51	7	Ho ND	0.1	Nb ND	0.1	Ag 0.3	0.1	Y ND	0.1
Ce ND	0.1	I 0.4	0.2	Os ND	0.1	Na 3.3	1	Zn 14.7	2
Cs 0.24	0.1	Ir ND	0.1	Pd ND	0.1	Sr ND	0.1	Zr ND	0.1
Cr ND	1	Fe ND	30	P 20	10	Ta ND	0.1		
Co ND	0.1	La ND	0.1	Pt ND	0.1	Te ND	0.1		

X=Major Element INT=Interference from Major Element DL=Detection Limit ND=None Detected

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654.



Initial: wbh  
Date: 3/12/08

## METALS STANDARD DOCUMENTATION

**Standard:** ICP LCS/SPIKE Solution **ME #:** 0803001  
**Date Received/Prepped:** 3/12/2008 **By:** wbh  
**Date Expired:** 8/12/2008 **Lot #:**  
**Manufacturer:** MWH-wbh **Certificate:** NO  
**Matrix:** 2% HNO<sub>3</sub> + 5% HCl **NIST SRM:**  
**Amount:** 100mL **Storage:** Room Temp

<u>Component</u>	<u>Comment</u>	<u>Conc. Unit:</u>
Ca	1:4 ME0702002	5000 ug/ml
K	1:10 ME0702005	1000 ug/ml
Mg	1:10 ME0702004	1000 ug/ml
Na	1:4 ME0702003	5000 ug/ml

Initial: W37  
Date: 2/20/07

### METALS STANDARD DOCUMENTATION

**Standard:** Calcium 10000ppm Stock Std      **ME #:** 0702002  
**Date Received/Prepped:** 2/20/2007      **By:** WBH  
**Date Expired:** 8/16/2008      **Lot #:** 07B065  
**Manufacturer:** CPI      **Certificate:** Y  
**Matrix:** 4% HNO3      **NIST SRM:** 3109a  
**Amount:** 250 mL      Room temp. storage

Component	Comment	Conc. Unit:
Ca	P/N 4400-10M91	10000 ppm





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## CERTIFICATE OF ANALYSIS

**P/N 4400-10M91**  
**P/N S4400-10M91**

180702602

Single-Element Calcium Standard  
Ca in 4% HNO<sub>3</sub>  
10,000 ± 30 µg/mL

Lot # 07B065

Material Source: Calcium Carbonate (CaCO<sub>3</sub>)  
Source Purity: 99.997%  
Specific Gravity: 1.035 @ 21 °C

This standard solution was prepared using high-purity salt, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3109a. Trace impurities of the standard solution at 1000 µg/mL were analyzed by ICP-MS.

<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>
Al 7	0.1	Cu 1.7	0.1	Pb 0.23	0.1	K ND	70	Tl 0.27	0.1
Sb ND	0.1	Dy ND	0.1	Li ND	0.4	Pr ND	0.1	Th ND	0.1
As ND	6	Er ND	0.1	Lu ND	1	Re ND	0.1	Tm ND	0.1
Ba 1.5	0.1	Eu ND	0.1	Mg 38	0.2	Rh ND	0.1	Sn ND	0.1
Be ND	0.1	Gd ND	0.1	Mn ND	1	Rb ND	0.1	Ti ND	0.1
Bi ND	0.1	Ga ND	0.1	Hg ND	0.2	Ru ND	0.1	W ND	0.1
B 1.5	4	Ge ND	0.1	Mo ND	0.1	Sm ND	0.1	U ND	0.1
Br ND	10	Au ND	0.1	Nd ND	0.1	Se ND	6	V ND	1
Cd ND	0.1	Hf ND	0.1	Ni 3	0.1	Si 47	8	Yb ND	0.1
Ca X	7	Ho ND	0.1	Nb ND	0.1	Ag ND	0.1	Y ND	0.1
Ce ND	0.1	I 0.27	0.2	Os ND	0.1	Na 11.6	1	Zn 3.5	2
Cs ND	0.1	Ir ND	0.1	Pd ND	0.1	Sr 55	0.1	Zr ND	0.1
Cr ND	1	Fe INT	30	P ND	10	Ta ND	0.1		
Co INT	0.1	La 0.41	0.1	Pt ND	0.1	Te ND	0.1		

INT=Interference from Major Element ND=None Detected X=Major Element DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.

Initial: UBJ  
Date: 2/20/07

### METALS STANDARD DOCUMENTATION

**Standard:** Sodium 10000ppm Stock Std **ME #:** 0702003  
**Date Received/Prepped:** 2/20/2007 **By:** WBH  
**Date Expired:** 8/16/2008 **Lot #:** 07B057  
**Manufacturer:** CPI **Certificate:** Y  
**Matrix:** 1% HNO3 **NIST SRM:** 3152a  
**Amount:** 250 mL **Room temp. storage**

<u>Component</u>	<u>Comment</u>	<u>Conc. Unit:</u>
Na	P/N 4400-10M521	10000 ppm



Initial:

WBH

Date:

2/14/07

## METALS STANDARD DOCUMENTATION

**Standard:** Magnesium 10000ppm Stock Std **ME #:** 0702004  
**Date Received/Prepped:** 2/20/2007 **By:** WBH  
**Date Expired:** 8/16/2008 **Lot #:** 07B058  
**Manufacturer:** CPI **Certificate:** Y  
**Matrix:** 4% HNO<sub>3</sub> **NIST SRM:** 3131  
**Amount:** 250 mL Room temp. storage

<b>Component</b>	<b>Comment</b>	<b>Conc. Unit:</b>
Mg	P/N 4400-10M311	10000 ppm



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## CERTIFICATE OF ANALYSIS

**P/N 4400-10M311**

**P/N S4400-10M311**

Single-Element Magnesium Standard

Mg in 4% HNO<sub>3</sub>  
 10,000 ± 30 µg/mL

Lot # 07B058

*470702004*

Material Source: Magnesium Metal  
 Source Purity: 99.99%  
 Specific Gravity: 1.056 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3131. Trace impurities of the standard solution at 1000 µg/mL were analyzed by ICP-MS.

ppb	DL	ppb	DL	ppb	DL	ppb	DL	ppb	DL
Al 28	0.1	Cu 1.6	0.1	Pb 7.7	0.7	K ND	70	Tl 0.91	0.1
Sb ND	0.1	Dy ND	0.1	Li ND	0.4	Pr 0.28	0.1	Th ND	0.1
As ND	6	Er ND	0.1	Lu ND	1	Re ND	0.1	Tm ND	0.1
Ba 0.28	0.1	Eu ND	0.1	Mg X	0.2	Rh ND	0.1	Sn 0.14	0.1
Be ND	0.1	Gd 0.23	0.1	Mn 19.8	1	Rb ND	0.1	Ti ND	0.1
Bi ND	0.1	Ga 0.18	0.1	Hg ND	0.2	Ru ND	0.1	W ND	0.1
B ND	4	Ge ND	0.1	Mo ND	0.1	Sm ND	0.1	U ND	0.1
Br ND	10	Au ND	0.1	Nd 1.1	0.1	Se ND	6	V ND	1
Cd ND	0.1	Hf ND	0.1	Ni 1	0.1	Si 64	20	Yb ND	0.1
Ca ND	7	Ho ND	0.1	Nb ND	0.1	Ag 0.19	0.1	Y 0.2	0.1
Ce 2.1	0.1	I 1	0.2	Os ND	0.1	Na 7.2	1	Zn ND	1
Cs ND	0.1	Ir ND	0.1	Pd ND	0.1	Sr 0.19	0.1	Zr 0.29	0.1
Cr ND	1	Fe 80	30	P ND	10	Ta ND	0.1		
Co ND	0.1	La 0.76	0.1	Pt ND	0.1	Te ND	0.1		

X=Major Element INT=Interference from Major Element ND=Not Detected DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.



Initial: W 3y  
Date: 2/20/07

### METALS STANDARD DOCUMENTATION

**Standard:** Potassium 10000ppm Stock Std      **ME #:** 0702005  
**Date Received/Prepped:** 2/20/2007      **By:** WBH  
**Date Expired:** 8/16/2008      **Lot #:** 07B056  
**Manufacturer:** CPI      **Certificate:** Y  
**Matrix:** 1% HNO3      **NIST SRM:** 3141  
**Amount:** 250 mL      Room temp. storage

Component	Comment	Conc. Unit:
K	P/N 4400-10M411	10000 ppm

AUG 16 '08



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**CERTIFICATE OF ANALYSIS**

M20702005

**P/N 4400-10M411**  
**P/N S4400-10M411**  
 Single-Element Potassium Standard  
 K in 1% HNO<sub>3</sub>  
 10,000 ± 30 µg/mL

Lot # 07B056

Material Source: Potassium Nitrate (KNO<sub>3</sub>)  
 Source Purity: 99.999%  
 Specific Gravity: 1.019 @ 21 °C

This standard solution was prepared using high-purity salt, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3141. Trace impurities of the standard solution at 1000µg/mL were analyzed by ICP-MS.

	<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>
Al	0.39	0.1	Cu	0.16	0.1	Pb	ND	0.1	K	X	70
Sb	0.34	0.1	Dy	ND	0.1	Li	ND	0.4	Pr	ND	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1
Ba	0.14	0.1	Eu	ND	0.1	Mg	2.6	0.2	Rh	ND	0.1
Be	ND	0.1	Gd	ND	0.1	Mn	0.93	1	Rb	9.5	0.1
Bi	ND	0.1	Ga	ND	0.1	Hg	ND	0.2	Ru	ND	0.1
B	ND	4	Ge	ND	0.1	Mo	ND	0.1	Sm	ND	0.1
Br	ND	10	Au	ND	0.1	Nd	ND	0.1	Se	ND	6
Ca	ND	0.1	Hf	ND	0.1	Ni	0.4	0.1	Si	50	20
Ce	ND	0.1	Ho	ND	0.1	Nb	ND	0.1	Ag	ND	0.1
Cs	ND	0.1	I	ND	0.2	Os	ND	0.1	Na	19	1
Cr	ND	1	Ir	ND	0.1	Pd	ND	0.1	Sr	1	0.1
Co	ND	0.1	Fe	ND	30	P	18	10	Ta	ND	0.1
			La	ND	0.1	Pt	ND	0.1	Te	ND	0.1
									Tl	ND	0.1
									Th	ND	0.1
									Tm	ND	0.1
									Sn	0.17	0.1
									Ti	ND	0.1
									W	ND	0.1
									U	ND	0.1
									V	ND	1
									Yb	ND	0.1
									Y	ND	0.1
									Zn	2.9	1
									Zr	ND	0.1

X=Major Element INT=Interference from Major Element ND=Not Detected DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.

Date:

*wzh*  
1/11/08

### METALS STANDARD DOCUMENTATION

Standard: ICP MRL Working Stock Soluti      ME #: 0801007  
Date Received/Prepped: 1/11/2008      By: Wbh  
Date Expired: 7/11/2008      Lot #:  
Manufacturer: MWH-wbh      Certificate: Y  
Matrix: 5% HNO3      NIST SRM:  
Amount: 100 mL      Room temp. storage

Component	Comment	Conc. Unit:
Al	10mL ME0709020 / 100mL	5 ppm
Sb		5 ppm
As		10 ppm
Ba		2 ppm
Be		0.1 ppm
Ba		5 ppm
Cd		0.5 ppm
Ca		100 ppm
Cr		1 ppm
Co		5 ppm
Cu		1 ppm
Fe		2 ppm
Pb		2 ppm
Li		10 ppm
Mg		0.2 ppm
Mn		2 ppm
Mo		2 ppm
Ni		100 ppm
K		10 ppm
Se		1 ppm
Ag		100 ppm
Na		2 ppm
Tl		0.2 ppm
V		10 ppm
Zn		0.1 ppm
Ti		2 ppm
Sr		1 ppm
Sn		20 ppm





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ME0709020

Expiry 9/18/2008

# Certificate of Analysis

**Part Number:** 4400-060915RH01  
**Lot Number:** 061162  
**Shelf Life:** 12 months

MWH  
Custom Standard  
2% HNO<sub>3</sub> + tr HF

Concentrations in ug/mL ± 0.5%

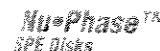
Al	50	Pb	20	Zn	20
Si	50	Li	1	Ti	20
As	100	Mg	100	Sr	10
Ba	20	Mn	2	Sn	200
Be	1	Mo	20		
B	50	Ni	20		
Cd	5	K	1000		
Ca	1000	Se	100		
Cr	10	Ag	10		
Co	50	Na	1000		
Cu	10	TL	100		
Fe	20	V	2		

This standard solution was prepared using high-purity starting materials, high-purity acid (if required) and 18-megaohm de-ionized water. The starting materials were weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

~~Starting materials were analyzed at 1000 ug/mL by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against the National Institute of Standards and Technology's SRM 3100 series, NIST approved second source and/or gravimetrically.~~

Accuracy and stability are guaranteed to within plus or minus 0.5% of the certified value for the stated shelf life from the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

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Initial: STE  
Date: 12/1/07

### METALS STANDARD DOCUMENTATION

**Standard:** Interference Check Standard (ICSA) **ME #:** 0712003  
**Date Received/Prepped:** 12/1/2007 **By:** STE  
**Date Expired:** 6/1/2008 **Lot #:**  
**Manufacturer:** MWH-STE **Certificate:**  
**Matrix:** 5% HNO3 **NIST SRM:**  
**Amount:** 500 mL **Room temp. storage**

<u>Component</u>	<u>Comment</u>	<u>Conc. Unit:</u>
Al	P/N 4400-INTA1-500	250 ppm
Ca	25 mL in 500 mL	250 ppm
Fe		100 ppm
Mg		250 ppm

Initial: STE  
Date: 12/01/07

## METALS STANDARD DOCUMENTATION

**Standard:** Interference Check Standard (ICSAB) **ME #:** 0712004  
**Date Received/Prepped:** 12/1/2007 **By:** STE  
**Date Expired:** 6/1/2008 **Lot #:**  
**Manufacturer:** MWH-STE **Certificate:**  
**Matrix:** 5% HNO3 **NIST SRM:**  
**Amount:** 500 mL **Room temp. storage**

Component	Comment	Conc. Unit:
Al	P/N 4400-INTA1-500 (25 mL)	250 ppm
Ca	P/N 4400-INTB1-100 (2.5 mL)	250 ppm
Fe		100 ppm
Mg		250 ppm
Ag		0.5 ppm
Ba		0.25 ppm
Be		0.25 ppm
Cd		0.5 ppm
Co		0.25 ppm
Cr		0.25 ppm
Cu		0.25 ppm
Mn		0.25 ppm
Ni		0.5 ppm
Pb		0.5 ppm
V		0.25 ppm
Zn		0.5 ppm

Initial:  
Date:

WBH  
10/17/06

### METALS STANDARD DOCUMENTATION

Standard: ICP CCV/MCV Stock Standard  
Date Received/Prepped: 10/17/2006  
Date Expired: 4/10/2008  
Manufacturer: CPI  
Matrix: 5% HNO<sub>3</sub> = tr HF  
Amount: 100 mL x 10

ME #: 0610005  
By: WBH  
Lot #: 06j053  
Certificate: Y  
NIST SRM: Various  
Storage: Room Temp

Component	Comment	Conc.	Unit:
Ag		20	ppm
Al		100	ppm
As		100	ppm
B		50	ppm
Ba		100	ppm
bE		40	ppm
Ca		1000	ppm
Cd		50	ppm
Co		100	ppm
Cr		100	ppm
Cu		100	ppm
Fe		100	ppm
K		100	ppm
Mg		1000	ppm
Mn		1000	ppm
Mo		100	ppm
Na		100	ppm
Ni		1000	ppm
Pb		100	ppm
Sb		100	ppm
Se		100	ppm
Tl		100	ppm
V		100	ppm
Zn		100	ppm
Sr		100	ppm
Sn		20	ppm
Ti		20	ppm



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Expiry: 4/10/2008

# Certificate of Analysis

**Part Number:** 4400-061003RH01  
**Lot Number:** 06J053  
**Shelf Life:** 18 months

M70610005

MWH  
 Custom Multi  
 5% HNO<sub>3</sub> + tr HF

Concentrations in ug/mL ± 0.5%

Ag	20	K	1000	Sr	20
Al	100	Mg	1000	Sn	20
As	100	Mn	100	Ti	20
B	50	Mo	100		
Ba	100	Na	1000		
Be	40	Ni	100		
Ca	1000	Pb	100		
Cd	50	Sb	100		
Co	100	Se	100		
Cr	100	TL	100		
Cu	100	V	100		
Fe	100	Zn	100		

This standard solution was prepared using high-purity starting materials, high-purity acid (if required) and 18-megaohm de-ionized water. The starting materials were weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

Starting materials were analyzed at 1000µg/mL by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against the National Institute of Standards and Technology's SRM 3100 series, NIST approved second source and/or gravimetrically.

Accuracy and stability are guaranteed to within plus or minus 0.5% of the certified value for the stated shelf life from the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

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ME0801010

Initial: Wbh  
Date: 1/11/08

### METALS STANDARD DOCUMENTATION

Standard: ICP 1 PPM CHECK ME #: 0801010  
Date Received/Prepped 1/11/2008 By: Wbh  
Date Expired: 7/11/2008 Lot #: VARIOUS  
Manufacturer: MWH-wbh Certificate:  
Matrix: 5% HNO3 NIST SRM:  
Amount: 500 mL Storage: Room Tem

Component	Comment	Conc. Unit:
Ag	5mL ME0708011 /500mL	1 mg/L
Al		1 mg/L
B		1 mg/L
Ba		1 mg/L
K		10 mg/L
Na		1 mg/L
Si		1 mg/L
As	5mL ME0708012 /500mL	1 mg/L
Be		1 mg/L
Ca		1 mg/L
Cd		1 mg/L
Co		1 mg/L
Cr		1 mg/L
Cu		1 mg/L
Fe		1 mg/L
Li		1 mg/L
Mg		1 mg/L
Mn		1 mg/L
Mo		1 mg/L
Ni		1 mg/L
Pb		1 mg/L
Sb		1 mg/L
Se		1 mg/L
Sr		1 mg/L
Ti		1 mg/L
Tl		1 mg/L
V		1 mg/L
Zn		1 mg/L

ME0705011

Initial:

STE

Date:

8/27/07

### METALS STANDARD DOCUMENTATION

**Standard:** QC Check Standard 7  
**Date Received/Prepped:** 8/27/2007  
**Date Expired:** 8/31/2007  
**Manufacturer:** Crescent Chemical Co. Inc.  
**Matrix:** 5% HNO3  
**Amount:**

ME #: 0705011

By: STE

Lot #: 0744381

Certificate:

NIST SRM:

100 Storage: Room Temp.

Component	Comment	Conc. Unit:
Ag	Catalog No: QC-007.1	100 ug/mL
Al		100 ug/mL
B		100 ug/mL
Ba		100 ug/mL
K		1000 +/- 5 ug/mL
Na		100 ug/mL
Si		50 ug/mL

ME 07 08 011

*Laboratory Report - Certificate of Analysis*

**Environmental Multielement Standard**

**QC Check Standard 7**

**CATALOG NO: QC-007.1**

**CONTENTS: See Below**

**MATRIX: 5% HNO<sub>3</sub>/tr. F<sup>-</sup>**

**LOT NO.: 074438I**

This solution is intended for use as a calibration standard for plasma emission spectroscopy (ICP or DCP). It is a multielement solution, that was prepared gravimetrically to contain the elements/concentrations shown below.

In order to verify the concentration, the final solution was checked against NIST SRMS: 3101a, 3104a, 3107, 3141a, 3150, 3151, and 3152a.

Concentrations are given in  $\mu\text{g/mL}$  unless noted otherwise.

Ag 100	Al 100	B 100	Ba 100	K 1,000 $\pm$ 5
Na 100	Si 50.0			

**Crescent Chemical Co. Inc.**

*Julie M. MacIntosh*  
QA Manager

**EXPIRES: August 2008**

CRESCENT CHEMICAL CO, INC., waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

*Crescent Chemical Co, Inc., 2 Oval Drive, Islandia, NY 11749  
(516) 348-0333 - Fax (516) 348-0913*



Initial: CSK  
Date: 05/05/08

## METALS STANDARD DOCUMENTATION

**Standard:** ICP LINEARITY CHECK  
**Date Received/Prepped:** 5/5/2008  
**Date Expired:** 11/5/2008  
**Manufacturer:** MWH-STE  
**Matrix:** 5% HNO3  
**Amount:** 500ML

**ME #: 0805001**  
**By:** CSK  
**Lot #: VARIOUS**  
**Certificate:**  
**NIST SRM:**  
**Storage:** Room Temp

<u>Component</u>	<u>Comment</u>	<u>Conc. Unit:</u>
CA	15.0ML ME0702002/500ML	300 ppm
K	15.0ML ME0702005/500ML	300 ppm
MG	10.0ML ME0702004/500ML	200 ppm
NA	15.0ML ME0702003/500ML	300 ppm
FE	5.0ML ME0701008/500ML	100 ppm

Initial:

W34

Date:

1/27/07

## METALS STANDARD DOCUMENTATION

Standard: FE 10000ppm Stock Std  
Date Received/Prepped: 1/26/2007  
Date Expired: 7/19/2008  
Manufacturer: CPI  
Matrix: 4% HNO3  
Amount: 100 mL

ME #: 701008  
By: WBH  
Lot #: 061143  
Certificate:  
NIST SRM: 3126a  
Storage: Room Temp

Component	Comment	Conc. Unit:
Fe	PN4400-10M261	10000 PPM



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## CERTIFICATE OF ANALYSIS

HTE0901008

**P/N 4400-10M261**

**P/N S4400-10M261**

Single-Element Iron Standard

Fe in 4% HNO<sub>3</sub>

10,000 ± 30 µg/mL

Lot # 06I143

Material Source: Iron Metal  
 Source Purity: 99.999%  
 Specific Gravity: 1.062 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3126a. Trace impurities of the standard solution at 1000 µg/mL were analyzed by ICP-MS.

	<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>
Al	INT	0.1	Cu	6.4	0.1	Pb	ND	0.1	K	ND	70
Sb	0.35	0.1	Dy	ND	0.1	Li	ND	0.4	Pr	ND	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1
Ba	ND	0.1	Eu	ND	0.1	Mg	1.3	0.2	Rh	ND	0.1
Be	ND	0.1	Gd	ND	0.1	Mn	INT	1	Rb	ND	0.1
Bi	ND	0.1	Ga	0.41	0.1	Hg	ND	0.2	Ru	ND	0.1
B	ND	4	Ge	INT	0.1	Mo	4.9	0.1	Sm	ND	0.1
Br	ND	10	Au	ND	0.1	Nd	ND	0.1	Se	ND	6
Cd	ND	0.1	Hf	ND	0.1	Ni	9.3	0.1	Si	INT	8
Ca	15	7	Ho	ND	0.1	Nb	ND	0.1	Ag	ND	0.1
Ce	ND	0.1	I	0.34	0.2	Os	ND	0.1	Na	8	1
Cs	0.34	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	ND	0.1
Cr	3.3	1	Fe	X	30	P	28	10	Ta	ND	0.1
Co	12	0.1	La	ND	0.1	Pt	ND	0.1	Te	ND	0.1

INT=Interference from Major Element ND=Not Detected X=Major Element DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.

Initial: W 3y  
Date: 2/20/07

### METALS STANDARD DOCUMENTATION

Standard: Potassium 10000ppm Stock Std  
Date Received/Prepped: 2/20/2007  
Date Expired: 8/16/2008  
Manufacturer: CPI  
Matrix: 1% HNO3  
Amount: 250 mL

ME #: 0702005  
By: WBH  
Lot #: 07B056  
Certificate: Y  
NIST SRM: 3141  
Room temp. storage

Component	Comment	Conc. Unit:
K	P/N 4400-10M411	10000 ppm

AUG 16 '08



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## CERTIFICATE OF ANALYSIS

MB0702005

**P/N 4400-10M411**  
**P/N S4400-10M411**  
 Single-Element Potassium Standard  
 K in 1% HNO<sub>3</sub>  
 10,000 ± 30 µg/mL

Lot # 07B056

Material Source: Potassium Nitrate (KNO<sub>3</sub>)  
 Source Purity: 99.999%  
 Specific Gravity: 1.019 @ 21 °C

This standard solution was prepared using high-purity salt, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3141. Trace impurities of the standard solution at 1000µg/mL were analyzed by ICP-MS.

<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>
Al 0.39	0.1	Cu 0.16	0.1	Pb ND	0.1	K X	70	Tl ND	0.1
Sb 0.34	0.1	Dy ND	0.1	Li ND	0.4	Pr ND	0.1	Th ND	0.1
As ND	6	Er ND	0.1	Lu ND	1	Re ND	0.1	Tm ND	0.1
Ba 0.14	0.1	Eu ND	0.1	Mg 2.6	0.2	Rh ND	0.1	Sn 0.17	0.1
Be ND	0.1	Gd ND	0.1	Mn 0.93	1	Rb 9.5	0.1	Ti ND	0.1
Bi ND	0.1	Ga ND	0.1	Hg ND	0.2	Ru ND	0.1	W ND	0.1
B ND	4	Ge ND	0.1	Mo ND	0.1	Sm ND	0.1	U ND	0.1
Br ND	10	Au ND	0.1	Nd ND	0.1	Se ND	6	V ND	1
Cf ND	0.1	Hf ND	0.1	Ni 0.4	0.1	Si 50	20	Yb ND	0.1
Ca 82	7	Ho ND	0.1	Nb ND	0.1	Ag ND	0.1	Y ND	0.1
Ce ND	0.1	I ND	0.2	Os ND	0.1	Na 19	1	Zn 2.9	1
Cs ND	0.1	Ir ND	0.1	Pd ND	0.1	Sr 1	0.1	Zr ND	0.1
Cr ND	1	Fe ND	30	P 18	10	Ta ND	0.1		
Co ND	0.1	La ND	0.1	Pt ND	0.1	Te ND	0.1		

X=Major Element INT=Interference from Major Element ND=Not Detected DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.

Initial:

Date:

WBH

2/20/07

## METALS STANDARD DOCUMENTATION

**Standard:** Magnesium 10000ppm Stock Std      **ME #:** 0702004  
**Date Received/Prepped:** 2/20/2007      **By:** WBH  
**Date Expired:** 8/16/2008      **Lot #:** 07B058  
**Manufacturer:** CPI      **Certificate:** Y  
**Matrix:** 4% HNO3      **NIST SRM:** 3131  
**Amount:** 250 mL      Room temp. storage

<u>Component</u>	<u>Comment</u>	<u>Conc. Unit:</u>
Mg	P/N 4400-10M311	10000 ppm



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## CERTIFICATE OF ANALYSIS

*Handwritten:* 470702004

**P/N 4400-10M311**  
**P/N S4400-10M311**  
 Single-Element Magnesium Standard

Mg in 4% HNO<sub>3</sub>  
 10,000 ± 30 µg/mL

Lot # 07B058

Material Source: Magnesium Metal  
 Source Purity: 99.99%  
 Specific Gravity: 1.056 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3131. Trace impurities of the standard solution at 1000 µg/mL were analyzed by ICP-MS.

<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>	<u>ppb</u>	<u>DL</u>
Al 28	0.1	Cu 1.6	0.1	Pb 7.7	0.7	K ND	70	Tl 0.91	0.1
Sb ND	0.1	Dy ND	0.1	Li ND	0.4	Pr 0.28	0.1	Th ND	0.1
As ND	6	Er ND	0.1	Lu ND	1	Re ND	0.1	Tm ND	0.1
Ba 0.28	0.1	Eu ND	0.1	Mg X	0.2	Rh ND	0.1	Sn 0.14	0.1
Be ND	0.1	Gd 0.23	0.1	Mn 19.8	1	Rb ND	0.1	Ti ND	0.1
Bi ND	0.1	Ga 0.18	0.1	Hg ND	0.2	Ru ND	0.1	W ND	0.1
B ND	4	Ge ND	0.1	Mo ND	0.1	Sm ND	0.1	U ND	0.1
Br ND	10	Au ND	0.1	Nd 1.1	0.1	Se ND	6	V ND	1
Cd ND	0.1	Hf ND	0.1	Ni 1	0.1	Si 64	20	Yb ND	0.1
Ca ND	7	Ho ND	0.1	Nb ND	0.1	Ag 0.19	0.1	Y 0.2	0.1
Ce 2.1	0.1	I 1	0.2	Os ND	0.1	Na 7.2	1	Zn ND	1
Cs ND	0.1	Ir ND	0.1	Pd ND	0.1	Sr 0.19	0.1	Zr 0.29	0.1
Cr ND	1	Fe 80	30	P ND	10	Ta ND	0.1		
Co ND	0.1	La 0.76	0.1	Pt ND	0.1	Te ND	0.1		

X=Major Element INT=Interference from Major Element ND=Not Detected DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.

150



Initial:

Date:

UBJ  
2/20/07

## METALS STANDARD DOCUMENTATION

**Standard:** Sodium 10000ppm Stock Std  
**Date Received/Prepped:** 2/20/2007  
**Date Expired:** 8/16/2008  
**Manufacturer:** CPI  
**Matrix:** 1% HNO3  
**Amount:** 250 mL

**ME #:** 0702003  
**By:** WBH  
**Lot #:** 07B057  
**Certificate:** Y  
**NIST SRM:** 3152a  
Room temp. storage

<u>Component</u>	<u>Comment</u>	<u>Conc. Unit:</u>
Na	P/N 4400-10M521	10000 ppm



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# CERTIFICATE OF ANALYSIS

P/N 4400-10M521

P/N S4400-10M521

Single-Element Sodium Standard

Na in 1% HNO<sub>3</sub>

10,000 ± 30 µg/mL

Lot # 07B057

M70702003

Material Source: Sodium Nitrate (NaNO<sub>3</sub>)  
Source Purity: 99.99%  
Specific Gravity: 1.053 @ 21 °C

This standard solution was prepared using high-purity salt, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3152a. Trace impurities of the standard solution at 1000µg/mL were analyzed by ICP-MS.

ppb	DL	ppb	DL	ppb	DL	ppb	DL	ppb	DL
Al 1.5	0.1	Cu 0.45	0.1	Pb ND	0.1	K ND	70	Tl ND	0.1
Sb ND	0.1	Dy ND	0.1	Li ND	0.4	Pr ND	0.1	Th ND	0.1
As ND	6	Er ND	0.1	Lu ND	1	Re ND	0.1	Tm ND	0.1
Ba 0.13	0.1	Eu ND	0.1	Mg 2.3	0.2	Rh ND	0.1	Sn ND	0.1
Be ND	0.1	Gd ND	0.1	Mn ND	1	Rb ND	0.1	Ti ND	0.1
Bi ND	0.1	Ga ND	0.1	Hg ND	0.2	Ru ND	0.1	W ND	0.1
B ND	4	Ge ND	0.1	Mo ND	0.1	Sm ND	0.1	U ND	0.1
Br ND	10	Au ND	0.1	Nd ND	0.1	Se ND	6	V ND	1
Cd ND	0.1	Hf ND	0.1	Ni 0.4	0.1	Si 50	8	Yb ND	0.1
Ca 120	7	Ho ND	0.1	Nb ND	0.1	Ag ND	0.1	Y ND	0.1
Ce ND	0.1	I ND	0.2	Os ND	0.1	Na X	1	Zn 2.9	2
Cs ND	0.1	Ir ND	0.1	Pd ND	0.1	Sr I	0.1	Zr ND	0.1
Cr ND	1	Fe ND	30	P 18	10	Ta ND	0.1		
Co ND	0.1	La ND	0.1	Pt ND	0.1	Te ND	0.1		

X=Major Element INT=Interference from Major Element ND=Not Detected DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the United States or +31 20 638 05 97 in Europe.

Initial:

W37

Date:

2/20/07

## METALS STANDARD DOCUMENTATION

**Standard:** Calcium 10000ppm Stock Std **ME #:** 0702002  
**Date Received/Prepped:** 2/20/2007 **By:** WBH  
**Date Expired:** 8/16/2008 **Lot #:** 07B065  
**Manufacturer:** CPI **Certificate:** Y  
**Matrix:** 4% HNO3 **NIST SRM:** 3109a  
**Amount:** 250 mL **Room temp. storage**

<b>Component</b>	<b>Comment</b>	<b>Conc. Unit:</b>
Ca	P/N 4400-10M91	10000 ppm

