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Level IV Data Package

MWH Group 203157

Method: SW 846 6010B CR

Sample No.:

2705010702
2705010703
2705010705
2705010710
2705010712
2705010716
2705010717

EPA 200.7/6010B QC Check List

Analyst WRL Analysis Date 5/7/07 Reviewer/Date: 9 May 07

Instrumnet PerKin Elmer Optima 4300DV

✓ All sample analyzed within 6 month holding time

✓ All sample raw concentraction below the high standard or linear anged samples marked for dilution and rerun

Initial and closing QC
- ✓ ICV within +/- 5%
- ✓ Linearity check +/- 10%
- ✓ ICSAB +/- 20%
- ✓ 1 PPM check +/-/10%
- ✓ 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 +/-20%
- ✓ 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

N/A QIR needed for failed QC

✓ Special Det Code noted on the cover sheet Cr 6010

N/A R value for multi point calibration is > 0.995

✓ Proper MRL check ran for special low MRL samples

Reagent and Standards used for
Optima 4300 DV
Updated 04/23/07

Int: WRL
Date: 5/7/07

Method 200.7/6010

ICP SUMMARY SHEET

File ID: 070507a
Date Started: 5/7/07
Analyst ID: wbh

SAMPLE ID

LINEARITY	(15:22)	Wash	(15:33)	WASH	(15:55)
2705010118	(16:14)	2705010125	(16:26)	2705010116	(16:45)
2705010117	(16:49)	2705010119	(16:54)	2705010120	(16:58)
2705010121	(17:03)	2705010122	(17:07)	2705010123	(17:12)
2705010124	(17:16)	2705010126	(17:21)	2705010127	(17:44)
2705010128	(17:48)	2705010129	(17:53)	2705010130	(17:57)
2705010131	(18:01)	2705010132	(18:06)	2705010133	(18:10)
2705010135	(18:15)	2705010136	(18:19)	2705010137	(18:39)
2705010139	(18:51)	2705010138	(19:03)	2705010140	(19:07)
2705010702	(19:22)	2705010703	(19:25)	2705010705	(19:30)
2705010710	(19:34)	2705010712	(19:38)	2705010716	(19:43)
2705010717	(19:47)	2705020799	(19:51)	2705020800	(19:55)
2705020801	(19:59)	2705020803	(20:10)	2705020809	(20:14)
2705020810_5	(20:18)	2705020811_5	(20:22)	2705020812_5	(20:25)
2705020813	(20:30)	Wash	(20:41)		

COMMENT: Cr 610

Analyst: WBH

Approved By: [signature]

VB: T.n. 5/10/07

BATCH NUMBER for 070507a

Test Parameter:

SCA YR AG AL AS B_ BA BE CA CD CO CR CU FE K MG MN MO NA NI

Batch ID: 2705010118

2705010118	2705010125	2705010116
2705010117	2705010119	2705010120
2705010121	2705010122	2705010123
2705010124	2705010126	2705010127
2705010128	2705010129	2705010130
2705010131	2705010132	2705010133
2705010135	2705010136	

Batch ID: 2705010137

2705010137	2705010139	2705010138
2705010140	2705010702	2705010703
2705010705	2705010710	2705010712
2705010716	2705010717	2705020799
2705020800	2705020801	2705020803
2705020809	2705020810_5X	2705020811_5X
2705020812_5X	2705020813	

File ID: 070507a

Analyst CR 5/7/07

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
ICV	5/7/07	15:18	1	9.9988	10	95-105	99.9%
LINEARITY	5/7/07	15:22	1	0.0022	.0022		
ICSA	5/7/07	15:26	1	-0.0003	ND	80-120	
ICSAB	5/7/07	15:29	1	.25603	.256	80-120	102%
Wash	5/7/07	15:33	1	-0.0001	ND		
QC-25 1ppm	5/7/07	15:39	1	1.0463	1.0		
CCV	5/7/07	15:44	1	5.0326	5.03	90-110	100%
ICB	5/7/07	15:48	1	-0.0000	ND		
MRL	5/7/07	15:51	1	0.0103	.0103	50-150	102%
WASH	5/7/07	15:55	1	0.0000	0.0000		
MRL6010	5/7/07	15:59	1	0.0104	.0104		
MBLANK6010	5/7/07	16:03	1	0.0002	0.0002		
LCS	5/7/07	16:07	1	1.0018	1.00	85-115	100%
LCSD	5/7/07	16:11	1	.96995	.97	85-115	96.9%
2705010118	5/7/07	16:14	2	.91889	.920		
2705010118MS	5/7/07	16:18	2	1.8724	1.87	[0.954]	~~47.6~~ 95.6
2705010118MSD	5/7/07	16:22	2	1.8936	1.89	[0.975]	~~48.7~~ 97.5
2705010118T	5/7/07	16:22	2		2.00	70 - 130	
2705010125	5/7/07	16:26	2	0.0004	0.0004		
2705010125MS	5/7/07	16:29	2	1.0572	1.06	[1.057]	~~52.8~~ 106
CCV	5/7/07	16:32	1	5.0210	5.02	90-110	100%
CCB	5/7/07	16:38	1	0.0000	0.0000		
2705010125MSD	5/7/07	16:42	2	1.0337	1.03	[1.034]	~~51.6~~ 103
2705010125T	5/7/07	16:42	2		2.00	70 - 130	
2705010116	5/7/07	16:45	2	2.8395	2.8		
2705010117	5/7/07	16:49	2	1.0483	1.0		
2705010119	5/7/07	16:54	2	.50548	.510		
2705010120	5/7/07	16:58	2	.337	.340		
2705010121	5/7/07	17:03	2	.40461	.4		
2705010122	5/7/07	17:07	2	.18238	.180		
2705010123	5/7/07	17:12	2	.88283	.880		
2705010124	5/7/07	17:16	2	.72610	.730		
2705010126	5/7/07	17:21	2	.91007	.910		
CCV	5/7/07	17:29	1	5.1490	5.15	90-110	102%
CCB	5/7/07	17:37	1	0.0001	0.0000		
MCV	5/7/07	17:41	1	2.5698	2.57	90-110	102%
2705010127	5/7/07	17:44	2	1.6505	1.7		
2705010128	5/7/07	17:48	2	1.5422	1.5		
2705010129	5/7/07	17:53	2	0.0257	.026		
2705010130	5/7/07	17:57	2	0.0247	.025		
2705010131	5/7/07	18:01	2	.06728	.067		
2705010132	5/7/07	18:06	2	.10092	.1		
2705010133	5/7/07	18:10	2	.59009	.590		
2705010135	5/7/07	18:15	2	.70531	.710		
2705010136	5/7/07	18:19	2	0.0002	0.0002		
MBLANK6010	5/7/07	18:24	1	0.0003	0.0002		

File ID: 070507a

CR

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
CCV	5/7/07	18:27	1	5.1288	5.13	90-110	102%
CCB	5/7/07	18:30	1	0.0001	0.0000		
LCS	5/7/07	18:34	1	1.0036	1.00	85-115	100%
LCSD	5/7/07	18:36	1	.96309	.963	85-115	96.3%
2705010137	5/7/07	18:39	2	-0.0000	ND		
2705010137MS	5/7/07	18:43	2	1.0005	1.00	[1.001] ~~50.0 Q~~	100
2705010137MSD	5/7/07	18:47	2	.98665	.987	[0.987] ~~49.3 Q~~	98.7
2705010137T	5/7/07	18:47	2		2.00	70 - 130	
2705010139	5/7/07	18:51	2	1.6522	1.7		
2705010139MS	5/7/07	18:55	2	2.6583	2.66	[1.006] ~~50.3 Q~~	100
2705010139MSD	5/7/07	18:59	2	2.4464	2.45	[0.794] ~~39.7 Q~~	89.4
2705010139T	5/7/07	18:59	2		2.00	70 - 130	
2705010138	5/7/07	19:03	2	1.7451	1.7		
2705010140	5/7/07	19:07	2	.02177	.022		
CCV	5/7/07	19:12	1	5.1232	5.12	90-110	102%
CCB	5/7/07	19:15	1	0.0002	0.0002		
MCV	5/7/07	19:18	1	2.6091	2.61	90-110	104%
2705010702	5/7/07	19:22	2	0.0814	.081		
2705010703	5/7/07	19:25	2	0.0068	.0068		
2705010705	5/7/07	19:30	2	0.0006	0.0005		
2705010710	5/7/07	19:34	2	0.0030	.003		
2705010712	5/7/07	19:38	2	0.0008	0.0007		
2705010716	5/7/07	19:43	2	0.0896	.090		
2705010717	5/7/07	19:47	2	0.0003	0.0002		
2705020799	5/7/07	19:51	2	0.0662	.066		
2705020800	5/7/07	19:55	2	0.0169	.017		
2705020801	5/7/07	19:59	2	0.0152	.015		
CCV	5/7/07	20:03	1	5.1261	5.13	90-110	102%
CCB	5/7/07	20:06	1	0.0001	0.0001		
2705020803	5/7/07	20:10	2	0.0014	.0014		
2705020809	5/7/07	20:14	2	.50842	.510		
2705020810_5X	5/7/07	20:18	5	4.0087	4.0		
2705020811_5X	5/7/07	20:22	5	4.0701	4.1		
2705020812_5X	5/7/07	20:25	5	3.5946	3.6		
2705020813	5/7/07	20:30	2	0.0009	0.0009		
ICSA	5/7/07	20:33	1	-0.0001	ND	80-120	
ICSAB	5/7/07	20:37	1	.25690	.257	80-120	102%
Wash	5/7/07	20:41	1	0.0003	0.0002		
QC-25 1ppm	5/7/07	20:47	1	0.0075	.0075		
ECV	5/7/07	20:50	1	5.1561	5.16	90-110	103%
ECB	5/7/07	20:53	1	0.0002	0.0001		
MRL	5/7/07	20:57	1	0.0106	.0106	50-150	106%

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Sample ID	Time	SCA	YR	AG	AL	AS	B	BA	BE	CA	CD	CO
ICV	15:18	N/A	N/A	2.01/2	9.56/10	10.1/10	5.03	10.1/10	4.02/4	%100.0/100	4.93/5	10.0
LINEARITY	15:22	N/A	N/A	-.039	0.009	-.119	0.018	0.002	-.001	302/300	0.000	0.002
ICSA	15:26	N/A	N/A	-.040	252/250	-.259	0.075	0.003	-.001	256/250	0.002	0.001
ICSAB	15:29	N/A	N/A	0.160	251/250	-.256	0.068	0.270/.25	0.256/.25	257/250	0.519/.5	0.247/.25
Wash	15:33	N/A	N/A	-.0006	0.0011	-.0088	0.0030	-.0001	-.0000	-.0003	-.0001	0.0001
QC-25 1ppm	15:39	N/A	N/A	0.9953	0.9827	1.002	0.9538	1.080	1.008	1.056	1.008	1.076
CCV	15:44	N/A	N/A	1.01/1	4.84/5	4.82/5	2.48	5.12/5	2.07/2	51.1/50	2.51/2.5	5.12
ICB	15:48	N/A	N/A	-.0015	0.0054	0.0034	0.0165	0.0001	0.0000	0.0014	-.0000	0.0001
MRL	15:51	N/A	N/A	0.008/.01	0.059/.05	0.090/.1	0.058	0.021/.02	0.001/.001	1.04/1	0.005/.005	0.052/.05
WASH	15:55	N/A	N/A	-.0022	0.0026	-.0072	0.0063	-.0000	-.0000	-.0019	-.0001	0.0002
MRL6010	15:59	N/A	N/A	0.007/.01	0.055/.05	0.086/.1	0.050	0.020/.02	0.001/.001	1.02/1	0.005/.005	0.051/.05
MBLANK6010	16:03	N/A	N/A	-.0026	0.0023	-.0076	0.0010	-.0000	-.0000	0.0293	-.0001	-.0001
LCS	16:07	N/A	N/A	0.496/.5	1.97/2	1.02/1	0.486	1.01/1	0.052/.05	49.3/50	0.199/.2	1.03/1
LCSD	16:11	N/A	N/A	N/A	N/A	N/A	0.469	0.977/1	0.051/.05	47.8/50	0.206/.2	0.998/1
2705010118	16:14	N/A	N/A	N/A	N/A	N/A	10.95	0.0146	-.0019	675.8	0.0015	-.0000
2705010118MS	16:18	N/A	N/A	N/A	N/A	N/A	11.30	1.016	0.0487	707.2	0.2229	1.009
2705010118MSD	16:22	N/A	N/A	N/A	N/A	N/A	11.31	1.035	0.0501	708.1	0.2271	1.029
2705010125	16:26	N/A	N/A	N/A	N/A	N/A	0.0804	0.0003	-.0001	0.0888	-.0001	0.0003
2705010125MS	16:29	N/A	N/A	N/A	N/A	N/A	0.5538	1.068	0.0553	50.83	0.2217	1.085
CCV	16:32	N/A	N/A	N/A	N/A	N/A	2.48	5.11/5	2.09/2	51.2/50	2.57/2.5	5.10
CCB	16:38	N/A	N/A	N/A	N/A	N/A	0.0190	-.0001	-.0000	0.0010	-.0001	0.0000
2705010125MSD	16:42	N/A	N/A	N/A	N/A	N/A	0.5167	1.043	0.0538	50.01	0.2173	1.060
2705010116	16:45	N/A	N/A	N/A	N/A	N/A	11.53	0.0161	-.0017	595.2	0.0005	0.0002
2705010117	16:49	N/A	N/A	N/A	N/A	N/A	4.414	0.0204	-.0009	200.5	0.0003	0.0007
2705010119	16:54	N/A	N/A	N/A	N/A	N/A	10.91	0.0165	-.0017	635.1	0.0022	0.0003
2705010120	16:58	N/A	N/A	N/A	N/A	N/A	7.967	0.0126	-.0017	648.6	0.0019	-.0006
2705010121	17:03	N/A	N/A	N/A	N/A	N/A	6.090	0.0181	-.0016	619.8	0.0013	-.0000
2705010122	17:07	N/A	N/A	N/A	N/A	N/A	6.467	0.0172	-.0016	572.7	0.0012	-.0003
2705010123	17:12	N/A	N/A	N/A	N/A	N/A	6.119	0.0278	-.0012	289.7	0.0004	0.0003
2705010124	17:16	N/A	N/A	N/A	N/A	N/A	8.399	0.0114	-.0016	638.5	0.0016	0.0007
2705010126	17:21	N/A	N/A	N/A	N/A	N/A	10.85	0.0140	-.0018	660.0	0.0012	-.0004
CCV	17:29	N/A	N/A	N/A	N/A	N/A	2.60	5.24/5	2.13/2	51.1/50	2.63/2.5	5.21
CCB	17:37	N/A	N/A	N/A	N/A	N/A	0.0461	-.0000	0.0000	0.0043	0.0001	0.0000
MCV	17:41	N/A	N/A	N/A	N/A	N/A	N/A	2.63/2.5	1.05/1	25.3/25	1.30/1.25	2.60
2705010127	17:44	N/A	N/A	N/A	N/A	N/A	N/A	0.0135	-.0015	610.6	0.0016	0.0007
2705010128	17:48	N/A	N/A	N/A	N/A	N/A	N/A	0.0133	-.0017	674.7	0.0006	0.0004
2705010129	17:53	N/A	N/A	N/A	N/A	N/A	N/A	0.0562	-.0012	681.3	-.0008	0.0014
2705010130	17:57	N/A	N/A	N/A	N/A	N/A	N/A	0.0163	-.0016	752.9	-.0009	-.0000
2705010131	18:01	N/A	N/A	N/A	N/A	N/A	N/A	0.0211	-.0019	879.2	-.0008	0.0017
2705010132	18:06	N/A	N/A	N/A	N/A	N/A	N/A	0.0180	-.0013	389.3	0.0019	-.0001
2705010133	18:10	N/A	N/A	N/A	N/A	N/A	N/A	0.0610	-.0012	606.3	0.0003	0.0034
2705010135	18:15	N/A	N/A	N/A	N/A	N/A	N/A	0.0243	-.0015	633.1	0.0004	0.0000
2705010136	18:19	N/A	N/A	N/A	N/A	N/A	N/A	0.0346	-.0017	347.2	0.0004	0.0011
MBLANK6010	18:24	N/A	N/A	N/A	N/A	N/A	N/A	-.0000	-.0000	0.0296	-.0003	-.0000
CCV	18:27	N/A	N/A	N/A	N/A	N/A	N/A	5.23/5	2.13/2	51.7/50	2.62/2.5	5.21
CCB	18:30	N/A	N/A	N/A	N/A	N/A	N/A	-.0001	-.0000	0.0033	0.0001	0.0001
LCS	18:34	N/A	N/A	N/A	N/A	N/A	N/A	1.01/1	0.052/.05	48.6/50	0.214/.2	1.03/1
LCSD	18:36	N/A	N/A	N/A	N/A	N/A	N/A	0.973/1	0.051/.05	47.3/50	0.205/.2	0.988/1
2705010137	18:39	N/A	N/A	N/A	N/A	N/A	N/A	0.0320	-.0015	277.4	-.0001	0.0015

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Sample ID	Time	SCA	YR	AG	AL	AS	B	BA	BE	CA	CD	CO
2705010137MS	18:43	N/A	N/A	N/A	N/A	N/A	N/A	1.070	0.0514	333.1	0.2325	1.046
2705010137MSD	18:47	N/A	N/A	N/A	N/A	N/A	N/A	1.054	0.0502	322.1	0.2280	1.032
2705010139	18:51	N/A	N/A	N/A	N/A	N/A	N/A	0.0133	-.0016	612.0	0.0010	0.0006
2705010139MS	18:55	N/A	N/A	N/A	N/A	N/A	N/A	1.038	0.0503	667.3	0.2268	1.031
2705010139MSD	18:59	N/A	N/A	N/A	N/A	N/A	N/A	0.9620	0.0465	654.4	0.2105	0.9574
2705010138	19:03	N/A	N/A	N/A	N/A	N/A	N/A	0.0241	-.0015	600.0	0.0013	0.0003
2705010140	19:07	N/A	N/A	N/A	N/A	N/A	N/A	0.0187	-.0013	643.5	-.0002	0.0014
CCV	19:12	N/A	N/A	N/A	N/A	N/A	N/A	5.23/5	2.12/2	50.5/50	2.62/2.5	5.19
CCB	19:15	N/A	N/A	N/A	N/A	N/A	N/A	-.0001	0.0000	0.0046	0.0002	-.0000
MCV	19:18	N/A	N/A	N/A	N/A	N/A	N/A	2.70/2.5	1.08/1	25.8/25	1.34/1.25	2.67
2705010702	19:22	N/A	N/A	N/A	N/A	N/A	N/A	0.0795	-.0009	624.6	-.0007	0.0035
2705010703	19:25	N/A	N/A	N/A	N/A	N/A	N/A	0.0252	-.0009	578.2	-.0002	0.0096
2705010705	19:30	N/A	N/A	N/A	N/A	N/A	N/A	0.0213	-.0012	463.2	-.0011	0.0030
2705010710	19:34	N/A	N/A	N/A	N/A	N/A	N/A	0.0349	-.0007	215.3	0.0003	0.0088
2705010712	19:38	N/A	N/A	N/A	N/A	N/A	N/A	0.0241	-.0008	172.5	-.0001	0.0109
2705010716	19:43	N/A	N/A	N/A	N/A	N/A	N/A	0.0339	-.0014	588.6	-.0024	0.0005
2705010717	19:47	N/A	N/A	N/A	N/A	N/A	N/A	0.0000	0.0000	0.4215	-.0003	0.0001
2705020799	19:51	N/A	N/A	N/A	N/A	N/A	N/A	0.0275	-.0015	650.8	-.0016	0.0011
2705020800	19:55	N/A	N/A	N/A	N/A	N/A	N/A	0.0797	-.0012	525.9	-.0003	0.0019
2705020801	19:59	N/A	N/A	N/A	N/A	N/A	N/A	0.0594	-.0017	936.3	0.0009	0.0012
CCV	20:03	N/A	N/A	N/A	N/A	N/A	N/A	5.24/5	2.14/2	51.1/50	2.63/2.5	5.20
CCB	20:06	N/A	N/A	N/A	N/A	N/A	N/A	0.0000	0.0000	0.0064	-.0000	-.0001
2705020803	20:10	N/A	N/A	N/A	N/A	N/A	N/A	0.0435	-.0008	196.8	0.0003	0.0116
2705020809	20:14	N/A	N/A	N/A	N/A	N/A	N/A	0.1041	-.0015	616.2	0.0001	0.0039
2705020810_5X	20:18	N/A	N/A	N/A	N/A	N/A	N/A	0.2016	-.0019	%1135.9	-.0010	0.0036
2705020811_5X	20:22	N/A	N/A	N/A	N/A	N/A	N/A	0.1275	-.0019	684.6	-.0037	0.0016
2705020812_5X	20:25	N/A	N/A	N/A	N/A	N/A	N/A	0.0573	-.0022	974.4	-.0027	0.0005
2705020813	20:30	N/A	N/A	N/A	N/A	N/A	N/A	-.0000	-.0000	0.1751	-.0002	0.0003
ICSA	20:33	N/A	N/A	N/A	N/A	N/A	N/A	0.002	-.001	258/250	-.002	0.001
ICSAB	20:37	N/A	N/A	N/A	N/A	N/A	N/A	0.271/.25	0.261/.25	256/250	0.522/.5	0.251/.25
Wash	20:41	N/A	N/A	N/A	N/A	N/A	N/A	-.0001	0.0000	0.0022	-.0002	-.0000
QC-25 1ppm	20:47	N/A	N/A	N/A	N/A	N/A	N/A	-.0013	0.0005	0.7730	0.0060	-.0104
ECV	20:50	N/A	N/A	N/A	N/A	N/A	N/A	5.27/5	2.13/2	50.9/50	2.64/2.5	5.22
ECB	20:53	N/A	N/A	N/A	N/A	N/A	N/A	0.0000	0.0000	0.0023	0.0001	-.0001
MRL	20:57	N/A	N/A	N/A	N/A	N/A	N/A	0.021/.02	0.001/.001	1.04/1	0.006/.005	0.054/.05

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Sample ID	Time	CR	CU	FE	K	MG	MN	MO	NA	NI	PB	SB
ICV	15:18	%10.00/10	10.0/10	10.0/10	100/100	100/100	10.0/10	10.0/10	101/100	10.0/10	10.1/10	9.90/10
LINEARITY	15:22	0.002	-.008	100	312	193	-0.003	-.001	310/300	-.001	-.004	0.011
ICSA	15:26	-.000	-.009	102/100	0.125	244/250	0.002	-.002	0.100	-.001	-.034	0.012
ICSAB	15:29	0.256/.25	0.261/.25	101/100	0.080	244/250	0.270/.25	-.002	0.042	0.482/.5	0.477/.5	0.009
Wash	15:33	-.0001	0.0004	0.0002	0.0345	0.0013	-.0000	-.0001	0.0064	-.0001	-.0008	-.0035
QC-25 1ppm	15:39	1.046	0.9938	1.062	10.11	1.101	1.096	0.9944	1.121	1.102	1.093	0.9824
CCV	15:44	5.03/5	5.02/5	5.18/5	49.4/50	51.6/50	5.17/5	5.06/5	51.1/50	5.19/5	5.14/5	4.85/5
ICB	15:48	-.0000	0.0001	-.0005	0.0404	0.0013	0.0001	0.0000	-.0024	0.0004	0.0007	0.0019
MRL	15:51	0.010/.01	0.010/.01	0.022/.02	0.973/1	0.108/.1	0.002/.002	0.020/.02	1.05/1	0.022/.02	0.020/.02	0.039/.05
WASH	15:55	0.0000	0.0003	-.0007	0.0295	0.0002	0.0000	-.0004	0.0041	0.0000	-.0016	0.0007
MRL6010	15:59	0.010/.01	0.010/.01	0.022/.02	0.959/1	0.104/.1	0.002/.002	0.019/.02	1.06/1	0.021/.02	0.017/.02	0.045/.05
MBLANK6010	16:03	0.0002	0.0002	0.0010	0.0230	0.0009	-.0001	-.0005	0.0520	0.0002	-.0017	-.0030
LCS	16:07	1.00/1	1.01/1	5.24/5	19.7/20	20.7/20	0.522/.5	1.01/1	51.5/50	0.517/.5	1.05/1	0.485/.5
LCSD	16:11	0.970/1	0.979/1	4.99/5	19.1/20	19.9/20	0.507/.5	0.974/1	50.2/50	0.504/.5	1.03/1	N/A
2705010118	16:14	0.9189	0.0068	-.0058	14.61	268.4	0.0103	0.0352	%1473.2	0.0010	-.0202	N/A
2705010118MS	16:18	1.872	1.095	5.068	35.35	280.9	0.5272	1.041	%1502.0	0.4922	0.9820	N/A
2705010118MSD	16:22	1.894	1.118	5.126	34.80	281.6	0.5384	1.058	%1509.9	0.5029	0.9904	N/A
2705010125	16:26	0.0004	0.0005	0.0074	0.0767	0.0147	0.0004	-.0005	0.2978	0.0003	-.0030	N/A
2705010125MS	16:29	1.057	1.057	5.391	20.08	21.02	0.5559	1.057	53.78	0.5493	1.091	N/A
CCV	16:32	5.02/5	5.09/5	5.27/5	50.4/50	51.8/50	5.21/5	5.05/5	53.3/50	5.17/5	5.19/5	N/A
CCB	16:38	0.0000	0.0003	-.0012	0.0516	0.0005	-.0001	-.0001	0.0534	0.0002	-.0026	N/A
2705010125MSD	16:42	1.034	1.028	5.257	19.70	20.74	0.5417	1.033	53.24	0.5375	1.085	N/A
2705010116	16:45	2.840	0.0054	0.0338	15.48	250.9	0.0720	0.0493	%1132.5	0.0033	-.0219	N/A
2705010117	16:49	1.048	0.0034	0.1243	11.00	98.05	0.0400	0.0174	543.4	0.0001	-.0158	N/A
2705010119	16:54	0.5055	0.0054	0.0412	14.19	269.1	0.0066	0.0372	%1566.3	-.0004	-.0204	N/A
2705010120	16:58	0.3370	0.0053	0.0205	13.61	249.3	0.0050	0.0348	%1366.4	-.0007	-.0221	N/A
2705010121	17:03	0.4046	0.0047	0.0001	16.07	263.2	0.0018	0.0335	%1279.9	-.0009	-.0229	N/A
2705010122	17:07	0.1824	0.0053	0.0335	13.63	280.6	0.0060	0.0371	%1469.9	-.0015	-.0188	N/A
2705010123	17:12	0.8828	0.0053	-.0067	15.79	126.8	0.0260	0.0334	958.2	0.0003	-.0137	N/A
2705010124	17:16	0.7261	0.0065	0.0421	13.46	231.5	0.2974	0.0311	%1344.2	-.0000	-.0219	N/A
2705010126	17:21	0.9101	0.0051	-.0128	14.20	263.1	0.0097	0.0337	%1547.9	0.0003	-.0230	N/A
CCV	17:29	5.15/5	5.12/5	5.26/5	50.6/50	51.7/50	5.25/5	5.18/5	56.3(50)	5.29/5	5.33/5	N/A
CCB	17:37	0.0001	0.0001	-.0017	0.0441	0.0019	-.0001	-.0003	N/A	-.0002	-.0027	N/A
MCV	17:41	2.57/2.5	2.52/2.5	2.58/2.5	24.7/25	25.8/25	2.64/2.5	2.57/2.5	N/A	2.65/2.5	2.65/2.5	N/A
2705010127	17:44	1.651	0.0060	-.0083	16.68	207.6	0.0363	0.0373	N/A	0.0009	-.0201	N/A
2705010128	17:48	1.542	0.0066	0.0096	15.29	267.2	0.0008	0.1007	N/A	0.0020	-.0269	N/A
2705010129	17:53	0.0257	0.0089	2.132	18.34	291.1	0.0801	0.0460	N/A	0.0015	-.0208	N/A
2705010130	17:57	0.0247	0.0056	0.0791	19.69	276.2	0.0024	0.0522	N/A	-.0016	-.0245	N/A
2705010131	18:01	0.0673	0.0074	0.0854	27.24	385.8	0.0044	0.1055	N/A	-.0016	-.0306	N/A
2705010132	18:06	0.1009	0.0051	0.0335	16.46	178.5	0.0008	0.0634	N/A	-.0008	-.0194	N/A
2705010133	18:10	0.5901	0.0076	1.586	27.53	265.0	0.9746	0.0164	N/A	0.0042	-.0207	N/A
2705010135	18:15	0.7053	0.0063	0.0342	32.66	268.4	0.0025	0.0446	N/A	-.0004	-.0254	N/A
2705010136	18:19	0.0002	0.0083	-.0070	40.59	162.9	1.087	0.0703	N/A	0.0009	-.0169	N/A
MBLANK6010	18:24	0.0003	0.0002	0.0015	0.0710	0.0057	-.0001	-.0006	N/A	0.0002	-.0029	N/A
CCV	18:27	5.13/5	5.19/5	5.16/5	50.0/50	52.2/50	5.30/5	5.17/5	N/A	5.28/5	5.31/5	N/A
CCB	18:30	0.0001	0.0003	-.0004	0.0841	0.0040	-.0001	-.0000	N/A	0.0001	-.0022	N/A
LCS	18:34	1.00/1	1.01/1	4.98/5	19.2/20	19.9/20	0.521/.5	1.01/1	N/A	0.521/.5	1.05/1	N/A
LCSD	18:36	0.963/1	0.985/1	4.88/5	18.7/20	19.5/20	0.506/.5	0.968/1	N/A	0.500/.5	1.02/1	N/A
2705010137	18:39	-.0000	0.0083	-.0107	33.49	149.5	1.414	0.0622	N/A	0.0006	-.0156	N/A

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Sample ID	Time	CR	CU	FE	K	MG	MN	MO	NA	NI	PB	SB
2705010137MS	18:43	1.001	1.170	5.132	56.06	172.9	1.981	1.100	N/A	0.5184	1.027	N/A
2705010137MSD	18:47	0.9867	1.144	5.075	55.01	167.6	1.920	1.082	N/A	0.5120	1.013	N/A
2705010139	18:51	1.652	0.0050	-.0100	16.69	207.6	0.0369	0.0370	N/A	0.0006	-.0245	N/A
2705010139MS	18:55	2.658	1.123	5.053	38.05	229.4	0.5664	1.062	N/A	0.5092	1.008	N/A
2705010139MSD	18:59	2.446	1.023	4.931	37.06	224.4	0.5197	0.9832	N/A	0.4723	0.9405	N/A
2705010138	19:03	1.745	0.0114	0.1910	19.06	206.9	0.1068	0.0284	N/A	0.0016	0.0014	N/A
2705010140	19:07	0.0218	0.0062	0.4181	16.78	270.0	0.0434	0.0438	N/A	-.0006	-.0206	N/A
CCV	19:12	5.12/5	5.14/5	5.07/5	49.2/50	50.8/50	5.24/5	5.17/5	N/A	5.26/5	5.30/5	N/A
CCB	19:15	0.0002	0.0003	-.0010	0.0929	0.0045	-.0001	-.0001	N/A	0.0001	-.0025	N/A
MCV	19:18	2.61/2.5	2.58/2.5	2.59/2.5	25.0/25	26.2/25	2.71/2.5	2.63/2.5	N/A	2.73/2.5	2.73/2.5	N/A
2705010702	19:22	0.0814	0.0167	3.855	80.06	418.8	0.6657	0.2868	N/A	0.0085	-.0199	N/A
2705010703	19:25	0.0068	0.0114	1.324	49.88	317.7	1.358	0.2822	N/A	0.0174	-.0165	N/A
2705010705	19:30	0.0006	0.0046	0.0371	31.81	228.2	0.4582	0.0273	N/A	0.0103	-.0194	N/A
2705010710	19:34	0.0030	0.0053	0.3529	20.57	64.43	0.3644	0.0259	N/A	0.0258	-.0144	N/A
2705010712	19:38	0.0008	0.0064	0.0891	25.07	74.82	0.8640	0.0256	N/A	0.0262	-.0154	N/A
2705010716	19:43	0.0896	0.0053	0.7009	91.18	328.3	0.0187	0.3076	N/A	0.0004	-.0268	N/A
2705010717	19:47	0.0003	0.0005	0.0019	0.1299	0.0188	0.0001	-.0013	N/A	0.0003	-.0066	N/A
2705020799	19:51	0.0662	0.0052	0.2198	85.10	379.4	0.0346	0.6851	N/A	0.0015	-.0248	N/A
2705020800	19:55	0.0169	0.0112	4.450	61.77	315.2	0.1197	0.5801	N/A	0.0047	-.0233	N/A
2705020801	19:59	0.0152	0.0107	2.910	61.70	343.4	0.0899	0.4297	N/A	0.0042	-.0253	N/A
CCV	20:03	5.13/5	5.20/5	5.20/5	50.7/50	51.6/50	5.31/5	5.18/5	N/A	5.27/5	5.32/5	N/A
CCB	20:06	0.0001	0.0001	-.0013	0.0624	0.0056	-.0002	0.0002	N/A	0.0003	-.0031	N/A
2705020803	20:10	0.0014	0.0065	0.4825	27.09	86.37	1.155	0.0271	N/A	0.0264	-.0168	N/A
2705020809	20:14	0.5084	0.0102	3.843	26.61	339.2	0.2406	0.1836	N/A	0.0082	-.0254	N/A
2705020810_5X	20:18	4.009	0.0180	10.33	18.84	303.3	0.2757	0.0989	N/A	0.0151	-.0425	N/A
2705020811_5X	20:22	4.070	0.0138	6.910	17.03	279.4	0.1392	0.1029	N/A	0.0143	-.0362	N/A
2705020812_5X	20:25	3.595	0.0101	2.207	14.13	269.8	0.1015	0.0514	N/A	0.0041	-.0528	N/A
2705020813	20:30	0.0009	0.0004	0.0040	0.1663	0.0192	-.0003	-.0013	N/A	0.0003	-.0068	N/A
ICSA	20:33	-.000	-.009	100/100	0.178	243/250	0.002	-.003	N/A	-.001	-.039	N/A
ICSAB	20:37	0.257/.25	0.266/.25	100/100	0.092	242/250	0.272/.25	-.003	N/A	0.491/.5	0.492/.5	N/A
Wash	20:41	0.0003	0.0004	0.0003	0.0039	0.0060	-.0003	-.0005	N/A	-.0001	-.0044	N/A
QC-25 1ppm	20:47	0.0075	0.0200	0.7804	7.562	0.8122	0.0008	0.0069	N/A	-.0098	0.0008	N/A
ECV	20:50	5.16/5	5.17/5	5.14/5	49.7/50	51.4/50	5.29/5	5.20/5	N/A	5.29/5	5.35/5	N/A
ECB	20:53	0.0002	0.0003	-.0016	0.0299	0.0040	-.0003	0.0003	N/A	-.0000	-.0024	N/A
MRL	20:57	0.011/.01	0.010/.01	0.021/.02	1.01/1	0.111/.1	0.002/.002	0.021/.02	N/A	0.022/.02	0.019/.02	N/A

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Sample ID	Time	SE	TL	V	ZN	ALX	BEX
ICV	15:18	10.1/10	10.1/10	10.1/10	9.97/10	10.1/10	4.02/4
LINEARITY	15:22	-.016	-.092	0.002	0.023	0.005	-.001
ICSA	15:26	-.026	-.081	0.001	0.018	N/A	-.001
ICSAB	15:29	-.035	-.081	0.258/.25	0.559/.5	N/A	0.256/.25
Wash	15:33	0.0001	-.0013	-.0000	0.0002	0.0015	-.0000
QC-25 1ppm	15:39	0.9871	1.064	1.015	1.090	0.9590	1.007
CCV	15:44	5.21/5	5.22/5	5.09/5	5.20/5	5.03/5	2.07/2
ICB	15:48	-.0033	-.0018	0.0003	0.0001	0.0003	0.0000
MRL	15:51	0.098/.1	0.105/.1	0.002/.002	0.021/.02	0.050/.05	0.001/.001
WASH	15:55	0.0001	-.0029	0.0001	-.0002	-.0003	-.0000
MRL6010	15:59	0.099/.1	0.098/.1	0.002/.002	0.031(.02)	0.049/.05	0.001/.001
MBLANK6010	16:03	0.0016	-.0018	0.0000	0.0068	0.0028	-.0000
LCS	16:07	1.07/1	1.04/1	1.01/1	1.07/1	1.95/2	0.052/.05
LCSD	16:11	N/A	N/A	0.974/1	1.04/1	N/A	N/A
2705010118	16:14	N/A	N/A	0.1514	0.0058	N/A	N/A
2705010118MS	16:18	N/A	N/A	1.147	1.124	N/A	N/A
2705010118MSD	16:22	N/A	N/A	1.172	1.152	N/A	N/A
2705010125	16:26	N/A	N/A	0.0002	0.0119	N/A	N/A
2705010125MS	16:29	N/A	N/A	1.062	1.117	N/A	N/A
CCV	16:32	N/A	N/A	5.13/5	5.19/5	N/A	N/A
CCB	16:38	N/A	N/A	0.0001	-.0002	N/A	N/A
2705010125MSD	16:42	N/A	N/A	1.029	1.098	N/A	N/A
2705010116	16:45	N/A	N/A	0.1016	0.0132	N/A	N/A
2705010117	16:49	N/A	N/A	0.1175	0.0148	N/A	N/A
2705010119	16:54	N/A	N/A	0.1134	0.0036	N/A	N/A
2705010120	16:58	N/A	N/A	0.1066	0.0144	N/A	N/A
2705010121	17:03	N/A	N/A	0.0672	0.0165	N/A	N/A
2705010122	17:07	N/A	N/A	0.0902	0.0158	N/A	N/A
2705010123	17:12	N/A	N/A	0.1483	0.0074	N/A	N/A
2705010124	17:16	N/A	N/A	0.1480	0.0122	N/A	N/A
2705010126	17:21	N/A	N/A	0.1471	0.0080	N/A	N/A
CCV	17:29	N/A	N/A	5.16/5	5.31/5	N/A	N/A
CCB	17:37	N/A	N/A	0.0001	0.0000	N/A	N/A
MCV	17:41	N/A	N/A	2.55/2.5	2.66/2.5	N/A	N/A
2705010127	17:44	N/A	N/A	0.0775	0.0177	N/A	N/A
2705010128	17:48	N/A	N/A	0.0571	0.0109	N/A	N/A
2705010129	17:53	N/A	N/A	0.0390	0.0247	N/A	N/A
2705010130	17:57	N/A	N/A	0.0361	0.0055	N/A	N/A
2705010131	18:01	N/A	N/A	0.0314	0.0065	N/A	N/A
2705010132	18:06	N/A	N/A	0.0812	0.0167	N/A	N/A
2705010133	18:10	N/A	N/A	0.0429	0.0274	N/A	N/A
2705010135	18:15	N/A	N/A	0.0636	0.0814	N/A	N/A
2705010136	18:19	N/A	N/A	0.1495	0.0114	N/A	N/A
MBLANK6010	18:24	N/A	N/A	0.0001	0.0047	N/A	N/A
CCV	18:27	N/A	N/A	5.20/5	5.31/5	N/A	N/A
CCB	18:30	N/A	N/A	0.0002	-.0000	N/A	N/A
LCS	18:34	N/A	N/A	1.00/1	1.08/1	N/A	N/A
LCSD	18:36	N/A	N/A	0.975/1	1.03/1	N/A	N/A
2705010137	18:39	N/A	N/A	0.1600	0.0122	N/A	N/A

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Sample ID	Time	SE	TL	V	ZN	ALX	BEX
2705010137MS	18:43	N/A	N/A	1.193	1.191	N/A	N/A
2705010137MSD	18:47	N/A	N/A	1.168	1.161	N/A	N/A
2705010139	18:51	N/A	N/A	0.0774	0.0110	N/A	N/A
2705010139MS	18:55	N/A	N/A	1.099	1.156	N/A	N/A
2705010139MSD	18:59	N/A	N/A	1.009	1.074	N/A	N/A
2705010138	19:03	N/A	N/A	0.0873	0.0547	N/A	N/A
2705010140	19:07	N/A	N/A	0.0340	0.0246	N/A	N/A
CCV	19:12	N/A	N/A	5.15/5	5.30/5	N/A	N/A
CCB	19:15	N/A	N/A	0.0001	0.0000	N/A	N/A
MCV	19:18	N/A	N/A	2.62/2.5	2.74/2.5	N/A	N/A
2705010702	19:22	N/A	N/A	0.0452	0.0794	N/A	N/A
2705010703	19:25	N/A	N/A	0.0450	0.0351	N/A	N/A
2705010705	19:30	N/A	N/A	0.0260	0.0186	N/A	N/A
2705010710	19:34	N/A	N/A	0.0215	0.0202	N/A	N/A
2705010712	19:38	N/A	N/A	0.0731	0.0196	N/A	N/A
2705010716	19:43	N/A	N/A	0.0171	0.0129	N/A	N/A
2705010717	19:47	N/A	N/A	0.0003	0.0207	N/A	N/A
2705020799	19:51	N/A	N/A	0.0239	0.0203	N/A	N/A
2705020800	19:55	N/A	N/A	0.0460	0.0342	N/A	N/A
2705020801	19:59	N/A	N/A	0.0297	0.0216	N/A	N/A
CCV	20:03	N/A	N/A	5.22/5	5.32/5	N/A	N/A
CCB	20:06	N/A	N/A	0.0002	-.0001	N/A	N/A
2705020803	20:10	N/A	N/A	0.0917	0.0201	N/A	N/A
2705020809	20:14	N/A	N/A	0.0545	0.0274	N/A	N/A
2705020810_5X	20:18	N/A	N/A	0.0999	0.0560	N/A	N/A
2705020811_5X	20:22	N/A	N/A	0.1032	0.0373	N/A	N/A
2705020812_5X	20:25	N/A	N/A	0.0572	0.0137	N/A	N/A
2705020813	20:30	N/A	N/A	0.0003	0.0150	N/A	N/A
ICSA	20:33	N/A	N/A	0.001	0.019	N/A	N/A
ICSAB	20:37	N/A	N/A	0.264/.25	0.565/.5	N/A	N/A
Wash	20:41	N/A	N/A	0.0000	-.0001	N/A	N/A
QC-25 1ppm	20:47	N/A	N/A	0.0068	0.0065	N/A	N/A
ECV	20:50	N/A	N/A	5.20/5	5.34/5	N/A	N/A
ECB	20:53	N/A	N/A	0.0001	0.0001	N/A	N/A
MRL	20:57	N/A	N/A	0.002/.002	0.023/.02	N/A	N/A

Analysis Begun

Start Time: 5/7/2007 15:11:50
Logged In Analyst: Owner
Spectrometer Model: Optima 4300 DV, S/N 077N2121801
Plasma On Time: 5/7/2007 06:37:11
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Owner\Sample Information\070507a.sif
Batch ID: 070507a
Results Data Set: 070507A
Results Library: C:\pe\Owner\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 0
Date Collected: 5/7/2007 15:11:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sca	400162.7	1812.24	0.45%	100	%
Yr	321927.3	5920.35	1.84%	100	%
Agt	938.0	17.21	1.84%	[0.00]	mg/L
Alt	31.7	12.31	38.86%	[0.00]	mg/L
Ast	18.4	0.27	1.49%	[0.00]	mg/L
B_t	493.2	2.43	0.49%	[0.00]	mg/L
Bat	-30.1	1.64	5.46%	[0.00]	mg/L
Bet	-7198.7	85.72	1.19%	[0.00]	mg/L
Cat	954.1	0.22	0.02%	[0.00]	mg/L
Cdt	42.9	2.19	5.11%	[0.00]	mg/L
Cot	-56.6	2.00	3.54%	[0.00]	mg/L
Crt	198.9	9.66	4.85%	[0.00]	mg/L
Cut	4316.8	35.94	0.83%	[0.00]	mg/L
Fet	-23.3	1.00	4.31%	[0.00]	mg/L
Kt	-98.6	21.89	22.21%	[0.00]	mg/L
Mgt	12.6	1.28	10.14%	[0.00]	mg/L
Mnt	253.4	1.39	0.55%	[0.00]	mg/L
Mot	12.9	4.74	36.69%	[0.00]	mg/L
Nat	-405.9	40.44	9.96%	[0.00]	mg/L
Nit	-55.4	3.17	5.73%	[0.00]	mg/L
Pbt	-7.6	2.12	27.89%	[0.00]	mg/L
Sbt	12.7	2.96	23.42%	[0.00]	mg/L
Set	2.2	3.45	156.83%	[0.00]	mg/L
Tlt	-12.9	3.70	28.77%	[0.00]	mg/L
Vt	122.9	19.19	15.61%	[0.00]	mg/L
Znt	78.8	1.89	2.40%	[0.00]	mg/L
Alxt	245.7	25.01	10.18%	[0.00]	ug/L
Bext	-7198.7	85.72	1.19%	[0.00]	ug/L

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

Autosampler Location: 15
Date Collected: 5/7/2007 15:15:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Standard 2

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: Standard 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sca	361226.7	522.18	0.14%	90.3	%
Yr	300776.4	947.06	0.31%	93.4	%
Agt	478996.3	470.29	0.10%	[2]	mg/L
Alt	49405.0	23.10	0.05%	[10]	mg/L
Ast	15925.2	110.05	0.69%	[10]	mg/L
B_t	134778.0	73.35	0.05%	[5.02]	mg/L
Bat	556637.1	207.17	0.04%	[10]	mg/L
Bet	9470583.7	41631.20	0.44%	[4.01]	mg/L
Cat	1180684.1	3010.01	0.25%	[100]	mg/L
Cdt	104072.9	79.70	0.08%	[5.01]	mg/L
Cot	196134.4	204.33	0.10%	[10]	mg/L
Crt	628873.8	1014.19	0.16%	[9.97]	mg/L
Cut	3492187.0	3129.43	0.09%	[10]	mg/L
Fet	24642.8	2.00	0.01%	[9.98]	mg/L
Kt	136671.9	385.40	0.28%	[100]	mg/L
Mgt	797789.1	2773.78	0.35%	[100]	mg/L
Mnt	4527403.8	1414.46	0.03%	[10]	mg/L
Mot	96166.4	98.65	0.10%	[9.98]	mg/L
Nat	236167.5	337.27	0.14%	[100]	mg/L
Nit	170110.2	153.76	0.09%	[10]	mg/L
Pbt	34624.1	234.08	0.68%	[10]	mg/L
Sbt	16833.6	84.48	0.50%	[10]	mg/L
Set	10261.2	63.89	0.62%	[10]	mg/L
Tlt	21584.4	185.06	0.86%	[10]	mg/L
Vt	1430725.3	2460.25	0.17%	[10]	mg/L
Znt	364637.5	45.73	0.01%	[10]	mg/L
Alxt	770548.9	1795.39	0.23%	[10000]	ug/L
Bext	9470583.7	41631.20	0.44%	[4010]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag	1	Lin, Calc Int	0.0	239500	0.00000	1.000000	
Al	1	Lin, Calc Int	0.0	4941	0.00000	1.000000	
As	1	Lin, Calc Int	0.0	1593	0.00000	1.000000	
B_	1	Lin, Calc Int	0.0	26850	0.00000	1.000000	
Ba	1	Lin, Calc Int	0.0	55660	0.00000	1.000000	
Be	1	Lin, Calc Int	0.0	2362000	0.00000	1.000000	
Ca	1	Lin, Calc Int	-0.0	11810	0.00000	1.000000	
Cd	1	Lin, Calc Int	0.0	20770	0.00000	1.000000	
Co	1	Lin, Calc Int	0.0	19610	0.00000	1.000000	
Cr	1	Lin, Calc Int	0.0	63080	0.00000	1.000000	
Cu	1	Lin, Calc Int	0.0	349200	0.00000	1.000000	
Fe	1	Lin, Calc Int	-0.0	2469	0.00000	1.000000	
K	1	Lin, Calc Int	0.0	1367	0.00000	1.000000	
Mg	1	Lin, Calc Int	0.0	7978	0.00000	1.000000	
Mn	1	Lin, Calc Int	0.0	452700	0.00000	1.000000	
Mo	1	Lin, Calc Int	0.0	9636	0.00000	1.000000	
Na	1	Lin, Calc Int	-0.0	2362	0.00000	1.000000	
Ni	1	Lin, Calc Int	0.0	17010	0.00000	1.000000	
Pb	1	Lin, Calc Int	0.0	3462	0.00000	1.000000	
Sb	1	Lin, Calc Int	0.0	1683	0.00000	1.000000	
Se	1	Lin, Calc Int	0.0	1026	0.00000	1.000000	

Tl	1	Lin, Calc Int	-0.0	2158	0.00000	1.000000
V	1	Lin, Calc Int	0.0	143100	0.00000	1.000000
Zn	1	Lin, Calc Int	0.0	36460	0.00000	1.000000
Alx	1	Lin, Calc Int	0.0	77.05	0.00000	1.000000
Bex	1	Lin, Calc Int	-0.0	2362	0.00000	1.000000

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

Autosampler Location: 15
Date Collected: 5/7/2007 15:18:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	359874.6	89.9	%	0.02				0.03%
Yr	299803.8	93.1	%	0.27				0.29%
Agt	480414.4	2.01	mg/L	0.002	2.01	mg/L	0.002	0.08%
QC value within limits for Ag		Recovery = 100.30%						
Alt	49359.5	9.56	mg/L	0.037	9.56	mg/L	0.037	0.39%
QC value within limits for Al		Recovery = 95.61%						
Ast	15990.4	10.1	mg/L	0.01	10.1	mg/L	0.01	0.10%
QC value within limits for As		Recovery = 100.73%						
B_t	135579.0	5.03	mg/L	0.002	5.03	mg/L	0.002	0.04%
QC value within limits for B_		Recovery = 100.57%						
Bat	559159.4	10.1	mg/L	0.02	10.1	mg/L	0.02	0.16%
QC value within limits for Ba		Recovery = 100.51%						
Bet	9499402.9	4.02	mg/L	0.002	4.02	mg/L	0.002	0.06%
QC value within limits for Be		Recovery = 100.58%						
Cat	1180207.3	100.0	mg/L	0.35	100.0	mg/L	0.35	0.35%
QC value within limits for Ca		Recovery = 99.96%						
Cdt	104369.2	4.93	mg/L	0.008	4.93	mg/L	0.008	0.17%
QC value within limits for Cd		Recovery = 98.56%						
Cot	196697.2	10.0	mg/L	0.01	10.0	mg/L	0.01	0.08%
QC value within limits for Co		Recovery = 100.29%						
Crt	630690.5	10.00	mg/L	0.007	10.00	mg/L	0.007	0.07%
QC value within limits for Cr		Recovery = 99.99%						
Cut	3507246.3	10.0	mg/L	0.03	10.0	mg/L	0.03	0.29%
QC value within limits for Cu		Recovery = 100.47%						
Fet	24748.6	10.0	mg/L	0.03	10.0	mg/L	0.03	0.26%
QC value within limits for Fe		Recovery = 100.27%						
Kt	136723.6	100	mg/L	0.1	100	mg/L	0.1	0.06%
QC value within limits for K		Recovery = 100.04%						
Mgt	801419.3	100	mg/L	0.4	100	mg/L	0.4	0.43%
QC value within limits for Mg		Recovery = 100.47%						
Mnt	4540793.9	10.0	mg/L	0.01	10.0	mg/L	0.01	0.06%
QC value within limits for Mn		Recovery = 100.30%						
Mot	96615.9	10.0	mg/L	0.02	10.0	mg/L	0.02	0.21%
QC value within limits for Mo		Recovery = 100.27%						
Nat	237825.5	101	mg/L	0.4	101	mg/L	0.4	0.43%
QC value within limits for Na		Recovery = 100.70%						
Nit	170487.9	10.0	mg/L	0.02	10.0	mg/L	0.02	0.16%
QC value within limits for Ni		Recovery = 100.19%						
Pbt	34916.4	10.1	mg/L	0.02	10.1	mg/L	0.02	0.17%
QC value within limits for Pb		Recovery = 100.84%						
Sbt	16996.1	9.90	mg/L	0.003	9.90	mg/L	0.003	0.03%
QC value within limits for Sb		Recovery = 99.03%						
Set	10347.1	10.1	mg/L	0.03	10.1	mg/L	0.03	0.26%
QC value within limits for Se		Recovery = 101.07%						
Tlt	21748.0	10.1	mg/L	0.01	10.1	mg/L	0.01	0.13%
QC value within limits for Tl		Recovery = 100.61%						
Vt	1435978.3	10.1	mg/L	0.01	10.1	mg/L	0.01	0.12%
QC value within limits for V		Recovery = 100.87%						
Znt	365749.9	9.97	mg/L	0.009	9.97	mg/L	0.009	0.09%
QC value within limits for Zn		Recovery = 99.70%						
Alxt	775260.8	10100	ug/L	80.8	10.1	mg/L	0.08	0.80%
QC value within limits for Alx		Recovery = 100.61%						
Bext	9499402.9	4020	ug/L	2.3	4.02	mg/L	0.002	0.06%
QC value within limits for Bex		Recovery = 100.56%						

All analyte(s) passed QC.

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

Autosampler Location: 9
Date Collected: 5/7/2007 15:22:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LINEARITY

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: LINEARITY

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	340301.5	85.0	%	0.15				0.17%
Yr	288640.0	89.7	%	0.11				0.12%
Agt	-9399.0	-0.0392	mg/L	0.00016	-0.0392	mg/L	0.00016	0.41%
QC value within limits for Ag		Recovery = Not calculated						
Alt	43.5	0.00885	mg/L	0.011219	0.00885	mg/L	0.011219	126.76%
QC value within limits for Al		Recovery = Not calculated						
Ast	-189.3	-0.119	mg/L	0.0007	-0.119	mg/L	0.0007	0.62%
QC value within limits for As		Recovery = Not calculated						
B_t	484.8	0.0181	mg/L	0.00312	0.0181	mg/L	0.00312	17.30%
QC value within limits for B_		Recovery = Not calculated						
Bat	98.5	0.00177	mg/L	0.000118	0.00177	mg/L	0.000118	6.69%
QC value within limits for Ba		Recovery = Not calculated						
Bet	-1611.5	-0.00068	mg/L	0.000009	-0.00068	mg/L	0.000009	1.33%
QC value within limits for Be		Recovery = Not calculated						
Cat	3565225.8	302	mg/L	3.4	302	mg/L	3.4	1.11%
QC value within limits for Ca		Recovery = 100.65%						
Cdt	-29.4	0.00021	mg/L	0.000061	0.00021	mg/L	0.000061	28.72%
QC value within limits for Cd		Recovery = Not calculated						
Cot	47.8	0.00244	mg/L	0.000154	0.00244	mg/L	0.000154	6.31%
QC value within limits for Co		Recovery = Not calculated						
Crt	140.6	0.00223	mg/L	0.000057	0.00223	mg/L	0.000057	2.54%
QC value within limits for Cr		Recovery = Not calculated						
Cut	-2716.5	-0.00778	mg/L	0.000057	-0.00778	mg/L	0.000057	0.74%
QC value within limits for Cu		Recovery = Not calculated						
Fet	248100.8	100	mg/L	0.2	100	mg/L	0.2	0.16%
QC value within limits for Fe		Recovery = 100.48%						
Kt	425779.1	312	mg/L	3.6	312	mg/L	3.6	1.15%
QC value within limits for K		Recovery = 103.84%						
Mgt	1539691.7	193	mg/L	1.9	193	mg/L	1.9	0.96%
QC value within limits for Mg		Recovery = Not calculated						
Mnt	1307.8	0.00289	mg/L	0.000034	0.00289	mg/L	0.000034	1.18%
QC value within limits for Mn		Recovery = Not calculated						
Mot	-10.8	-0.00112	mg/L	0.000655	-0.00112	mg/L	0.000655	58.33%
QC value within limits for Mo		Recovery = Not calculated						
Nat	731016.8	310	mg/L	2.2	310	mg/L	2.2	0.71%
QC value within limits for Na		Recovery = 103.18%						
Nit	-15.9	-0.00094	mg/L	0.000059	-0.00094	mg/L	0.000059	6.22%
QC value within limits for Ni		Recovery = Not calculated						
Pbt	-12.6	-0.00364	mg/L	0.000107	-0.00364	mg/L	0.000107	2.93%
QC value within limits for Pb		Recovery = Not calculated						
Sbt	18.0	0.0106	mg/L	0.00024	0.0106	mg/L	0.00024	2.25%
QC value within limits for Sb		Recovery = Not calculated						
Set	-259.6	-0.0162	mg/L	0.00223	-0.0162	mg/L	0.00223	13.74%
QC value within limits for Se		Recovery = Not calculated						
Tlt	37.0	-0.0919	mg/L	0.00178	-0.0919	mg/L	0.00178	1.94%
QC value within limits for Tl		Recovery = Not calculated						
Vt	-297.9	0.00163	mg/L	0.000172	0.00163	mg/L	0.000172	10.53%
QC value within limits for V		Recovery = Not calculated						
Znt	821.7	0.0225	mg/L	0.00013	0.0225	mg/L	0.00013	0.56%
QC value within limits for Zn		Recovery = Not calculated						
Alxt	413.2	5.36	ug/L	1.391	0.00536	mg/L	0.001391	25.94%
QC value within limits for Alx		Recovery = Not calculated						
Bext	-1611.5	-0.682	ug/L	0.0091	-0.00068	mg/L	0.000009	1.33%
QC value within limits for Bex		Recovery = Not calculated						

All analyte(s) passed QC.

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

Autosampler Location: 10
Date Collected: 5/7/2007 15:26:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	348616.0	87.1	%	0.18				0.21%
Yr	294301.3	91.4	%	0.44				0.48%
Agt	-9504.9	-0.0397	mg/L	0.00018	-0.0397	mg/L	0.00018	0.45%
QC value within limits for Ag	Recovery = Not calculated							
Alt	1242885.5	252	mg/L	1.6	252	mg/L	1.6	0.64%
QC value within limits for Al	Recovery = 100.63%							
Ast	-412.9	-0.259	mg/L	0.0076	-0.259	mg/L	0.0076	2.94%
QC value within limits for As	Recovery = Not calculated							
B_t	2024.3	0.0754	mg/L	0.00030	0.0754	mg/L	0.00030	0.39%
QC value within limits for B_	Recovery = Not calculated							
Bat	141.1	0.00253	mg/L	0.000031	0.00253	mg/L	0.000031	1.24%
QC value within limits for Ba	Recovery = Not calculated							
Bet	-1384.2	-0.00059	mg/L	0.000032	-0.00059	mg/L	0.000032	5.50%
QC value within limits for Be	Recovery = Not calculated							
Cat	3024919.8	256	mg/L	0.4	256	mg/L	0.4	0.16%
QC value within limits for Ca	Recovery = 102.48%							
Cdt	-30.4	0.00206	mg/L	0.000289	0.00206	mg/L	0.000289	14.00%
QC value within limits for Cd	Recovery = Not calculated							
Cot	17.3	0.00088	mg/L	0.000146	0.00088	mg/L	0.000146	16.59%
QC value within limits for Co	Recovery = Not calculated							
Crt	-21.3	-0.00034	mg/L	0.000017	-0.00034	mg/L	0.000017	4.96%
QC value within limits for Cr	Recovery = Not calculated							
Cut	-3075.0	-0.00880	mg/L	0.000115	-0.00880	mg/L	0.000115	1.30%
QC value within limits for Cu	Recovery = Not calculated							
Fet	250745.2	102	mg/L	0.2	102	mg/L	0.2	0.22%
QC value within limits for Fe	Recovery = 101.55%							
Kt	170.6	0.125	mg/L	0.0508	0.125	mg/L	0.0508	40.69%
QC value within limits for K	Recovery = Not calculated							
Mgt	1942807.6	244	mg/L	0.3	244	mg/L	0.3	0.14%
QC value within limits for Mg	Recovery = 97.46%							
Mnt	1041.6	0.00230	mg/L	0.000044	0.00230	mg/L	0.000044	1.91%
QC value within limits for Mn	Recovery = Not calculated							
Mot	-19.3	-0.00200	mg/L	0.000262	-0.00200	mg/L	0.000262	13.07%
QC value within limits for Mo	Recovery = Not calculated							
Nat	235.4	0.0997	mg/L	0.00967	0.0997	mg/L	0.00967	9.70%
QC value within limits for Na	Recovery = Not calculated							
Nit	-15.9	-0.00094	mg/L	0.000208	-0.00094	mg/L	0.000208	22.16%
QC value within limits for Ni	Recovery = Not calculated							
Pbt	-117.3	-0.0339	mg/L	0.00229	-0.0339	mg/L	0.00229	6.75%
QC value within limits for Pb	Recovery = Not calculated							
Sbt	19.6	0.0117	mg/L	0.00339	0.0117	mg/L	0.00339	29.10%
QC value within limits for Sb	Recovery = Not calculated							
Set	-271.7	-0.0256	mg/L	0.00142	-0.0256	mg/L	0.00142	5.54%
QC value within limits for Se	Recovery = Not calculated							
Tlt	24.6	-0.0811	mg/L	0.00146	-0.0811	mg/L	0.00146	1.80%
QC value within limits for Tl	Recovery = Not calculated							
Vt	-344.4	0.00133	mg/L	0.000093	0.00133	mg/L	0.000093	6.95%
QC value within limits for V	Recovery = Not calculated							
Znt	660.7	0.0181	mg/L	0.00002	0.0181	mg/L	0.00002	0.09%
QC value within limits for Zn	Recovery = Not calculated							
Alxt	Saturated2							
Unable to evaluate QC.								
Bext	-1384.2	-0.586	ug/L	0.0323	-0.00059	mg/L	0.000032	5.50%
QC value within limits for Bex	Recovery = Not calculated							

All analyte(s) passed QC. One or more analytes were not evaluated.

Sequence No.: 6
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 5/7/2007 15:29:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	354867.8	88.7	%	0.53				0.60%
Yr	294592.2	91.5	%	1.09				1.19%
Ag†	38288.5	0.160	mg/L	0.0003	0.160	mg/L	0.0003	0.17%
QC value less than the lower limit for Ag Recovery = 31.97%								
Al†	1241271.6	251	mg/L	6.0	251	mg/L	6.0	2.37%
QC value within limits for Al Recovery = 100.50%								
As†	-409.6	-0.256	mg/L	0.0013	-0.256	mg/L	0.0013	0.49%
QC value less than the lower limit for As Recovery = Not calculated								
B_†	1851.0	0.0684	mg/L	0.00007	0.0684	mg/L	0.00007	0.10%
QC value greater than the upper limit for B_ Recovery = Not calculated								
Ba†	14998.1	0.270	mg/L	0.0020	0.270	mg/L	0.0020	0.74%
QC value within limits for Ba Recovery = 107.83%								
Be†	604148.9	0.256	mg/L	0.0017	0.256	mg/L	0.0017	0.66%
QC value within limits for Be Recovery = 102.33%								
Ca†	3028969.6	257	mg/L	4.6	257	mg/L	4.6	1.80%
QC value within limits for Ca Recovery = 102.62%								
Cd†	10686.1	0.519	mg/L	0.0047	0.519	mg/L	0.0047	0.90%
QC value within limits for Cd Recovery = 103.78%								
Co†	4846.0	0.247	mg/L	0.0030	0.247	mg/L	0.0030	1.21%
QC value within limits for Co Recovery = 98.83%								
Cr†	16150.1	0.256	mg/L	0.0009	0.256	mg/L	0.0009	0.34%
QC value within limits for Cr Recovery = 102.42%								
Cu†	91089.5	0.261	mg/L	0.0001	0.261	mg/L	0.0001	0.05%
QC value within limits for Cu Recovery = 104.42%								
Fe†	249725.6	101	mg/L	0.3	101	mg/L	0.3	0.34%
QC value within limits for Fe Recovery = 101.14%								
K†	109.1	0.0798	mg/L	0.02418	0.0798	mg/L	0.02418	30.30%
QC value within limits for K Recovery = Not calculated								
Mg†	1941759.4	244	mg/L	4.5	244	mg/L	4.5	1.87%
QC value within limits for Mg Recovery = 97.41%								
Mn†	122249.4	0.270	mg/L	0.0013	0.270	mg/L	0.0013	0.47%
QC value within limits for Mn Recovery = 108.01%								
Mo†	-21.9	-0.00227	mg/L	0.000134	-0.00227	mg/L	0.000134	5.89%
QC value within limits for Mo Recovery = Not calculated								
Na†	98.5	0.0417	mg/L	0.01086	0.0417	mg/L	0.01086	26.03%
QC value within limits for Na Recovery = Not calculated								
Ni†	8205.7	0.482	mg/L	0.0043	0.482	mg/L	0.0043	0.89%
QC value within limits for Ni Recovery = 96.47%								
Pb†	1652.5	0.477	mg/L	0.0056	0.477	mg/L	0.0056	1.17%
QC value within limits for Pb Recovery = 95.46%								
Sb†	23.6	0.00933	mg/L	0.004181	0.00933	mg/L	0.004181	44.82%
QC value within limits for Sb Recovery = Not calculated								
Se†	-280.3	-0.0349	mg/L	0.00681	-0.0349	mg/L	0.00681	19.52%
QC value within limits for Se Recovery = Not calculated								
Tl†	20.9	-0.0815	mg/L	0.00228	-0.0815	mg/L	0.00228	2.80%
QC value less than the lower limit for Tl Recovery = Not calculated								
V†	36277.3	0.258	mg/L	0.0006	0.258	mg/L	0.0006	0.23%
QC value within limits for V Recovery = 103.39%								
Zn†	20474.4	0.559	mg/L	0.0034	0.559	mg/L	0.0034	0.61%
QC value within limits for Zn Recovery = 111.71%								
Alx†	Saturated2							
Unable to evaluate QC.								
Bex†	604148.9	256	ug/L	1.7	0.256	mg/L	0.0017	0.66%
QC value within limits for Bex Recovery = 102.32%								

QC Failed. Continue with analysis.

Sequence No.: 7
Sample ID: Wash
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 0
Date Collected: 5/7/2007 15:33:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Wash

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: Wash

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	396656.9	99.1	%	0.05				0.05%
Yr	322022.5	100	%	0.9				0.91%
Ag†	-143.3	-0.00060	mg/L	0.000042	-0.00060	mg/L	0.000042	7.01%
QC value within limits for Ag	Recovery = Not calculated							
Al†	5.2	0.00105	mg/L	0.003310	0.00105	mg/L	0.003310	314.67%
QC value within limits for Al	Recovery = Not calculated							
As†	-14.0	-0.00879	mg/L	0.001680	-0.00879	mg/L	0.001680	19.11%
QC value within limits for As	Recovery = Not calculated							
B_†	80.3	0.00299	mg/L	0.000344	0.00299	mg/L	0.000344	11.48%
QC value within limits for B_	Recovery = Not calculated							
Ba†	-4.9	-0.00009	mg/L	0.000069	-0.00009	mg/L	0.000069	78.62%
QC value within limits for Ba	Recovery = Not calculated							
Be†	-10.9	0.00000	mg/L	0.000009	0.00000	mg/L	0.000009	204.76%
QC value within limits for Be	Recovery = Not calculated							
Ca†	-3.6	-0.00030	mg/L	0.000496	-0.00030	mg/L	0.000496	164.76%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	-5.5	-0.00014	mg/L	0.000124	-0.00014	mg/L	0.000124	85.81%
QC value within limits for Cd	Recovery = Not calculated							
Co†	2.7	0.00014	mg/L	0.000221	0.00014	mg/L	0.000221	162.34%
QC value within limits for Co	Recovery = Not calculated							
Cr†	-4.8	-0.00008	mg/L	0.000004	-0.00008	mg/L	0.000004	5.25%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	136.0	0.00039	mg/L	0.000205	0.00039	mg/L	0.000205	52.71%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	0.5	0.00021	mg/L	0.000011	0.00021	mg/L	0.000011	5.28%
QC value within limits for Fe	Recovery = Not calculated							
K†	47.2	0.0345	mg/L	0.03350	0.0345	mg/L	0.03350	97.11%
QC value within limits for K	Recovery = Not calculated							
Mg†	10.2	0.00128	mg/L	0.000122	0.00128	mg/L	0.000122	9.59%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	-17.7	-0.00004	mg/L	0.000025	-0.00004	mg/L	0.000025	64.27%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	-1.3	-0.00014	mg/L	0.000365	-0.00014	mg/L	0.000365	266.96%
QC value within limits for Mo	Recovery = Not calculated							
Na†	15.1	0.00640	mg/L	0.007412	0.00640	mg/L	0.007412	115.84%
QC value within limits for Na	Recovery = Not calculated							
Ni†	-0.9	-0.00005	mg/L	0.000082	-0.00005	mg/L	0.000082	153.59%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	-2.7	-0.00077	mg/L	0.002189	-0.00077	mg/L	0.002189	284.31%
QC value within limits for Pb	Recovery = Not calculated							
Sb†	-5.9	-0.00349	mg/L	0.002267	-0.00349	mg/L	0.002267	64.89%
QC value within limits for Sb	Recovery = Not calculated							
Se†	0.1	0.00006	mg/L	0.003975	0.00006	mg/L	0.003975	>999.9%
QC value within limits for Se	Recovery = Not calculated							
Tl†	-2.8	-0.00129	mg/L	0.000681	-0.00129	mg/L	0.000681	52.85%
QC value within limits for Tl	Recovery = Not calculated							
V†	-4.0	-0.00003	mg/L	0.000040	-0.00003	mg/L	0.000040	139.25%
QC value within limits for V	Recovery = Not calculated							
Zn†	5.9	0.00016	mg/L	0.000063	0.00016	mg/L	0.000063	38.48%
QC value within limits for Zn	Recovery = Not calculated							
Alx†	116.0	1.51	ug/L	1.884	0.00151	mg/L	0.001884	125.14%
QC value within limits for Alx	Recovery = Not calculated							
Bex†	-10.9	-0.00461	ug/L	0.009466	0.00000	mg/L	0.000009	205.22%
QC value within limits for Bex	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 8
Sample ID: QC-25 1ppm
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 5/7/2007 15:37:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: QC-25 1ppm

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: QC-25 1ppm

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	394553.2	98.6	%	0.18				0.18%
Yr	317927.9	98.8	%	1.74				1.76%
Ag†	239388.8	1.000	mg/L	0.0037	1.000	mg/L	0.0037	0.37%
QC value within limits for Ag	Recovery = 99.95%							
Al†	5044.4	0.978	mg/L	0.0205	0.978	mg/L	0.0205	2.09%
QC value within limits for Al	Recovery = 97.83%							
As†	1592.4	1.00	mg/L	0.003	1.00	mg/L	0.003	0.26%
QC value within limits for As	Recovery = 100.32%							
B_†	25492.7	0.947	mg/L	0.0006	0.947	mg/L	0.0006	0.07%
QC value within limits for B_	Recovery = 94.72%							
Ba†	59977.2	1.08	mg/L	0.003	1.08	mg/L	0.003	0.28%
QC value within limits for Ba	Recovery = 107.81%							
Be†	2368883.1	1.00	mg/L	0.002	1.00	mg/L	0.002	0.16%
QC value within limits for Be	Recovery = 100.31%							
Ca†	12390.5	1.05	mg/L	0.021	1.05	mg/L	0.021	1.99%
QC value within limits for Ca	Recovery = 104.94%							
Cd†	21159.3	1.01	mg/L	0.001	1.01	mg/L	0.001	0.08%
QC value within limits for Cd	Recovery = 100.93%							
Co†	21161.5	1.08	mg/L	0.003	1.08	mg/L	0.003	0.27%
QC value within limits for Co	Recovery = 107.89%							
Cr†	66000.3	1.05	mg/L	0.002	1.05	mg/L	0.002	0.18%
QC value within limits for Cr	Recovery = 104.64%							
Cu†	347408.1	0.995	mg/L	0.0029	0.995	mg/L	0.0029	0.29%
QC value within limits for Cu	Recovery = 99.53%							
Fe†	2607.7	1.06	mg/L	0.021	1.06	mg/L	0.021	1.98%
QC value within limits for Fe	Recovery = 105.65%							
K†	13794.3	10.1	mg/L	0.19	10.1	mg/L	0.19	1.92%
QC value within limits for K	Recovery = 100.93%							
Mg†	8781.2	1.10	mg/L	0.020	1.10	mg/L	0.020	1.80%
QC value greater than the upper limit for Mg	Recovery = 110.20%							
Mn†	496048.4	1.10	mg/L	0.000	1.10	mg/L	0.000	0.02%
QC value within limits for Mn	Recovery = 109.57%							
Mo†	9601.8	0.996	mg/L	0.0029	0.996	mg/L	0.0029	0.29%
QC value within limits for Mo	Recovery = 99.65%							
Na†	2623.0	1.11	mg/L	0.028	1.11	mg/L	0.028	2.49%
QC value within limits for Na	Recovery = 111.06%							
Ni†	18689.0	1.10	mg/L	0.002	1.10	mg/L	0.002	0.20%
QC value within limits for Ni	Recovery = 109.83%							
Pb†	3785.8	1.09	mg/L	0.005	1.09	mg/L	0.005	0.43%
QC value within limits for Pb	Recovery = 109.34%							
Sb†	1694.3	0.986	mg/L	0.0030	0.986	mg/L	0.0030	0.31%
QC value within limits for Sb	Recovery = 98.63%							
Se†	1010.1	0.987	mg/L	0.0030	0.987	mg/L	0.0030	0.30%
QC value within limits for Se	Recovery = 98.69%							
Tl†	2308.6	1.07	mg/L	0.006	1.07	mg/L	0.006	0.57%
QC value within limits for Tl	Recovery = 107.16%							
V†	144368.1	1.01	mg/L	0.001	1.01	mg/L	0.001	0.12%
QC value within limits for V	Recovery = 101.43%							
Zn†	39944.8	1.09	mg/L	0.004	1.09	mg/L	0.004	0.37%
QC value within limits for Zn	Recovery = 108.88%							
Alx†	73593.1	955	ug/L	0.9	0.955	mg/L	0.0009	0.10%
QC value within limits for Alx	Recovery = 95.51%							
Bex†	2368883.1	1000	ug/L	1.6	1.00	mg/L	0.002	0.16%
QC value within limits for Bex	Recovery = 100.30%							

QC Failed. Retry.

Sequence No.: 9
Sample ID: QC-25 1ppm
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 5/7/2007 15:39:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: QC-25 1ppm

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: QC-25 1ppm

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	397685.9	99.4	%	0.36				0.36%
Yr	319016.1	99.1	%	0.20				0.20%
Ag†	238368.9	0.995	mg/L	0.0006	0.995	mg/L	0.0006	0.06%
QC value within limits for Ag Recovery = 99.53%								
Al†	5065.7	0.983	mg/L	0.0010	0.983	mg/L	0.0010	0.10%
QC value within limits for Al Recovery = 98.27%								
As†	1590.0	1.00	mg/L	0.003	1.00	mg/L	0.003	0.34%
QC value within limits for As Recovery = 100.16%								
B_†	25668.3	0.954	mg/L	0.0009	0.954	mg/L	0.0009	0.10%
QC value within limits for B_ Recovery = 95.38%								
Ba†	60089.8	1.08	mg/L	0.002	1.08	mg/L	0.002	0.20%
QC value within limits for Ba Recovery = 108.01%								
Be†	2379362.1	1.01	mg/L	0.001	1.01	mg/L	0.001	0.06%
QC value within limits for Be Recovery = 100.76%								
Ca†	12462.9	1.06	mg/L	0.003	1.06	mg/L	0.003	0.27%
QC value within limits for Ca Recovery = 105.56%								
Cd†	21139.0	1.01	mg/L	0.001	1.01	mg/L	0.001	0.12%
QC value within limits for Cd Recovery = 100.83%								
Co†	21101.0	1.08	mg/L	0.003	1.08	mg/L	0.003	0.24%
QC value within limits for Co Recovery = 107.58%								
Cr†	65999.4	1.05	mg/L	0.004	1.05	mg/L	0.004	0.34%
QC value within limits for Cr Recovery = 104.63%								
Cu†	346879.2	0.994	mg/L	0.0015	0.994	mg/L	0.0015	0.15%
QC value within limits for Cu Recovery = 99.38%								
Fe†	2622.3	1.06	mg/L	0.004	1.06	mg/L	0.004	0.42%
QC value within limits for Fe Recovery = 106.24%								
K†	13823.9	10.1	mg/L	0.05	10.1	mg/L	0.05	0.54%
QC value within limits for K Recovery = 101.15%								
Mg†	8776.5	1.10	mg/L	0.004	1.10	mg/L	0.004	0.39%
QC value greater than the upper limit for Mg Recovery = 110.14%								
Mn†	496344.3	1.10	mg/L	0.003	1.10	mg/L	0.003	0.26%
QC value within limits for Mn Recovery = 109.63%								
Mo†	9581.8	0.994	mg/L	0.0024	0.994	mg/L	0.0024	0.24%
QC value within limits for Mo Recovery = 99.44%								
Na†	2646.8	1.12	mg/L	0.008	1.12	mg/L	0.008	0.69%
QC value within limits for Na Recovery = 112.07%								
Ni†	18743.5	1.10	mg/L	0.000	1.10	mg/L	0.000	0.03%
QC value greater than the upper limit for Ni Recovery = 110.15%								
Pb†	3784.1	1.09	mg/L	0.006	1.09	mg/L	0.006	0.53%
QC value within limits for Pb Recovery = 109.29%								
Sb†	1687.7	0.982	mg/L	0.0006	0.982	mg/L	0.0006	0.06%
QC value within limits for Sb Recovery = 98.24%								
Se†	1010.3	0.987	mg/L	0.0064	0.987	mg/L	0.0064	0.64%
QC value within limits for Se Recovery = 98.71%								
Tl†	2292.8	1.06	mg/L	0.004	1.06	mg/L	0.004	0.41%
QC value within limits for Tl Recovery = 106.43%								
V†	144485.7	1.02	mg/L	0.003	1.02	mg/L	0.003	0.30%
QC value within limits for V Recovery = 101.52%								
Zn†	39998.6	1.09	mg/L	0.003	1.09	mg/L	0.003	0.25%
QC value within limits for Zn Recovery = 109.03%								
Alx†	73893.1	959	ug/L	2.2	0.959	mg/L	0.0022	0.23%
QC value within limits for Alx Recovery = 95.90%								
Bex†	2379362.1	1010	ug/L	0.6	1.01	mg/L	0.001	0.06%

QC value within limits for Bex Recovery = 100.75%
QC Failed. Continue with analysis.

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

Autosampler Location: 4
Date Collected: 5/7/2007 15:44:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	378027.0	94.5	%	0.51				0.54%
Yr	311637.7	96.8	%	0.25				0.25%
Ag†	240780.8	1.01	mg/L	0.001	1.01	mg/L	0.001	0.13%
QC value within limits for Ag	Recovery = 100.54%							
Al†	25004.6	4.84	mg/L	0.014	4.84	mg/L	0.014	0.29%
QC value within limits for Al	Recovery = 96.88%							
As†	7652.3	4.82	mg/L	0.052	4.82	mg/L	0.052	1.07%
QC value within limits for As	Recovery = 96.43%							
B_†	66998.3	2.48	mg/L	0.003	2.48	mg/L	0.003	0.10%
QC value within limits for B_	Recovery = 99.38%							
Ba†	285071.9	5.12	mg/L	0.008	5.12	mg/L	0.008	0.15%
QC value within limits for Ba	Recovery = 102.48%							
Be†	4890426.5	2.07	mg/L	0.013	2.07	mg/L	0.013	0.63%
QC value within limits for Be	Recovery = 103.56%							
Ca†	603729.0	51.1	mg/L	0.09	51.1	mg/L	0.09	0.18%
QC value within limits for Ca	Recovery = 102.27%							
Cd†	52999.9	2.51	mg/L	0.005	2.51	mg/L	0.005	0.19%
QC value within limits for Cd	Recovery = 100.26%							
Co†	100339.8	5.12	mg/L	0.010	5.12	mg/L	0.010	0.19%
QC value within limits for Co	Recovery = 102.32%							
Cr†	317440.8	5.03	mg/L	0.005	5.03	mg/L	0.005	0.11%
QC value within limits for Cr	Recovery = 100.65%							
Cu†	1753806.8	5.02	mg/L	0.031	5.02	mg/L	0.031	0.62%
QC value within limits for Cu	Recovery = 100.48%							
Fe†	12796.9	5.18	mg/L	0.002	5.18	mg/L	0.002	0.04%
QC value within limits for Fe	Recovery = 103.70%							
K†	67496.2	49.4	mg/L	0.28	49.4	mg/L	0.28	0.57%
QC value within limits for K	Recovery = 98.77%							
Mg†	411860.2	51.6	mg/L	0.04	51.6	mg/L	0.04	0.07%
QC value within limits for Mg	Recovery = 103.26%							
Mn†	2342815.3	5.17	mg/L	0.012	5.17	mg/L	0.012	0.23%
QC value within limits for Mn	Recovery = 103.49%							
Mo†	48802.9	5.06	mg/L	0.001	5.06	mg/L	0.001	0.03%
QC value within limits for Mo	Recovery = 101.29%							
Na†	120696.9	51.1	mg/L	0.14	51.1	mg/L	0.14	0.27%
QC value within limits for Na	Recovery = 102.21%							
Ni†	88255.7	5.19	mg/L	0.012	5.19	mg/L	0.012	0.23%
QC value within limits for Ni	Recovery = 103.73%							
Pb†	17812.8	5.14	mg/L	0.037	5.14	mg/L	0.037	0.71%
QC value within limits for Pb	Recovery = 102.89%							
Sb†	8323.2	4.85	mg/L	0.053	4.85	mg/L	0.053	1.10%
QC value within limits for Sb	Recovery = 96.94%							
Se†	5337.5	5.21	mg/L	0.054	5.21	mg/L	0.054	1.04%
QC value within limits for Se	Recovery = 104.28%							
Tl†	11289.4	5.22	mg/L	0.035	5.22	mg/L	0.035	0.67%
QC value within limits for Tl	Recovery = 104.46%							
V†	724452.1	5.09	mg/L	0.000	5.09	mg/L	0.000	0.00%
QC value within limits for V	Recovery = 101.78%							
Zn†	190849.1	5.20	mg/L	0.009	5.20	mg/L	0.009	0.16%
QC value within limits for Zn	Recovery = 104.05%							
Alx†	387457.1	5030	ug/L	37.3	5.03	mg/L	0.037	0.74%
QC value within limits for Alx	Recovery = 100.57%							
Bex†	4890426.5	2070	ug/L	13.0	2.07	mg/L	0.013	0.63%
QC value within limits for Bex	Recovery = 103.53%							

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: ICB
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 0
Date Collected: 5/7/2007 15:48:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	401517.7	100	%	0.7				0.73%
Yr	321943.0	100	%	1.4				1.45%
Agt	-360.5	-0.00151	mg/L	0.000145	-0.00151	mg/L	0.000145	9.62%
QC value within limits for Ag		Recovery = Not calculated						
Alt	26.9	0.00545	mg/L	0.003464	0.00545	mg/L	0.003464	63.60%
QC value within limits for Al		Recovery = Not calculated						
Ast	5.3	0.00335	mg/L	0.001152	0.00335	mg/L	0.001152	34.34%
QC value within limits for As		Recovery = Not calculated						
B_t	443.4	0.0165	mg/L	0.00198	0.0165	mg/L	0.00198	11.98%
QC value within limits for B_		Recovery = Not calculated						
Bat	3.2	0.00006	mg/L	0.000011	0.00006	mg/L	0.000011	19.84%
QC value within limits for Ba		Recovery = Not calculated						
Bet	62.2	0.00003	mg/L	0.000056	0.00003	mg/L	0.000056	211.28%
QC value within limits for Be		Recovery = Not calculated						
Cat	16.4	0.00139	mg/L	0.000538	0.00139	mg/L	0.000538	38.61%
QC value within limits for Ca		Recovery = Not calculated						
Cdt	0.9	0.00000	mg/L	0.000089	0.00000	mg/L	0.000089	>999.9%
QC value within limits for Cd		Recovery = Not calculated						
Cot	1.6	0.00008	mg/L	0.000055	0.00008	mg/L	0.000055	68.53%
QC value within limits for Co		Recovery = Not calculated						
Crt	-1.4	-0.00002	mg/L	0.000156	-0.00002	mg/L	0.000156	692.92%
QC value within limits for Cr		Recovery = Not calculated						
Cut	42.5	0.00012	mg/L	0.000258	0.00012	mg/L	0.000258	212.11%
QC value within limits for Cu		Recovery = Not calculated						
Fet	-1.4	-0.00055	mg/L	0.000710	-0.00055	mg/L	0.000710	129.25%
QC value within limits for Fe		Recovery = Not calculated						
Kt	55.3	0.0404	mg/L	0.02504	0.0404	mg/L	0.02504	61.92%
QC value within limits for K		Recovery = Not calculated						
Mgt	10.4	0.00131	mg/L	0.000035	0.00131	mg/L	0.000035	2.67%
QC value within limits for Mg		Recovery = Not calculated						
Mnt	32.9	0.00007	mg/L	0.000022	0.00007	mg/L	0.000022	30.65%
QC value within limits for Mn		Recovery = Not calculated						
Mot	0.4	0.00004	mg/L	0.000303	0.00004	mg/L	0.000303	735.11%
QC value within limits for Mo		Recovery = Not calculated						
Nat	-5.7	-0.00242	mg/L	0.021032	-0.00242	mg/L	0.021032	868.05%
QC value within limits for Na		Recovery = Not calculated						
Nit	6.8	0.00040	mg/L	0.000143	0.00040	mg/L	0.000143	35.64%
QC value within limits for Ni		Recovery = Not calculated						
Pbt	2.5	0.00074	mg/L	0.000272	0.00074	mg/L	0.000272	36.87%
QC value within limits for Pb		Recovery = Not calculated						
Sbt	3.2	0.00191	mg/L	0.001227	0.00191	mg/L	0.001227	64.28%
QC value within limits for Sb		Recovery = Not calculated						
Set	-3.4	-0.00329	mg/L	0.002014	-0.00329	mg/L	0.002014	61.18%
QC value within limits for Se		Recovery = Not calculated						
Tlt	-3.8	-0.00176	mg/L	0.003080	-0.00176	mg/L	0.003080	175.48%
QC value within limits for Tl		Recovery = Not calculated						
Vt	49.3	0.00034	mg/L	0.000137	0.00034	mg/L	0.000137	39.67%
QC value within limits for V		Recovery = Not calculated						
Znt	4.4	0.00012	mg/L	0.000025	0.00012	mg/L	0.000025	20.87%
QC value within limits for Zn		Recovery = Not calculated						
Alxt	23.2	0.301	ug/L	0.1365	0.00030	mg/L	0.000136	45.29%
QC value within limits for Alx		Recovery = Not calculated						
Bext	62.2	0.0263	ug/L	0.05561	0.00003	mg/L	0.000056	211.29%
QC value within limits for Bex		Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: MRL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 20
Date Collected: 5/7/2007 15:51:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MRL

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	402831.0	101	%	0.1				0.07%
Yr	321229.3	99.8	%	0.41				0.42%
Ag†	1907.1	0.00796	mg/L	0.000035	0.00796	mg/L	0.000035	0.44%
QC value within limits for Ag	Recovery = 79.63%							
Al†	293.5	0.0586	mg/L	0.00018	0.0586	mg/L	0.00018	0.31%
QC value within limits for Al	Recovery = 117.13%							
As†	143.2	0.0900	mg/L	0.00079	0.0900	mg/L	0.00079	0.87%
QC value within limits for As	Recovery = 89.95%							
B_†	1569.8	0.0584	mg/L	0.00104	0.0584	mg/L	0.00104	1.78%
QC value within limits for B_	Recovery = 116.72%							
Ba†	1148.0	0.0206	mg/L	0.00010	0.0206	mg/L	0.00010	0.51%
QC value within limits for Ba	Recovery = 103.12%							
Be†	2472.4	0.00105	mg/L	0.000035	0.00105	mg/L	0.000035	3.33%
QC value within limits for Be	Recovery = 104.82%							
Ca†	12221.7	1.04	mg/L	0.001	1.04	mg/L	0.001	0.11%
QC value within limits for Ca	Recovery = 103.51%							
Cd†	122.5	0.00488	mg/L	0.000031	0.00488	mg/L	0.000031	0.64%
QC value within limits for Cd	Recovery = 97.58%							
Co†	1025.9	0.0523	mg/L	0.00051	0.0523	mg/L	0.00051	0.98%
QC value within limits for Co	Recovery = 104.61%							
Cr†	647.4	0.0103	mg/L	0.00008	0.0103	mg/L	0.00008	0.78%
QC value within limits for Cr	Recovery = 102.64%							
Cu†	3437.0	0.00988	mg/L	0.000078	0.00988	mg/L	0.000078	0.79%
QC value within limits for Cu	Recovery = 98.77%							
Fe†	54.6	0.0221	mg/L	0.00005	0.0221	mg/L	0.00005	0.23%
QC value within limits for Fe	Recovery = 110.71%							
K†	1329.6	0.973	mg/L	0.0529	0.973	mg/L	0.0529	5.43%
QC value within limits for K	Recovery = 97.28%							
Mg†	862.8	0.108	mg/L	0.0009	0.108	mg/L	0.0009	0.85%
QC value within limits for Mg	Recovery = 108.17%							
Mn†	1018.1	0.00225	mg/L	0.000002	0.00225	mg/L	0.000002	0.10%
QC value within limits for Mn	Recovery = 112.44%							
Mo†	189.8	0.0197	mg/L	0.00005	0.0197	mg/L	0.00005	0.27%
QC value within limits for Mo	Recovery = 98.47%							
Na†	2484.3	1.05	mg/L	0.011	1.05	mg/L	0.011	1.00%
QC value within limits for Na	Recovery = 105.19%							
Ni†	369.8	0.0217	mg/L	0.00003	0.0217	mg/L	0.00003	0.15%
QC value within limits for Ni	Recovery = 108.52%							
Pb†	69.6	0.0201	mg/L	0.00034	0.0201	mg/L	0.00034	1.68%
QC value within limits for Pb	Recovery = 100.54%							
Sb†	66.7	0.0394	mg/L	0.00044	0.0394	mg/L	0.00044	1.12%
QC value within limits for Sb	Recovery = 78.75%							
Se†	100.3	0.0978	mg/L	0.00142	0.0978	mg/L	0.00142	1.45%
QC value within limits for Se	Recovery = 97.83%							
Tl†	227.2	0.105	mg/L	0.0011	0.105	mg/L	0.0011	1.01%
QC value within limits for Tl	Recovery = 104.71%							
V†	316.1	0.00227	mg/L	0.000002	0.00227	mg/L	0.000002	0.09%
QC value within limits for V	Recovery = 113.28%							
Zn†	760.4	0.0207	mg/L	0.00010	0.0207	mg/L	0.00010	0.46%
QC value within limits for Zn	Recovery = 103.60%							
Alx†	3835.1	49.8	ug/L	0.90	0.0498	mg/L	0.00090	1.82%
QC value within limits for Alx	Recovery = 99.54%							
Bex†	2472.4	1.05	ug/L	0.035	0.00105	mg/L	0.000035	3.33%
QC value within limits for Bex	Recovery = 104.69%							

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: WASH
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 0
Date Collected: 5/7/2007 15:55:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: WASH

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: WASH

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	397626.2	99.4	%	0.53				0.53%
Yr	324938.5	101	%	0.4				0.43%
Ag†	-525.0	-0.00219	mg/L	0.000065	-0.00219	mg/L	0.000065	2.96%
Al†	13.0	0.00265	mg/L	0.001415	0.00265	mg/L	0.001415	53.48%
As†	-11.5	-0.00722	mg/L	0.001960	-0.00722	mg/L	0.001960	27.15%
B_†	169.8	0.00633	mg/L	0.000606	0.00633	mg/L	0.000606	9.58%
Ba†	-2.1	-0.00004	mg/L	0.000013	-0.00004	mg/L	0.000013	33.93%
Be†	-28.5	-0.00001	mg/L	0.000015	-0.00001	mg/L	0.000015	125.09%
Ca†	-22.3	-0.00189	mg/L	0.000151	-0.00189	mg/L	0.000151	8.01%
Cd†	-3.7	-0.00008	mg/L	0.000033	-0.00008	mg/L	0.000033	42.34%
Co†	4.5	0.00023	mg/L	0.000122	0.00023	mg/L	0.000122	53.80%
Cr†	0.9	0.00001	mg/L	0.000063	0.00001	mg/L	0.000063	440.08%
Cu†	87.6	0.00025	mg/L	0.000137	0.00025	mg/L	0.000137	54.59%
Fe†	-1.7	-0.00070	mg/L	0.000052	-0.00070	mg/L	0.000052	7.37%
K†	40.4	0.0295	mg/L	0.00006	0.0295	mg/L	0.00006	0.20%
Mg†	1.4	0.00018	mg/L	0.001138	0.00018	mg/L	0.001138	646.04%
Mn†	0.0	0.00000	mg/L	0.000010	0.00000	mg/L	0.000010	>999.9%
Mo†	-3.9	-0.00041	mg/L	0.000175	-0.00041	mg/L	0.000175	42.87%
Na†	9.7	0.00412	mg/L	0.000527	0.00412	mg/L	0.000527	12.79%
Ni†	0.6	0.00004	mg/L	0.000079	0.00004	mg/L	0.000079	211.70%
Pb†	-5.6	-0.00161	mg/L	0.000124	-0.00161	mg/L	0.000124	7.70%
Sb†	1.2	0.00071	mg/L	0.002958	0.00071	mg/L	0.002958	413.78%
Se†	0.1	0.00011	mg/L	0.001906	0.00011	mg/L	0.001906	>999.9%
Tl†	-6.2	-0.00288	mg/L	0.002896	-0.00288	mg/L	0.002896	100.74%
V†	15.2	0.00011	mg/L	0.000043	0.00011	mg/L	0.000043	40.56%
Zn†	-9.1	-0.00025	mg/L	0.000027	-0.00025	mg/L	0.000027	10.91%
Alx†	-22.4	-0.291	ug/L	0.8154	-0.00029	mg/L	0.000815	280.16%
Bex†	-28.5	-0.0121	ug/L	0.01511	-0.00001	mg/L	0.000015	125.01%

Sequence No.: 14
Sample ID: MRL6010
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 22
Date Collected: 5/7/2007 15:59:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MRL6010

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: MRL6010

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	399086.4	99.7	%	0.33				0.33%
Yr	325594.6	101	%	0.3				0.34%
Ag†	1781.3	0.00744	mg/L	0.000425	0.00744	mg/L	0.000425	5.71%
Al†	275.0	0.0549	mg/L	0.00360	0.0549	mg/L	0.00360	6.57%
As†	137.0	0.0860	mg/L	0.00357	0.0860	mg/L	0.00357	4.15%
B_†	1344.5	0.0500	mg/L	0.00054	0.0500	mg/L	0.00054	1.09%
Ba†	1114.9	0.0200	mg/L	0.00015	0.0200	mg/L	0.00015	0.73%
Be†	2213.4	0.00094	mg/L	0.000024	0.00094	mg/L	0.000024	2.57%
Ca†	12041.0	1.02	mg/L	0.003	1.02	mg/L	0.003	0.27%
Cd†	122.7	0.00494	mg/L	0.000306	0.00494	mg/L	0.000306	6.21%
Co†	1001.0	0.0510	mg/L	0.00026	0.0510	mg/L	0.00026	0.50%
Cr†	658.3	0.0104	mg/L	0.00002	0.0104	mg/L	0.00002	0.16%
Cu†	3577.8	0.0103	mg/L	0.00033	0.0103	mg/L	0.00033	3.25%
Fe†	53.2	0.0216	mg/L	0.00142	0.0216	mg/L	0.00142	6.60%
K†	1310.1	0.959	mg/L	0.0047	0.959	mg/L	0.0047	0.49%
Mg†	832.5	0.104	mg/L	0.0005	0.104	mg/L	0.0005	0.45%
Mn†	945.2	0.00209	mg/L	0.000002	0.00209	mg/L	0.000002	0.08%
Mo†	179.7	0.0186	mg/L	0.00001	0.0186	mg/L	0.00001	0.04%
Na†	2501.8	1.06	mg/L	0.020	1.06	mg/L	0.020	1.86%
Ni†	355.7	0.0209	mg/L	0.00007	0.0209	mg/L	0.00007	0.32%
Pb†	60.3	0.0174	mg/L	0.00028	0.0174	mg/L	0.00028	1.63%
Sb†	76.8	0.0454	mg/L	0.00069	0.0454	mg/L	0.00069	1.52%
Se†	102.0	0.0995	mg/L	0.00293	0.0995	mg/L	0.00293	2.95%
Tl†	213.6	0.0984	mg/L	0.00077	0.0984	mg/L	0.00077	0.79%
V†	292.7	0.00210	mg/L	0.000131	0.00210	mg/L	0.000131	6.21%
Zn†	1118.6	0.0306	mg/L	0.00013	0.0306	mg/L	0.00013	0.41%
Alx†	3739.7	48.5	ug/L	0.01	0.0485	mg/L	0.00001	0.02%
Bex†	2213.4	0.937	ug/L	0.0241	0.00094	mg/L	0.000024	2.58%

Sequence No.: 52
Sample ID: MBLANK6010
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 65
Date Collected: 5/7/2007 18:24:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MBLANK6010

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: MBLANK6010

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	398730.1	99.6	%	0.46				0.46%
Yr	332993.8	103	%	0.4				0.35%
Bat	-2.6	-0.00005	mg/L	0.000055	-0.00005	mg/L	0.000055	117.05%
Bet	-7.5	0.00000	mg/L	0.000007	0.00000	mg/L	0.000007	217.96%
Cat	349.9	0.0296	mg/L	0.00165	0.0296	mg/L	0.00165	5.58%
Cdt	-5.3	-0.00025	mg/L	0.000213	-0.00025	mg/L	0.000213	83.54%
Cot	-0.1	0.00000	mg/L	0.000068	0.00000	mg/L	0.000068	>999.9%
Crt	15.8	0.00025	mg/L	0.000155	0.00025	mg/L	0.000155	61.90%
Cut	66.5	0.00019	mg/L	0.000258	0.00019	mg/L	0.000258	135.18%
Fet	3.8	0.00153	mg/L	0.000478	0.00153	mg/L	0.000478	31.24%
Kt	97.0	0.0710	mg/L	0.00228	0.0710	mg/L	0.00228	3.22%
Mgt	45.1	0.00566	mg/L	0.000581	0.00566	mg/L	0.000581	10.26%
Mnt	-23.6	-0.00005	mg/L	0.000005	-0.00005	mg/L	0.000005	9.53%
Mot	-5.7	-0.00059	mg/L	0.000041	-0.00059	mg/L	0.000041	6.87%
Nit	2.9	0.00017	mg/L	0.000147	0.00017	mg/L	0.000147	86.48%
Pbt	-10.0	-0.00290	mg/L	0.000207	-0.00290	mg/L	0.000207	7.15%
Vt	12.8	0.00009	mg/L	0.000170	0.00009	mg/L	0.000170	186.96%
Znt	173.1	0.00475	mg/L	0.000011	0.00475	mg/L	0.000011	0.24%

Sequence No.: 53
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 5/7/2007 18:27:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	369224.8	92.3	%	0.15				0.16%
Yr	311869.0	96.9	%	0.11				0.11%
Ba†	291009.8	5.23	mg/L	0.056	5.23	mg/L	0.056	1.06%
QC value within limits for Ba	Recovery = 104.62%							
Be†	5019583.4	2.13	mg/L	0.002	2.13	mg/L	0.002	0.08%
QC value within limits for Be	Recovery = 106.30%							
Ca†	610789.6	51.7	mg/L	0.19	51.7	mg/L	0.19	0.36%
QC value within limits for Ca	Recovery = 103.46%							
Cd†	54027.5	2.62	mg/L	0.022	2.62	mg/L	0.022	0.83%
QC value within limits for Cd	Recovery = 104.87%							
Co†	102100.3	5.21	mg/L	0.048	5.21	mg/L	0.048	0.92%
QC value within limits for Co	Recovery = 104.11%							
Cr†	323511.5	5.13	mg/L	0.059	5.13	mg/L	0.059	1.16%
QC value within limits for Cr	Recovery = 102.58%							
Cu†	1810474.2	5.19	mg/L	0.001	5.19	mg/L	0.001	0.02%
QC value within limits for Cu	Recovery = 103.73%							
Fe†	12740.6	5.16	mg/L	0.004	5.16	mg/L	0.004	0.08%
QC value within limits for Fe	Recovery = 103.24%							
K†	68315.8	50.0	mg/L	0.34	50.0	mg/L	0.34	0.68%
QC value within limits for K	Recovery = 99.97%							
Mg†	416062.1	52.2	mg/L	0.07	52.2	mg/L	0.07	0.14%
QC value within limits for Mg	Recovery = 104.32%							
Mn†	2399115.7	5.30	mg/L	0.009	5.30	mg/L	0.009	0.16%
QC value within limits for Mn	Recovery = 105.98%							
Mo†	49773.5	5.17	mg/L	0.068	5.17	mg/L	0.068	1.31%
QC value within limits for Mo	Recovery = 103.31%							
Ni†	89799.9	5.28	mg/L	0.057	5.28	mg/L	0.057	1.08%
QC value within limits for Ni	Recovery = 105.58%							
Pb†	18371.4	5.31	mg/L	0.066	5.31	mg/L	0.066	1.24%
QC value within limits for Pb	Recovery = 106.12%							
V†	740037.2	5.20	mg/L	0.003	5.20	mg/L	0.003	0.05%
QC value within limits for V	Recovery = 103.97%							
Zn†	194756.1	5.31	mg/L	0.050	5.31	mg/L	0.050	0.94%
QC value within limits for Zn	Recovery = 106.18%							

All analyte(s) passed QC.

Sequence No.: 54
Sample ID: CCB
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 0
Date Collected: 5/7/2007 18:30:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	394711.6	98.6	%	0.24				0.25%
Yr	324918.1	101	%	0.3				0.32%
Bat	-6.2	-0.00011	mg/L	0.000012	-0.00011	mg/L	0.000012	10.66%
QC value within limits for Ba	Recovery = Not calculated							
Bet	-3.9	0.00000	mg/L	0.000040	0.00000	mg/L	0.000040	>999.9%
QC value within limits for Be	Recovery = Not calculated							
Cat	38.8	0.00328	mg/L	0.000980	0.00328	mg/L	0.000980	29.85%
QC value within limits for Ca	Recovery = Not calculated							
Cdt	1.4	0.00007	mg/L	0.000339	0.00007	mg/L	0.000339	504.69%
QC value within limits for Cd	Recovery = Not calculated							
Cot	1.8	0.00009	mg/L	0.000207	0.00009	mg/L	0.000207	227.91%
QC value within limits for Co	Recovery = Not calculated							
Crt	3.3	0.00005	mg/L	0.000190	0.00005	mg/L	0.000190	364.32%
QC value within limits for Cr	Recovery = Not calculated							
Cut	90.5	0.00026	mg/L	0.000084	0.00026	mg/L	0.000084	32.33%
QC value within limits for Cu	Recovery = Not calculated							
Fet	-1.1	-0.00044	mg/L	0.000129	-0.00044	mg/L	0.000129	29.05%
QC value within limits for Fe	Recovery = Not calculated							
Kt	115.0	0.0841	mg/L	0.02301	0.0841	mg/L	0.02301	27.35%
QC value within limits for K	Recovery = Not calculated							
Mgt	31.6	0.00397	mg/L	0.000327	0.00397	mg/L	0.000327	8.24%
QC value within limits for Mg	Recovery = Not calculated							
Mnt	-31.9	-0.00007	mg/L	0.000001	-0.00007	mg/L	0.000001	1.15%
QC value within limits for Mn	Recovery = Not calculated							
Mot	-0.2	-0.00002	mg/L	0.000058	-0.00002	mg/L	0.000058	368.24%
QC value within limits for Mo	Recovery = Not calculated							
Nit	1.8	0.00011	mg/L	0.000300	0.00011	mg/L	0.000300	283.40%
QC value within limits for Ni	Recovery = Not calculated							
Pbt	-7.6	-0.00219	mg/L	0.001262	-0.00219	mg/L	0.001262	57.63%
QC value within limits for Pb	Recovery = Not calculated							
Vt	24.9	0.00017	mg/L	0.000062	0.00017	mg/L	0.000062	35.83%
QC value within limits for V	Recovery = Not calculated							
Znt	-1.6	-0.00004	mg/L	0.000029	-0.00004	mg/L	0.000029	65.96%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 55
Sample ID: LCS
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 66
Date Collected: 5/7/2007 18:34:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCS

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: LCS

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	381336.3	95.3	%	0.90				0.95%
Yr	322580.3	100	%	0.6				0.63%
Bat	56339.6	1.01	mg/L	0.015	1.01	mg/L	0.015	1.52%
Bet	123350.5	0.0523	mg/L	0.00013	0.0523	mg/L	0.00013	0.24%
Cat	574205.7	48.6	mg/L	0.04	48.6	mg/L	0.04	0.08%
Cdt	4363.7	0.214	mg/L	0.0033	0.214	mg/L	0.0033	1.54%
Cot	20156.2	1.03	mg/L	0.012	1.03	mg/L	0.012	1.14%
Crt	63308.5	1.00	mg/L	0.015	1.00	mg/L	0.015	1.46%
Cut	352422.2	1.01	mg/L	0.002	1.01	mg/L	0.002	0.21%
Fet	12304.7	4.98	mg/L	0.067	4.98	mg/L	0.067	1.34%
Kt	26244.2	19.2	mg/L	0.31	19.2	mg/L	0.31	1.62%
Mgt	158713.4	19.9	mg/L	0.22	19.9	mg/L	0.22	1.12%
Mnt	235668.9	0.521	mg/L	0.0000	0.521	mg/L	0.0000	0.00%
Mot	9746.2	1.01	mg/L	0.013	1.01	mg/L	0.013	1.24%
Nit	8865.7	0.521	mg/L	0.0053	0.521	mg/L	0.0053	1.01%
Pbt	3646.0	1.05	mg/L	0.018	1.05	mg/L	0.018	1.74%
Vt	142836.3	1.00	mg/L	0.001	1.00	mg/L	0.001	0.12%
Znt	39321.4	1.08	mg/L	0.014	1.08	mg/L	0.014	1.30%

Sequence No.: 56
Sample ID: LCSD
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 67
Date Collected: 5/7/2007 18:36:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCSD

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: LCSD

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	386758.8	96.7	%	0.19				0.20%
Yr	322877.0	100	%	0.3				0.33%
Bat	54119.2	0.973	mg/L	0.0041	0.973	mg/L	0.0041	0.42%
Bet	120080.6	0.0510	mg/L	0.00003	0.0510	mg/L	0.00003	0.05%
Cat	558289.7	47.3	mg/L	0.10	47.3	mg/L	0.10	0.21%
Cdt	4183.9	0.205	mg/L	0.0002	0.205	mg/L	0.0002	0.12%
Cot	19383.7	0.988	mg/L	0.0048	0.988	mg/L	0.0048	0.49%
Crt	60748.8	0.963	mg/L	0.0052	0.963	mg/L	0.0052	0.54%
Cut	343807.8	0.985	mg/L	0.0074	0.985	mg/L	0.0074	0.75%
Fet	12049.5	4.88	mg/L	0.038	4.88	mg/L	0.038	0.77%
Kt	25604.3	18.7	mg/L	0.11	18.7	mg/L	0.11	0.59%
Mgt	155193.7	19.5	mg/L	0.09	19.5	mg/L	0.09	0.45%
Mnt	228939.0	0.506	mg/L	0.0003	0.506	mg/L	0.0003	0.07%
Mot	9325.0	0.968	mg/L	0.0025	0.968	mg/L	0.0025	0.26%
Nit	8512.4	0.500	mg/L	0.0007	0.500	mg/L	0.0007	0.15%
Pbt	3525.2	1.02	mg/L	0.014	1.02	mg/L	0.014	1.33%
Vt	138729.0	0.975	mg/L	0.0007	0.975	mg/L	0.0007	0.07%
Znt	37623.3	1.03	mg/L	0.005	1.03	mg/L	0.005	0.48%

Sequence No.: 57
Sample ID: 2705010137
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 68
Date Collected: 5/7/2007 18:39:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010137

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010137

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	329085.1	82.2	%	0.57				0.69%
Yr	298910.8	92.9	%	0.14				0.15%
Bat	888.8	0.0160	mg/L	0.00014	0.0320	mg/L	0.00027	0.85%
Bet	-1754.3	-0.00074	mg/L	0.000030	-0.00149	mg/L	0.000060	4.01%
Cat	1637659.8	139	mg/L	0.2	277	mg/L	0.3	0.12%
Cdt	-1.2	-0.00005	mg/L	0.000326	-0.00011	mg/L	0.000653	600.39%
Cot	14.5	0.00074	mg/L	0.000145	0.00148	mg/L	0.000290	19.59%
Crt	-0.3	-0.00001	mg/L	0.000079	-0.00001	mg/L	0.000158	>999.9%
Cut	1455.2	0.00416	mg/L	0.000136	0.00831	mg/L	0.000273	3.28%
Fet	-13.2	-0.00536	mg/L	0.000449	-0.0107	mg/L	0.00090	8.38%
Kt	22883.6	16.7	mg/L	0.09	33.5	mg/L	0.18	0.53%
Mgt	596536.7	74.8	mg/L	0.01	150	mg/L	0.0	0.01%
Mnt	319991.9	0.707	mg/L	0.0014	1.41	mg/L	0.003	0.20%
Mot	299.9	0.0311	mg/L	0.00058	0.0622	mg/L	0.00116	1.86%
Nit	5.3	0.00031	mg/L	0.000112	0.00062	mg/L	0.000225	36.05%
Pbt	-27.0	-0.00779	mg/L	0.001905	-0.0156	mg/L	0.00381	24.45%
Vt	11440.7	0.0800	mg/L	0.00044	0.160	mg/L	0.0009	0.55%
Znt	221.7	0.00608	mg/L	0.000264	0.0122	mg/L	0.00053	4.34%

Sequence No.: 58
Sample ID: 2705010137MS
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 69
Date Collected: 5/7/2007 18:43:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010137MS

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010137MS

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	330413.2	82.6	%	0.20				0.24%
Yr	295272.2	91.7	%	0.18				0.19%
Bat	29769.4	0.535	mg/L	0.0010	1.07	mg/L	0.002	0.18%
Bet	60614.9	0.0257	mg/L	0.00012	0.0514	mg/L	0.00023	0.46%
Cat	1966605.0	167	mg/L	0.1	333	mg/L	0.1	0.03%
Cdt	2372.2	0.116	mg/L	0.0000	0.233	mg/L	0.0000	0.01%
Cot	10253.6	0.523	mg/L	0.0007	1.05	mg/L	0.001	0.14%
Crt	31557.1	0.500	mg/L	0.0002	1.00	mg/L	0.000	0.04%
Cut	204278.3	0.585	mg/L	0.0034	1.17	mg/L	0.007	0.58%
Fet	6335.7	2.57	mg/L	0.046	5.13	mg/L	0.091	1.78%
Kt	38308.5	28.0	mg/L	0.30	56.1	mg/L	0.60	1.07%
Mgt	689830.7	86.5	mg/L	0.00	173	mg/L	0.0	0.00%
Mnt	448352.0	0.990	mg/L	0.0018	1.98	mg/L	0.004	0.18%
Mot	5297.8	0.550	mg/L	0.0006	1.10	mg/L	0.001	0.10%
Nit	4409.2	0.259	mg/L	0.0005	0.518	mg/L	0.0009	0.18%
Pbt	1778.1	0.514	mg/L	0.0005	1.03	mg/L	0.001	0.09%
Vt	84992.7	0.597	mg/L	0.0009	1.19	mg/L	0.002	0.15%
Znt	21763.7	0.595	mg/L	0.0010	1.19	mg/L	0.002	0.16%

Sequence No.: 59
Sample ID: 2705010137MSD
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 70
Date Collected: 5/7/2007 18:47:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010137MSD

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010137MSD

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	326733.4	81.7	%	0.01				0.01%
Yr	294880.5	91.6	%	0.74				0.81%
Bat	29329.2	0.527	mg/L	0.0001	1.05	mg/L	0.000	0.02%
Bet	59202.2	0.0251	mg/L	0.00012	0.0502	mg/L	0.00024	0.47%
Cat	1901368.8	161	mg/L	0.3	322	mg/L	0.5	0.16%
Cdt	2326.1	0.114	mg/L	0.0003	0.228	mg/L	0.0006	0.26%
Cot	10117.8	0.516	mg/L	0.0008	1.03	mg/L	0.002	0.16%
Crt	31117.5	0.493	mg/L	0.0000	0.987	mg/L	0.0001	0.01%
Cut	199615.8	0.572	mg/L	0.0006	1.14	mg/L	0.001	0.11%
Fet	6265.2	2.54	mg/L	0.023	5.08	mg/L	0.047	0.92%
Kt	37593.5	27.5	mg/L	0.15	55.0	mg/L	0.30	0.54%
Mgt	668362.3	83.8	mg/L	0.06	168	mg/L	0.1	0.07%
Mnt	434650.8	0.960	mg/L	0.0033	1.92	mg/L	0.007	0.34%
Mot	5212.8	0.541	mg/L	0.0000	1.08	mg/L	0.000	0.01%
Nit	4354.8	0.256	mg/L	0.0003	0.512	mg/L	0.0006	0.11%
Pbt	1754.4	0.507	mg/L	0.0010	1.01	mg/L	0.002	0.20%
Vt	83152.7	0.584	mg/L	0.0012	1.17	mg/L	0.002	0.20%
Znt	21227.7	0.581	mg/L	0.0002	1.16	mg/L	0.000	0.03%

Sequence No.: 60
Sample ID: 2705010139
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 71
Date Collected: 5/7/2007 18:51:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010139

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010139

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	339314.4	84.8	%	0.77				0.90%
Yr	302977.6	94.1	%	1.07				1.13%
Bat	368.5	0.00664	mg/L	0.000112	0.0133	mg/L	0.00022	1.69%
Bet	-2192.7	-0.00081	mg/L	0.000003	-0.00163	mg/L	0.000007	0.42%
Cat	3612828.3	306	mg/L	2.8	612	mg/L	5.5	0.90%
Cdt	10.4	0.00050	mg/L	0.000022	0.00100	mg/L	0.000045	4.46%
Cot	6.1	0.00031	mg/L	0.000262	0.00062	mg/L	0.000525	84.11%
Crt	52107.8	0.826	mg/L	0.0018	1.65	mg/L	0.004	0.22%
Cut	883.4	0.00252	mg/L	0.000028	0.00504	mg/L	0.000056	1.10%
Fet	-12.4	-0.00502	mg/L	0.001730	-0.0100	mg/L	0.00346	34.47%
Kt	11408.5	8.35	mg/L	0.016	16.7	mg/L	0.03	0.20%
Mgt	828181.9	104	mg/L	0.9	208	mg/L	1.9	0.90%
Mnt	8360.1	0.0185	mg/L	0.00025	0.0369	mg/L	0.00051	1.37%
Mot	178.1	0.0185	mg/L	0.00009	0.0370	mg/L	0.00018	0.47%
Nit	5.3	0.00031	mg/L	0.000018	0.00062	mg/L	0.000036	5.87%
Pbt	-42.4	-0.0122	mg/L	0.00036	-0.0245	mg/L	0.00072	2.95%
Vt	4990.4	0.0387	mg/L	0.00058	0.0774	mg/L	0.00115	1.49%
Znt	201.0	0.00551	mg/L	0.000289	0.0110	mg/L	0.00058	5.24%

Sequence No.: 61
Sample ID: 2705010139MS
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 72
Date Collected: 5/7/2007 18:55:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010139MS

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010139MS

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	337469.8	84.3	%	0.44				0.52%
Yr	299469.3	93.0	%	0.50				0.54%
Bat	28870.3	0.519	mg/L	0.0017	1.04	mg/L	0.003	0.33%
Bet	58976.2	0.0251	mg/L	0.00006	0.0503	mg/L	0.00012	0.24%
Cat	3939370.3	334	mg/L	0.1	667	mg/L	0.1	0.02%
Cdt	2313.1	0.113	mg/L	0.0006	0.227	mg/L	0.0012	0.52%
Cot	10113.9	0.516	mg/L	0.0018	1.03	mg/L	0.004	0.35%
Crt	83838.8	1.33	mg/L	0.004	2.66	mg/L	0.008	0.29%
Cut	196001.5	0.561	mg/L	0.0002	1.12	mg/L	0.000	0.03%
Fet	6238.5	2.53	mg/L	0.005	5.05	mg/L	0.009	0.18%
Kt	25998.9	19.0	mg/L	0.10	38.0	mg/L	0.19	0.50%
Mgt	914983.3	115	mg/L	0.2	229	mg/L	0.5	0.21%
Mnt	128208.9	0.283	mg/L	0.0004	0.566	mg/L	0.0008	0.15%
Mot	5117.6	0.531	mg/L	0.0006	1.06	mg/L	0.001	0.11%
Nit	4330.8	0.255	mg/L	0.0002	0.509	mg/L	0.0004	0.09%
Pbt	1745.7	0.504	mg/L	0.0012	1.01	mg/L	0.002	0.23%
Vt	77694.0	0.550	mg/L	0.0019	1.10	mg/L	0.004	0.35%
Znt	21128.6	0.578	mg/L	0.0014	1.16	mg/L	0.003	0.24%

Sequence No.: 62
Sample ID: 2705010139MSD
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 73
Date Collected: 5/7/2007 18:59:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010139MSD

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: 2705010139MSD

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	355518.1	88.8	%	6.53				7.35%
Yr	301850.2	93.8	%	1.98				2.11%
Bat	26757.9	0.481	mg/L	0.0348	0.962	mg/L	0.0695	7.23%
Bet	54521.1	0.0232	mg/L	0.00213	0.0465	mg/L	0.00427	9.18%
Cat	3863321.9	327	mg/L	5.3	654	mg/L	10.7	1.63%
Cdt	2146.9	0.105	mg/L	0.0075	0.211	mg/L	0.0150	7.11%
Cot	9388.5	0.479	mg/L	0.0346	0.957	mg/L	0.0692	7.23%
Crt	77157.4	1.22	mg/L	0.122	2.45	mg/L	0.244	9.98%
Cut	178588.2	0.512	mg/L	0.0553	1.02	mg/L	0.111	10.82%
Fet	6087.1	2.47	mg/L	0.069	4.93	mg/L	0.138	2.80%
Kt	25327.5	18.5	mg/L	0.70	37.1	mg/L	1.40	3.78%
Mgt	895119.9	112	mg/L	1.8	224	mg/L	3.6	1.62%
Mnt	117640.7	0.260	mg/L	0.0268	0.520	mg/L	0.0536	10.31%
Mot	4736.9	0.492	mg/L	0.0360	0.983	mg/L	0.0720	7.32%
Nit	4017.0	0.236	mg/L	0.0165	0.472	mg/L	0.0330	6.98%
Pbt	1628.3	0.470	mg/L	0.0323	0.941	mg/L	0.0645	6.86%
Vt	71350.6	0.505	mg/L	0.0517	1.01	mg/L	0.103	10.25%
Znt	19639.9	0.537	mg/L	0.0384	1.07	mg/L	0.077	7.14%

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

Autosampler Location: 4
Date Collected: 5/7/2007 19:12:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	370725.9	92.6	%	1.18				1.27%
Yr	314968.9	97.8	%	0.97				0.99%
Bat	290964.6	5.23	mg/L	0.026	5.23	mg/L	0.026	0.50%
QC value within limits for Ba	Recovery = 104.60%							
Bet	4994775.3	2.12	mg/L	0.032	2.12	mg/L	0.032	1.52%
QC value within limits for Be	Recovery = 105.77%							
Cat	595864.5	50.5	mg/L	0.06	50.5	mg/L	0.06	0.11%
QC value within limits for Ca	Recovery = 100.94%							
Cdt	54018.2	2.62	mg/L	0.014	2.62	mg/L	0.014	0.52%
QC value within limits for Cd	Recovery = 104.85%							
Cot	101886.5	5.19	mg/L	0.015	5.19	mg/L	0.015	0.29%
QC value within limits for Co	Recovery = 103.89%							
Crt	323159.6	5.12	mg/L	0.016	5.12	mg/L	0.016	0.32%
QC value within limits for Cr	Recovery = 102.47%							
Cut	1792910.0	5.14	mg/L	0.003	5.14	mg/L	0.003	0.05%
QC value within limits for Cu	Recovery = 102.72%							
Fet	12511.3	5.07	mg/L	0.004	5.07	mg/L	0.004	0.07%
QC value within limits for Fe	Recovery = 101.39%							
Kt	67279.0	49.2	mg/L	0.10	49.2	mg/L	0.10	0.20%
QC value within limits for K	Recovery = 98.45%							
Mgt	405140.4	50.8	mg/L	0.11	50.8	mg/L	0.11	0.22%
QC value within limits for Mg	Recovery = 101.58%							
Mnt	2372437.2	5.24	mg/L	0.007	5.24	mg/L	0.007	0.13%
QC value within limits for Mn	Recovery = 104.80%							
Mot	49769.9	5.17	mg/L	0.030	5.17	mg/L	0.030	0.59%
QC value within limits for Mo	Recovery = 103.30%							
Nit	89531.2	5.26	mg/L	0.027	5.26	mg/L	0.027	0.50%
QC value within limits for Ni	Recovery = 105.26%							
Pbt	18367.7	5.30	mg/L	0.033	5.30	mg/L	0.033	0.62%
QC value within limits for Pb	Recovery = 106.10%							
Vt	733351.8	5.15	mg/L	0.002	5.15	mg/L	0.002	0.03%
QC value within limits for V	Recovery = 103.03%							
Znt	194596.8	5.30	mg/L	0.032	5.30	mg/L	0.032	0.59%
QC value within limits for Zn	Recovery = 106.10%							

All analyte(s) passed QC.

Sequence No.: 66
Sample ID: CCB
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 0
Date Collected: 5/7/2007 19:15:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	390092.7	97.5	%	0.57				0.58%
Yr	323416.0	100	%	0.8				0.76%
Bat	-3.1	-0.00006	mg/L	0.000024	-0.00006	mg/L	0.000024	42.54%
QC value within limits for Ba	Recovery = Not calculated							
Bet	5.6	0.00000	mg/L	0.000017	0.00000	mg/L	0.000017	712.85%
QC value within limits for Be	Recovery = Not calculated							
Cat	53.8	0.00456	mg/L	0.000485	0.00456	mg/L	0.000485	10.65%
QC value within limits for Ca	Recovery = Not calculated							
Cdt	3.3	0.00016	mg/L	0.000347	0.00016	mg/L	0.000347	215.92%
QC value within limits for Cd	Recovery = Not calculated							
Cot	-0.4	-0.00002	mg/L	0.000193	-0.00002	mg/L	0.000193	916.38%
QC value within limits for Co	Recovery = Not calculated							
Crt	15.1	0.00024	mg/L	0.000008	0.00024	mg/L	0.000008	3.53%
QC value within limits for Cr	Recovery = Not calculated							
Cut	96.5	0.00028	mg/L	0.000363	0.00028	mg/L	0.000363	131.27%
QC value within limits for Cu	Recovery = Not calculated							
Fet	-2.6	-0.00105	mg/L	0.000168	-0.00105	mg/L	0.000168	16.01%
QC value within limits for Fe	Recovery = Not calculated							
Kt	127.0	0.0929	mg/L	0.03093	0.0929	mg/L	0.03093	33.28%
QC value within limits for K	Recovery = Not calculated							
Mgt	36.0	0.00451	mg/L	0.000083	0.00451	mg/L	0.000083	1.83%
QC value within limits for Mg	Recovery = Not calculated							
Mnt	-35.6	-0.00008	mg/L	0.000002	-0.00008	mg/L	0.000002	2.99%
QC value within limits for Mn	Recovery = Not calculated							
Mot	-0.6	-0.00006	mg/L	0.000191	-0.00006	mg/L	0.000191	330.11%
QC value within limits for Mo	Recovery = Not calculated							
Nit	1.0	0.00006	mg/L	0.000043	0.00006	mg/L	0.000043	71.53%
QC value within limits for Ni	Recovery = Not calculated							
Pbt	-8.7	-0.00250	mg/L	0.000038	-0.00250	mg/L	0.000038	1.54%
QC value within limits for Pb	Recovery = Not calculated							
Vt	19.5	0.00014	mg/L	0.000009	0.00014	mg/L	0.000009	6.45%
QC value within limits for V	Recovery = Not calculated							
Znt	1.3	0.00003	mg/L	0.000017	0.00003	mg/L	0.000017	49.46%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

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

Autosampler Location: 5
Date Collected: 5/7/2007 19:18:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: MCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	374539.3	93.6	%	0.43				0.46%
Yr	314469.4	97.7	%	1.55				1.59%
Ba†	150482.4	2.70	mg/L	0.025	2.70	mg/L	0.025	0.92%
QC value within limits for Ba	Recovery = 108.20%							
Be†	2557620.2	1.08	mg/L	0.000	1.08	mg/L	0.000	0.01%
QC value within limits for Be	Recovery = 108.32%							
Ca†	304516.7	25.8	mg/L	0.11	25.8	mg/L	0.11	0.44%
QC value within limits for Ca	Recovery = 103.17%							
Cd†	27557.0	1.34	mg/L	0.009	1.34	mg/L	0.009	0.71%
QC value within limits for Cd	Recovery = 106.98%							
Co†	52404.8	2.67	mg/L	0.022	2.67	mg/L	0.022	0.82%
QC value within limits for Co	Recovery = 106.88%							
Cr†	164576.9	2.61	mg/L	0.002	2.61	mg/L	0.002	0.07%
QC value within limits for Cr	Recovery = 104.37%							
Cu†	901078.6	2.58	mg/L	0.008	2.58	mg/L	0.008	0.30%
QC value within limits for Cu	Recovery = 103.26%							
Fe†	6391.2	2.59	mg/L	0.036	2.59	mg/L	0.036	1.40%
QC value within limits for Fe	Recovery = 103.58%							
K†	34225.0	25.0	mg/L	0.48	25.0	mg/L	0.48	1.90%
QC value within limits for K	Recovery = 100.17%							
Mg†	208852.3	26.2	mg/L	0.15	26.2	mg/L	0.15	0.57%
QC value within limits for Mg	Recovery = 104.73%							
Mn†	1226959.1	2.71	mg/L	0.005	2.71	mg/L	0.005	0.17%
QC value within limits for Mn	Recovery = 108.40%							
Mo†	25352.7	2.63	mg/L	0.019	2.63	mg/L	0.019	0.74%
QC value within limits for Mo	Recovery = 105.24%							
Ni†	46396.2	2.73	mg/L	0.021	2.73	mg/L	0.021	0.76%
QC value within limits for Ni	Recovery = 109.10%							
Pb†	9459.8	2.73	mg/L	0.017	2.73	mg/L	0.017	0.63%
QC value within limits for Pb	Recovery = 109.29%							
V†	373090.3	2.62	mg/L	0.000	2.62	mg/L	0.000	0.01%
QC value within limits for V	Recovery = 104.84%							
Zn†	100597.8	2.74	mg/L	0.025	2.74	mg/L	0.025	0.91%
QC value within limits for Zn	Recovery = 109.69%							

All analyte(s) passed QC.

Sequence No.: 68
Sample ID: 2705010702
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 76
Date Collected: 5/7/2007 19:22:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010702

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010702

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	341289.8	85.3	%	1.52				1.78%
Yr	302527.1	94.0	%	1.12				1.20%
Bat	2212.7	0.0398	mg/L	0.00062	0.0795	mg/L	0.00125	1.57%
Bet	-1074.9	-0.00045	mg/L	0.000019	-0.00090	mg/L	0.000037	4.12%
Cat	3687175.3	312	mg/L	0.3	625	mg/L	0.5	0.08%
Cdt	-7.6	-0.00036	mg/L	0.000010	-0.00072	mg/L	0.000020	2.80%
Cot	34.6	0.00176	mg/L	0.000024	0.00352	mg/L	0.000049	1.39%
Crt	2567.0	0.0407	mg/L	0.00069	0.0814	mg/L	0.00138	1.70%
Cut	2942.9	0.00837	mg/L	0.000098	0.0167	mg/L	0.00020	1.18%
Fet	4759.2	1.93	mg/L	0.016	3.86	mg/L	0.032	0.83%
Kt	54707.4	40.0	mg/L	0.04	80.1	mg/L	0.08	0.09%
Mgt	1670475.5	209	mg/L	0.4	419	mg/L	0.8	0.19%
Mnt	150697.1	0.333	mg/L	0.0006	0.666	mg/L	0.0012	0.17%
Mot	1381.7	0.143	mg/L	0.0019	0.287	mg/L	0.0038	1.33%
Nit	72.5	0.00426	mg/L	0.000045	0.00853	mg/L	0.000090	1.06%
Pbt	-34.4	-0.00994	mg/L	0.000355	-0.0199	mg/L	0.00071	3.57%
Vt	3185.5	0.0226	mg/L	0.00038	0.0452	mg/L	0.00076	1.68%
Znt	1448.5	0.0397	mg/L	0.00044	0.0794	mg/L	0.00087	1.10%

Sequence No.: 69
Sample ID: 2705010703
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 77
Date Collected: 5/7/2007 19:25:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010703

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010703

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	335501.7	83.8	%	0.02				0.02%
Yr	298158.1	92.6	%	0.35				0.38%
Bat	700.1	0.0126	mg/L	0.00015	0.0252	mg/L	0.00030	1.20%
Bet	-1046.5	-0.00044	mg/L	0.000001	-0.00089	mg/L	0.000002	0.28%
Cat	3413625.0	289	mg/L	0.2	578	mg/L	0.4	0.08%
Cdt	-2.3	-0.00009	mg/L	0.000106	-0.00018	mg/L	0.000212	116.10%
Cot	94.4	0.00481	mg/L	0.000259	0.00963	mg/L	0.000518	5.39%
Crt	214.9	0.00341	mg/L	0.000026	0.00681	mg/L	0.000051	0.75%
Cut	2008.1	0.00570	mg/L	0.000035	0.0114	mg/L	0.00007	0.62%
Fet	1633.8	0.662	mg/L	0.0019	1.32	mg/L	0.004	0.29%
Kt	34083.9	24.9	mg/L	0.04	49.9	mg/L	0.08	0.16%
Mgt	1267329.1	159	mg/L	0.1	318	mg/L	0.2	0.07%
Mnt	307442.1	0.679	mg/L	0.0005	1.36	mg/L	0.001	0.08%
Mot	1359.5	0.141	mg/L	0.0010	0.282	mg/L	0.0020	0.72%
Nit	148.2	0.00871	mg/L	0.000216	0.0174	mg/L	0.00043	2.48%
Pbt	-28.5	-0.00823	mg/L	0.000405	-0.0165	mg/L	0.00081	4.92%
Vt	3206.1	0.0225	mg/L	0.00001	0.0450	mg/L	0.00002	0.05%
Znt	641.1	0.0175	mg/L	0.00032	0.0351	mg/L	0.00064	1.82%

Sequence No.: 70
Sample ID: 2705010705
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 78
Date Collected: 5/7/2007 19:30:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010705

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010705

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	347436.4	86.8	%	0.74				0.85%
Yr	305275.0	94.8	%	0.19				0.20%
Bat	593.4	0.0107	mg/L	0.00019	0.0213	mg/L	0.00039	1.82%
Bet	-1430.6	-0.00061	mg/L	0.000001	-0.00121	mg/L	0.000003	0.24%
Cat	2734291.9	232	mg/L	1.7	463	mg/L	3.3	0.71%
Cdt	-11.5	-0.00055	mg/L	0.000113	-0.00110	mg/L	0.000227	20.67%
Cot	29.6	0.00151	mg/L	0.000224	0.00302	mg/L	0.000448	14.84%
Crt	18.6	0.00029	mg/L	0.000075	0.00059	mg/L	0.000150	25.57%
Cut	803.0	0.00230	mg/L	0.000003	0.00459	mg/L	0.000005	0.12%
Fet	45.8	0.0186	mg/L	0.00050	0.0371	mg/L	0.00099	2.68%
Kt	21735.7	15.9	mg/L	0.12	31.8	mg/L	0.23	0.73%
Mgt	910078.4	114	mg/L	0.8	228	mg/L	1.6	0.70%
Mnt	103724.4	0.229	mg/L	0.0004	0.458	mg/L	0.0008	0.17%
Mot	131.5	0.0137	mg/L	0.00015	0.0273	mg/L	0.00029	1.06%
Nit	87.2	0.00513	mg/L	0.000298	0.0103	mg/L	0.00060	5.81%
Pbt	-33.5	-0.00969	mg/L	0.000015	-0.0194	mg/L	0.00003	0.16%
Vt	1856.7	0.0130	mg/L	0.00023	0.0260	mg/L	0.00045	1.74%
Znt	340.2	0.00930	mg/L	0.000016	0.0186	mg/L	0.00003	0.17%

Sequence No.: 71
Sample ID: 2705010710
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 79
Date Collected: 5/7/2007 19:34:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010710

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010710

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	365596.9	91.4	%	0.54				0.59%
Yr	312166.1	97.0	%	0.76				0.79%
Bat	971.7	0.0175	mg/L	0.00008	0.0349	mg/L	0.00016	0.46%
Bet	-885.5	-0.00037	mg/L	0.000015	-0.00075	mg/L	0.000031	4.07%
Cat	1271240.5	108	mg/L	0.0	215	mg/L	0.0	0.02%
Cdt	2.6	0.00014	mg/L	0.000047	0.00029	mg/L	0.000095	33.10%
Cot	86.2	0.00440	mg/L	0.000117	0.00879	mg/L	0.000235	2.67%
Crt	94.5	0.00150	mg/L	0.000115	0.00299	mg/L	0.000229	7.65%
Cut	929.7	0.00266	mg/L	0.000165	0.00532	mg/L	0.000329	6.19%
Fet	435.7	0.176	mg/L	0.0031	0.353	mg/L	0.0062	1.74%
Kt	14058.0	10.3	mg/L	0.03	20.6	mg/L	0.06	0.31%
Mgt	257013.4	32.2	mg/L	0.03	64.4	mg/L	0.06	0.10%
Mnt	82483.2	0.182	mg/L	0.0003	0.364	mg/L	0.0007	0.18%
Mot	124.8	0.0130	mg/L	0.00047	0.0259	mg/L	0.00095	3.67%
Nit	219.0	0.0129	mg/L	0.00011	0.0258	mg/L	0.00022	0.84%
Pbt	-25.0	-0.00721	mg/L	0.000648	-0.0144	mg/L	0.00130	8.99%
Vt	1536.7	0.0108	mg/L	0.00005	0.0215	mg/L	0.00009	0.43%
Znt	370.3	0.0101	mg/L	0.00014	0.0202	mg/L	0.00027	1.35%

Sequence No.: 72
Sample ID: 2705010712
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 80
Date Collected: 5/7/2007 19:38:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010712

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010712

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	360090.2	90.0	%	0.31				0.35%
Yr	310918.3	96.6	%	1.64				1.70%
Bat	670.2	0.0121	mg/L	0.00004	0.0241	mg/L	0.00008	0.33%
Bet	-933.5	-0.00040	mg/L	0.000012	-0.00079	mg/L	0.000025	3.13%
Cat	1018569.5	86.3	mg/L	0.10	173	mg/L	0.2	0.11%
Cdt	-1.5	-0.00005	mg/L	0.000100	-0.00010	mg/L	0.000199	201.53%
Cot	106.9	0.00545	mg/L	0.000124	0.0109	mg/L	0.00025	2.27%
Crt	25.1	0.00040	mg/L	0.000298	0.00080	mg/L	0.000595	74.62%
Cut	1115.6	0.00319	mg/L	0.000067	0.00639	mg/L	0.000134	2.10%
Fet	110.0	0.0445	mg/L	0.00051	0.0891	mg/L	0.00102	1.14%
Kt	17134.8	12.5	mg/L	0.20	25.1	mg/L	0.40	1.58%
Mgt	298469.0	37.4	mg/L	0.05	74.8	mg/L	0.09	0.13%
Mnt	195573.9	0.432	mg/L	0.0005	0.864	mg/L	0.0010	0.11%
Mot	123.3	0.0128	mg/L	0.00026	0.0256	mg/L	0.00052	2.03%
Nit	222.8	0.0131	mg/L	0.00019	0.0262	mg/L	0.00038	1.46%
Pbt	-26.7	-0.00772	mg/L	0.001499	-0.0154	mg/L	0.00300	19.41%
Vt	5226.9	0.0365	mg/L	0.00012	0.0731	mg/L	0.00025	0.34%
Znt	361.0	0.00982	mg/L	0.000000	0.0196	mg/L	0.00000	0.00%

Sequence No.: 73
Sample ID: 2705010716
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 81
Date Collected: 5/7/2007 19:43:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010716

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010716

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	338081.8	84.5	%	0.53				0.63%
Yr	298673.1	92.8	%	1.54				1.66%
Bat	944.6	0.0170	mg/L	0.00000	0.0339	mg/L	0.00000	0.00%
Bet	-1695.6	-0.00071	mg/L	0.000032	-0.00142	mg/L	0.000065	4.53%
Cat	3474650.1	294	mg/L	1.2	589	mg/L	2.5	0.42%
Cdt	-24.9	-0.00120	mg/L	0.000011	-0.00240	mg/L	0.000021	0.89%
Cot	4.6	0.00023	mg/L	0.000276	0.00047	mg/L	0.000552	118.20%
Crt	2827.2	0.0448	mg/L	0.00019	0.0896	mg/L	0.00038	0.43%
Cut	952.0	0.00266	mg/L	0.000205	0.00533	mg/L	0.000410	7.70%
Fet	864.9	0.350	mg/L	0.0068	0.701	mg/L	0.0137	1.95%
Kt	62306.8	45.6	mg/L	0.02	91.2	mg/L	0.04	0.05%
Mgt	1309440.8	164	mg/L	0.9	328	mg/L	1.7	0.53%
Mnt	4233.2	0.00935	mg/L	0.000064	0.0187	mg/L	0.00013	0.68%
Mot	1482.2	0.154	mg/L	0.0011	0.308	mg/L	0.0023	0.74%
Nit	3.5	0.00021	mg/L	0.000155	0.00041	mg/L	0.000311	75.09%
Pbt	-46.3	-0.0134	mg/L	0.00066	-0.0268	mg/L	0.00133	4.95%
Vt	1182.3	0.00854	mg/L	0.000147	0.0171	mg/L	0.00029	1.72%
Znt	235.2	0.00645	mg/L	0.000205	0.0129	mg/L	0.00041	3.17%

Sequence No.: 74
Sample ID: 2705010717
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 82
Date Collected: 5/7/2007 19:47:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2705010717

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2705010717

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	397651.1	99.4	%	0.52				0.52%
Yr	329292.0	102	%	1.1				1.06%
Bat	0.4	0.00001	mg/L	0.000017	0.00001	mg/L	0.000034	237.27%
Bet	55.5	0.00002	mg/L	0.000001	0.00005	mg/L	0.000001	2.44%
Cat	2488.5	0.211	mg/L	0.0043	0.422	mg/L	0.0085	2.02%
Cdt	-3.0	-0.00014	mg/L	0.000017	-0.00028	mg/L	0.000034	11.92%
Cot	0.6	0.00003	mg/L	0.000231	0.00006	mg/L	0.000462	787.40%
Crt	8.9	0.00014	mg/L	0.000082	0.00028	mg/L	0.000165	58.39%
Cut	92.0	0.00026	mg/L	0.000006	0.00053	mg/L	0.000012	2.37%
Fet	2.3	0.00094	mg/L	0.000527	0.00188	mg/L	0.001054	56.14%
Kt	88.7	0.0649	mg/L	0.02925	0.130	mg/L	0.0585	45.05%
Mgt	74.9	0.00939	mg/L	0.000167	0.0188	mg/L	0.00033	1.78%
Mnt	12.6	0.00003	mg/L	0.000015	0.00006	mg/L	0.000029	52.62%
Mot	-6.1	-0.00064	mg/L	0.000064	-0.00128	mg/L	0.000129	10.09%
Nit	2.3	0.00014	mg/L	0.000235	0.00028	mg/L	0.000471	170.37%
Pbt	-11.3	-0.00328	mg/L	0.000004	-0.00656	mg/L	0.000008	0.13%
Vt	20.4	0.00014	mg/L	0.000029	0.00029	mg/L	0.000057	20.08%
Znt	377.8	0.0104	mg/L	0.00001	0.0207	mg/L	0.00002	0.09%

Sequence No.: 78
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 5/7/2007 20:03:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	368469.4	92.1	%	0.93				1.01%
Yr	307477.4	95.5	%	0.16				0.17%
Ba†	291606.1	5.24	mg/L	0.021	5.24	mg/L	0.021	0.41%
QC value within limits for Ba	Recovery = 104.83%							
Be†	5049004.5	2.14	mg/L	0.038	2.14	mg/L	0.038	1.78%
QC value within limits for Be	Recovery = 106.92%							
Ca†	602855.2	51.1	mg/L	0.01	51.1	mg/L	0.01	0.02%
QC value within limits for Ca	Recovery = 102.12%							
Cd†	54163.3	2.63	mg/L	0.008	2.63	mg/L	0.008	0.30%
QC value within limits for Cd	Recovery = 105.13%							
Co†	101986.1	5.20	mg/L	0.019	5.20	mg/L	0.019	0.36%
QC value within limits for Co	Recovery = 104.00%							
Cr†	323342.8	5.13	mg/L	0.008	5.13	mg/L	0.008	0.16%
QC value within limits for Cr	Recovery = 102.52%							
Cu†	1816483.9	5.20	mg/L	0.006	5.20	mg/L	0.006	0.12%
QC value within limits for Cu	Recovery = 104.07%							
Fe†	12823.0	5.20	mg/L	0.070	5.20	mg/L	0.070	1.35%
QC value within limits for Fe	Recovery = 103.91%							
K†	69233.3	50.7	mg/L	0.67	50.7	mg/L	0.67	1.32%
QC value within limits for K	Recovery = 101.31%							
Mg†	412000.7	51.6	mg/L	0.11	51.6	mg/L	0.11	0.21%
QC value within limits for Mg	Recovery = 103.30%							
Mn†	2402029.3	5.31	mg/L	0.015	5.31	mg/L	0.015	0.27%
QC value within limits for Mn	Recovery = 106.11%							
Mo†	49881.4	5.18	mg/L	0.019	5.18	mg/L	0.019	0.37%
QC value within limits for Mo	Recovery = 103.53%							
Ni†	89723.6	5.27	mg/L	0.018	5.27	mg/L	0.018	0.33%
QC value within limits for Ni	Recovery = 105.49%							
Pb†	18433.8	5.32	mg/L	0.010	5.32	mg/L	0.010	0.18%
QC value within limits for Pb	Recovery = 106.48%							
V†	742509.9	5.22	mg/L	0.001	5.22	mg/L	0.001	0.02%
QC value within limits for V	Recovery = 104.31%							
Zn†	195224.7	5.32	mg/L	0.014	5.32	mg/L	0.014	0.27%
QC value within limits for Zn	Recovery = 106.44%							

All analyte(s) passed QC.

Sequence No.: 79
Sample ID: CCB
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 0
Date Collected: 5/7/2007 20:06:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	393948.8	98.4	%	0.47				0.48%
Yr	324839.0	101	%	0.8				0.76%
Ba†	0.3	0.00000	mg/L	0.000034	0.00000	mg/L	0.000034	684.44%
QC value within limits for Ba		Recovery = Not calculated						
Be†	76.8	0.00003	mg/L	0.000030	0.00003	mg/L	0.000030	93.73%
QC value within limits for Be		Recovery = Not calculated						
Ca†	76.0	0.00644	mg/L	0.002303	0.00644	mg/L	0.002303	35.78%
QC value within limits for Ca		Recovery = Not calculated						
Cd†	-0.4	-0.00002	mg/L	0.000205	-0.00002	mg/L	0.000205	>999.9%
QC value within limits for Cd		Recovery = Not calculated						
Co†	-2.5	-0.00013	mg/L	0.000249	-0.00013	mg/L	0.000249	197.04%
QC value within limits for Co		Recovery = Not calculated						
Cr†	9.0	0.00014	mg/L	0.000020	0.00014	mg/L	0.000020	13.77%
QC value within limits for Cr		Recovery = Not calculated						
Cu†	52.2	0.00015	mg/L	0.000154	0.00015	mg/L	0.000154	103.26%
QC value within limits for Cu		Recovery = Not calculated						
Fe†	-3.2	-0.00129	mg/L	0.000149	-0.00129	mg/L	0.000149	11.61%
QC value within limits for Fe		Recovery = Not calculated						
K†	85.2	0.0624	mg/L	0.05302	0.0624	mg/L	0.05302	85.00%
QC value within limits for K		Recovery = Not calculated						
Mg†	45.0	0.00564	mg/L	0.000775	0.00564	mg/L	0.000775	13.74%
QC value within limits for Mg		Recovery = Not calculated						
Mn†	-88.9	-0.00020	mg/L	0.000021	-0.00020	mg/L	0.000021	10.75%
QC value within limits for Mn		Recovery = Not calculated						
Mo†	2.0	0.00020	mg/L	0.000008	0.00020	mg/L	0.000008	3.80%
QC value within limits for Mo		Recovery = Not calculated						
Ni†	5.6	0.00033	mg/L	0.000667	0.00033	mg/L	0.000667	203.58%
QC value within limits for Ni		Recovery = Not calculated						
Pb†	-10.6	-0.00307	mg/L	0.000150	-0.00307	mg/L	0.000150	4.87%
QC value within limits for Pb		Recovery = Not calculated						
V†	28.1	0.00020	mg/L	0.000105	0.00020	mg/L	0.000105	53.05%
QC value within limits for V		Recovery = Not calculated						
Zn†	-2.2	-0.00006	mg/L	0.000079	-0.00006	mg/L	0.000079	125.68%
QC value within limits for Zn		Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 86
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 5/7/2007 20:33:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	351045.7	87.7	%	0.02				0.02%
Yr	298922.6	92.9	%	0.18				0.20%
Ba†	128.4	0.00231	mg/L	0.000119	0.00231	mg/L	0.000119	5.16%
QC value within limits for Ba	Recovery = Not calculated							
Be†	-1441.2	-0.00061	mg/L	0.000021	-0.00061	mg/L	0.000021	3.52%
QC value within limits for Be	Recovery = Not calculated							
Ca†	3044384.3	258	mg/L	0.1	258	mg/L	0.1	0.05%
QC value within limits for Ca	Recovery = 103.14%							
Cd†	-31.8	-0.00152	mg/L	0.000034	-0.00152	mg/L	0.000034	2.22%
QC value within limits for Cd	Recovery = Not calculated							
Co†	26.7	0.00136	mg/L	0.000115	0.00136	mg/L	0.000115	8.46%
QC value within limits for Co	Recovery = Not calculated							
Cr†	-5.6	-0.00009	mg/L	0.000166	-0.00009	mg/L	0.000166	185.34%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	-3176.0	-0.00909	mg/L	0.000043	-0.00909	mg/L	0.000043	0.47%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	247331.8	100	mg/L	0.0	100	mg/L	0.0	0.01%
QC value within limits for Fe	Recovery = 100.17%							
K†	242.8	0.178	mg/L	0.0221	0.178	mg/L	0.0221	12.42%
QC value within limits for K	Recovery = Not calculated							
Mg†	1937125.0	243	mg/L	0.5	243	mg/L	0.5	0.20%
QC value within limits for Mg	Recovery = 97.17%							
Mn†	1065.1	0.00235	mg/L	0.000022	0.00235	mg/L	0.000022	0.92%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	-24.1	-0.00250	mg/L	0.000236	-0.00250	mg/L	0.000236	9.44%
QC value within limits for Mo	Recovery = Not calculated							
Ni†	-16.7	-0.00098	mg/L	0.000551	-0.00098	mg/L	0.000551	56.03%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	-134.2	-0.0388	mg/L	0.00433	-0.0388	mg/L	0.00433	11.17%
QC value within limits for Pb	Recovery = Not calculated							
V†	-421.6	0.00074	mg/L	0.000003	0.00074	mg/L	0.000003	0.44%
QC value within limits for V	Recovery = Not calculated							
Zn†	683.9	0.0188	mg/L	0.00004	0.0188	mg/L	0.00004	0.22%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 87
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 5/7/2007 20:37:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	352647.6	88.1	%	0.44				0.50%
Yr	298558.4	92.7	%	0.54				0.58%
Ba†	15082.8	0.271	mg/L	0.0004	0.271	mg/L	0.0004	0.14%
QC value within limits for Ba	Recovery = 108.44%							
Be†	616178.8	0.261	mg/L	0.0002	0.261	mg/L	0.0002	0.09%
QC value within limits for Be	Recovery = 104.37%							
Ca†	3020672.2	256	mg/L	3.3	256	mg/L	3.3	1.27%
QC value within limits for Ca	Recovery = 102.34%							
Cd†	10820.4	0.522	mg/L	0.0005	0.522	mg/L	0.0005	0.10%
QC value within limits for Cd	Recovery = 104.38%							
Co†	4926.5	0.251	mg/L	0.0008	0.251	mg/L	0.0008	0.31%
QC value within limits for Co	Recovery = 100.47%							
Cr†	16204.6	0.257	mg/L	0.0001	0.257	mg/L	0.0001	0.04%
QC value within limits for Cr	Recovery = 102.76%							
Cu†	92970.0	0.266	mg/L	0.0005	0.266	mg/L	0.0005	0.17%
QC value within limits for Cu	Recovery = 106.57%							
Fe†	247326.3	100	mg/L	0.3	100	mg/L	0.3	0.28%
QC value within limits for Fe	Recovery = 100.16%							
K†	125.7	0.0920	mg/L	0.02592	0.0920	mg/L	0.02592	28.19%
QC value within limits for K	Recovery = Not calculated							
Mg†	1928419.4	242	mg/L	3.1	242	mg/L	3.1	1.27%
QC value within limits for Mg	Recovery = 96.74%							
Mn†	123159.9	0.272	mg/L	0.0003	0.272	mg/L	0.0003	0.12%
QC value within limits for Mn	Recovery = 108.81%							
Mo†	-27.8	-0.00289	mg/L	0.000004	-0.00289	mg/L	0.000004	0.14%
QC value within limits for Mo	Recovery = Not calculated							
Ni†	8356.6	0.491	mg/L	0.0015	0.491	mg/L	0.0015	0.30%
QC value within limits for Ni	Recovery = 98.25%							
Pb†	1702.8	0.492	mg/L	0.0016	0.492	mg/L	0.0016	0.32%
QC value within limits for Pb	Recovery = 98.36%							
V†	37008.1	0.264	mg/L	0.0000	0.264	mg/L	0.0000	0.01%
QC value within limits for V	Recovery = 105.42%							
Zn†	20719.5	0.565	mg/L	0.0002	0.565	mg/L	0.0002	0.03%
QC value within limits for Zn	Recovery = 113.05%							

All analyte(s) passed QC.

Sequence No.: 88
Sample ID: Wash
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 0
Date Collected: 5/7/2007 20:41:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Wash

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: Wash

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	389916.4	97.4	%	0.62				0.64%
Yr	321104.1	99.7	%	0.65				0.65%
Ba†	-3.2	-0.00006	mg/L	0.000042	-0.00006	mg/L	0.000042	73.04%
QC value within limits for Ba	Recovery = Not calculated							
Be†	0.0	0.00000	mg/L	0.000002	0.00000	mg/L	0.000002	>999.9%
QC value within limits for Be	Recovery = Not calculated							
Ca†	26.5	0.00225	mg/L	0.000099	0.00225	mg/L	0.000099	4.43%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	-4.1	-0.00020	mg/L	0.000140	-0.00020	mg/L	0.000140	70.29%
QC value within limits for Cd	Recovery = Not calculated							
Co†	-0.4	-0.00002	mg/L	0.000044	-0.00002	mg/L	0.000044	191.52%
QC value within limits for Co	Recovery = Not calculated							
Cr†	16.7	0.00027	mg/L	0.000328	0.00027	mg/L	0.000328	123.61%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	130.1	0.00037	mg/L	0.000153	0.00037	mg/L	0.000153	40.98%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	0.7	0.00028	mg/L	0.000347	0.00028	mg/L	0.000347	121.96%
QC value within limits for Fe	Recovery = Not calculated							
K†	5.4	0.00392	mg/L	0.033001	0.00392	mg/L	0.033001	840.82%
QC value within limits for K	Recovery = Not calculated							
Mg†	47.7	0.00598	mg/L	0.000730	0.00598	mg/L	0.000730	12.20%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	-138.0	-0.00030	mg/L	0.000015	-0.00030	mg/L	0.000015	4.90%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	-4.5	-0.00046	mg/L	0.000358	-0.00046	mg/L	0.000358	77.42%
QC value within limits for Mo	Recovery = Not calculated							
Ni†	-2.0	-0.00012	mg/L	0.000067	-0.00012	mg/L	0.000067	56.58%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	-15.2	-0.00440	mg/L	0.000708	-0.00440	mg/L	0.000708	16.08%
QC value within limits for Pb	Recovery = Not calculated							
V†	6.4	0.00005	mg/L	0.000091	0.00005	mg/L	0.000091	200.93%
QC value within limits for V	Recovery = Not calculated							
Zn†	-2.0	-0.00005	mg/L	0.000019	-0.00005	mg/L	0.000019	35.25%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 89
Sample ID: QC-25 1ppm
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 5/7/2007 20:44:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: QC-25 1ppm

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: QC-25 1ppm

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	395990.8	99.0	%	0.36				0.36%
Yr	326651.2	101	%	2.5				2.47%
Ba†	60492.9	1.09	mg/L	0.001	1.09	mg/L	0.001	0.08%
QC value within limits for Ba Recovery = 108.73%								
Be†	2395993.0	1.01	mg/L	0.000	1.01	mg/L	0.000	0.03%
QC value within limits for Be Recovery = 101.46%								
Ca†	12120.1	1.03	mg/L	0.024	1.03	mg/L	0.024	2.38%
QC value within limits for Ca Recovery = 102.65%								
Cd†	21130.1	1.02	mg/L	0.004	1.02	mg/L	0.004	0.36%
QC value within limits for Cd Recovery = 102.15%								
Co†	21027.6	1.07	mg/L	0.003	1.07	mg/L	0.003	0.24%
QC value within limits for Co Recovery = 107.21%								
Cr†	66529.3	1.05	mg/L	0.000	1.05	mg/L	0.000	0.04%
QC value within limits for Cr Recovery = 105.47%								
Cu†	351478.2	1.01	mg/L	0.003	1.01	mg/L	0.003	0.34%
QC value within limits for Cu Recovery = 100.69%								
Fe†	2538.2	1.03	mg/L	0.020	1.03	mg/L	0.020	1.98%
QC value within limits for Fe Recovery = 102.84%								
K†	13508.4	9.88	mg/L	0.210	9.88	mg/L	0.210	2.13%
QC value within limits for K Recovery = 98.84%								
Mg†	8534.5	1.07	mg/L	0.024	1.07	mg/L	0.024	2.25%
QC value within limits for Mg Recovery = 107.10%								
Mn†	489088.9	1.08	mg/L	0.001	1.08	mg/L	0.001	0.10%
QC value within limits for Mn Recovery = 108.03%								
Mo†	9651.1	1.00	mg/L	0.002	1.00	mg/L	0.002	0.18%
QC value within limits for Mo Recovery = 100.16%								
Ni†	18746.9	1.10	mg/L	0.002	1.10	mg/L	0.002	0.15%
QC value greater than the upper limit for Ni Recovery = 110.20%								
Pb†	3815.5	1.10	mg/L	0.001	1.10	mg/L	0.001	0.09%
QC value greater than the upper limit for Pb Recovery = 110.20%								
V†	144782.4	1.02	mg/L	0.001	1.02	mg/L	0.001	0.10%
QC value within limits for V Recovery = 101.73%								
Zn†	39975.7	1.09	mg/L	0.002	1.09	mg/L	0.002	0.18%
QC value within limits for Zn Recovery = 108.96%								

QC Failed. Retry.

Sequence No.: 90
Sample ID: QC-25 1ppm
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 5/7/2007 20:47:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: QC-25 1ppm

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: QC-25 1ppm

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	87584.6	21.9	%	3.94				18.01%
Saturated within auto integration window (code 4)								

Yr	313410.0	97.4 %	3.84			3.95%
Bat	-72.3	-0.00129 mg/L	0.000462	-0.00129 mg/L	0.000462	35.68%
QC value less than the lower limit for Ba Recovery = -0.13%						
Bet	1273.4	0.00054 mg/L	0.003563	0.00054 mg/L	0.003563	659.75%
QC value less than the lower limit for Be Recovery = 0.05%						
Cat	9126.6	0.773 mg/L	0.3874	0.773 mg/L	0.3874	50.12%
QC value less than the lower limit for Ca Recovery = 77.30%						
Cdt	125.6	0.00600 mg/L	0.002182	0.00600 mg/L	0.002182	36.35%
QC value less than the lower limit for Cd Recovery = 0.60%						
Cot	-204.3	-0.0104 mg/L	0.00227	-0.0104 mg/L	0.00227	21.84%
QC value less than the lower limit for Co Recovery = -1.04%						
Crt	470.3	0.00746 mg/L	0.003167	0.00746 mg/L	0.003167	42.47%
QC value less than the lower limit for Cr Recovery = 0.75%						
Cut	6994.6	0.0200 mg/L	0.01494	0.0200 mg/L	0.01494	74.64%
QC value less than the lower limit for Cu Recovery = 2.00%						
Fet	1927.0	0.780 mg/L	0.3789	0.780 mg/L	0.3789	48.56%
QC value less than the lower limit for Fe Recovery = 78.04%						
Kt	10334.7	7.56 mg/L	3.560	7.56 mg/L	3.560	47.07%
QC value less than the lower limit for K Recovery = 75.62%						
Mgt	6472.3	0.812 mg/L	0.3915	0.812 mg/L	0.3915	48.20%
QC value less than the lower limit for Mg Recovery = 81.22%						
Mnt	351.3	0.00078 mg/L	0.000948	0.00078 mg/L	0.000948	122.22%
QC value less than the lower limit for Mn Recovery = 0.08%						
Mot	67.0	0.00695 mg/L	0.004236	0.00695 mg/L	0.004236	60.96%
QC value less than the lower limit for Mo Recovery = 0.69%						
Nit	-166.5	-0.00979 mg/L	0.000128	-0.00979 mg/L	0.000128	1.31%
QC value less than the lower limit for Ni Recovery = -0.98%						
Pbt	2.6	0.00076 mg/L	0.004507	0.00076 mg/L	0.004507	590.27%
QC value less than the lower limit for Pb Recovery = 0.08%						
Vt	963.7	0.00680 mg/L	0.007560	0.00680 mg/L	0.007560	111.14%
QC value less than the lower limit for V Recovery = 0.68%						
Znt	233.1	0.00645 mg/L	0.001896	0.00645 mg/L	0.001896	29.38%
QC value less than the lower limit for Zn Recovery = 0.65%						

QC Failed. Continue with analysis.

Sequence No.: 91
Sample ID: ECV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 5/7/2007 20:50:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ECV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: ECV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	367894.6	91.9	%	0.66				0.71%
Yr	308372.5	95.8	%	0.36				0.37%
Bat	292954.8	5.27	mg/L	0.005	5.27	mg/L	0.005	0.09%
QC value within limits for Ba	Recovery = 105.32%							
Bet	5018635.5	2.13	mg/L	0.011	2.13	mg/L	0.011	0.53%
QC value within limits for Be	Recovery = 106.28%							
Cat	601082.0	50.9	mg/L	0.04	50.9	mg/L	0.04	0.08%
QC value within limits for Ca	Recovery = 101.82%							
Cdt	54455.5	2.64	mg/L	0.001	2.64	mg/L	0.001	0.04%
QC value within limits for Cd	Recovery = 105.69%							
Cot	102402.9	5.22	mg/L	0.001	5.22	mg/L	0.001	0.02%
QC value within limits for Co	Recovery = 104.42%							
Crt	325231.2	5.16	mg/L	0.001	5.16	mg/L	0.001	0.02%
QC value within limits for Cr	Recovery = 103.12%							
Cut	1806368.7	5.17	mg/L	0.016	5.17	mg/L	0.016	0.32%
QC value within limits for Cu	Recovery = 103.50%							
Fet	12676.0	5.14	mg/L	0.009	5.14	mg/L	0.009	0.17%
QC value within limits for Fe	Recovery = 102.72%							
Kt	67921.0	49.7	mg/L	0.26	49.7	mg/L	0.26	0.52%
QC value within limits for K	Recovery = 99.39%							
Mgt	410323.6	51.4	mg/L	0.11	51.4	mg/L	0.11	0.21%
QC value within limits for Mg	Recovery = 102.88%							
Mnt	2395734.6	5.29	mg/L	0.015	5.29	mg/L	0.015	0.29%
QC value within limits for Mn	Recovery = 105.83%							
Mot	50085.2	5.20	mg/L	0.006	5.20	mg/L	0.006	0.12%
QC value within limits for Mo	Recovery = 103.96%							
Nit	90061.3	5.29	mg/L	0.003	5.29	mg/L	0.003	0.06%
QC value within limits for Ni	Recovery = 105.89%							
Pbt	18507.6	5.35	mg/L	0.031	5.35	mg/L	0.031	0.58%
QC value within limits for Pb	Recovery = 106.91%							
Vt	739745.5	5.20	mg/L	0.004	5.20	mg/L	0.004	0.08%
QC value within limits for V	Recovery = 103.93%							
Znt	195941.4	5.34	mg/L	0.001	5.34	mg/L	0.001	0.02%
QC value within limits for Zn	Recovery = 106.83%							

All analyte(s) passed QC.

Sequence No.: 92
Sample ID: ECB
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 0
Date Collected: 5/7/2007 20:53:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ECB

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: ECB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	387211.8	96.8	%	1.24				1.28%
Yr	318718.8	99.0	%	0.94				0.95%
Ba†	1.5	0.00003	mg/L	0.000158	0.00003	mg/L	0.000158	566.70%
QC value within limits for Ba	Recovery = Not calculated							
Be†	80.1	0.00003	mg/L	0.000054	0.00003	mg/L	0.000054	157.61%
QC value within limits for Be	Recovery = Not calculated							
Ca†	27.0	0.00229	mg/L	0.001498	0.00229	mg/L	0.001498	65.37%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	1.8	0.00009	mg/L	0.000191	0.00009	mg/L	0.000191	220.40%
QC value within limits for Cd	Recovery = Not calculated							
Co†	-2.0	-0.00010	mg/L	0.000117	-0.00010	mg/L	0.000117	113.55%
QC value within limits for Co	Recovery = Not calculated							
Cr†	11.0	0.00017	mg/L	0.000208	0.00017	mg/L	0.000208	119.89%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	119.8	0.00034	mg/L	0.000244	0.00034	mg/L	0.000244	71.05%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	-3.9	-0.00157	mg/L	0.000909	-0.00157	mg/L	0.000909	57.73%
QC value within limits for Fe	Recovery = Not calculated							
K†	40.9	0.0299	mg/L	0.00758	0.0299	mg/L	0.00758	25.37%
QC value within limits for K	Recovery = Not calculated							
Mg†	32.3	0.00404	mg/L	0.000609	0.00404	mg/L	0.000609	15.06%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	-125.2	-0.00028	mg/L	0.000026	-0.00028	mg/L	0.000026	9.36%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	3.1	0.00032	mg/L	0.000158	0.00032	mg/L	0.000158	49.40%
QC value within limits for Mo	Recovery = Not calculated							
Ni†	-0.7	-0.00004	mg/L	0.000087	-0.00004	mg/L	0.000087	207.90%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	-8.1	-0.00235	mg/L	0.000784	-0.00235	mg/L	0.000784	33.33%
QC value within limits for Pb	Recovery = Not calculated							
V†	21.1	0.00015	mg/L	0.000020	0.00015	mg/L	0.000020	13.48%
QC value within limits for V	Recovery = Not calculated							
Zn†	5.2	0.00014	mg/L	0.000002	0.00014	mg/L	0.000002	1.63%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 93
Sample ID: MRL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 21
Date Collected: 5/7/2007 20:57:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MRL

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	389739.8	97.4	%	1.34				1.37%
Yr	319061.9	99.1	%	0.02				0.02%
Bat	1191.2	0.0214	mg/L	0.00044	0.0214	mg/L	0.00044	2.07%
QC value within limits for Ba		Recovery = 107.01%						
Bet	2554.2	0.00108	mg/L	0.000034	0.00108	mg/L	0.000034	3.18%
QC value within limits for Be		Recovery = 108.29%						
Cat	12325.1	1.04	mg/L	0.001	1.04	mg/L	0.001	0.14%
QC value within limits for Ca		Recovery = 104.39%						
Cdt	129.0	0.00643	mg/L	0.000243	0.00643	mg/L	0.000243	3.79%
QC value within limits for Cd		Recovery = 128.54%						
Cot	1061.1	0.0541	mg/L	0.00082	0.0541	mg/L	0.00082	1.52%
QC value within limits for Co		Recovery = 108.20%						
Crt	669.1	0.0106	mg/L	0.00017	0.0106	mg/L	0.00017	1.59%
QC value within limits for Cr		Recovery = 106.08%						
Cut	3644.6	0.0105	mg/L	0.00013	0.0105	mg/L	0.00013	1.22%
QC value within limits for Cu		Recovery = 104.72%						
Fet	52.1	0.0211	mg/L	0.00022	0.0211	mg/L	0.00022	1.05%
QC value within limits for Fe		Recovery = 105.53%						
Kt	1375.1	1.01	mg/L	0.054	1.01	mg/L	0.054	5.36%
QC value within limits for K		Recovery = 100.61%						
Mgt	882.9	0.111	mg/L	0.0005	0.111	mg/L	0.0005	0.45%
QC value within limits for Mg		Recovery = 110.69%						
Mnt	876.2	0.00194	mg/L	0.000037	0.00194	mg/L	0.000037	1.89%
QC value within limits for Mn		Recovery = 96.76%						
Mot	198.6	0.0206	mg/L	0.00018	0.0206	mg/L	0.00018	0.88%
QC value within limits for Mo		Recovery = 103.06%						
Nit	382.6	0.0225	mg/L	0.00018	0.0225	mg/L	0.00018	0.79%
QC value within limits for Ni		Recovery = 112.46%						
Pbt	67.0	0.0194	mg/L	0.00116	0.0194	mg/L	0.00116	5.98%
QC value within limits for Pb		Recovery = 96.76%						
Vt	315.2	0.00226	mg/L	0.000020	0.00226	mg/L	0.000020	0.87%
QC value within limits for V		Recovery = 113.05%						
Znt	832.8	0.0227	mg/L	0.00041	0.0227	mg/L	0.00041	1.79%
QC value within limits for Zn		Recovery = 113.52%						

All analyte(s) passed QC.

Analytical Sequence
Method: 6010_060831

Seq.	Loc.	ID	Status
1	0	Calib Blank 1	Applied
2	15	Standard 2	Applied
3	15	ICV	QC Passed
4	9	LINEARITY	QC Passed
5	10	ICSA	QC Passed
6	11	ICSAB	QC Failed
7	0	Wash	QC Passed
8	12	QC-25 1ppm	QC Failed
9	12	QC-25 1ppm	QC Failed
10	4	CCV	QC Passed
11	0	ICB	QC Passed
12	20	MRL	QC Passed
13	0	WASH	Analyzed
14	22	MRL6010	Analyzed
15	38	MBLANK6010	Analyzed
16	39	LCS	Analyzed
17	40	LCSD	Analyzed
18	41	2705010118	Analyzed
19	42	2705010118MS	Analyzed
20	43	2705010118MSD	Analyzed
21	44	2705010125	Analyzed
22	45	2705010125MS	Analyzed
23	4	CCV	QC Passed
24	0	CCB	QC Failed
25	0	CCB	QC Passed
26	46	2705010125MSD	Analyzed
27	47	2705010116	Analyzed
28	48	2705010117	Analyzed
29	49	2705010119	Analyzed
30	50	2705010120	Analyzed
31	51	2705010121	Analyzed
32	52	2705010122	Analyzed
33	53	2705010123	Analyzed
34	54	2705010124	Analyzed
35	55	2705010126	Analyzed
36	4	CCV	QC Failed
37	4	CCV	QC Failed
38	4	CCV	QC Failed
39	0	CCB	QC Failed
40	0	CCB	QC Failed
41	0	CCB	QC Failed
42	5	MCV	QC Passed
43	56	2705010127	Analyzed
44	57	2705010128	Analyzed
45	58	2705010129	Analyzed
46	59	2705010130	Analyzed
47	60	2705010131	Analyzed
48	61	2705010132	Analyzed
49	62	2705010133	Analyzed
50	63	2705010135	Analyzed
51	64	2705010136	Analyzed
52	65	MBLANK6010	Analyzed
53	4	CCV	QC Passed
54	0	CCB	QC Passed
55	66	LCS	Analyzed
56	67	LCSD	Analyzed
57	68	2705010137	Analyzed
58	69	2705010137MS	Analyzed
59	70	2705010137MSD	Analyzed
60	71	2705010139	Analyzed
61	72	2705010139MS	Analyzed
62	73	2705010139MSD	Analyzed
63	74	2705010138	Analyzed
64	75	2705010140	Analyzed
65	4	CCV	QC Passed
66	0	CCB	QC Passed
67	5	MCV	QC Passed

68	76	2705010702	Analyzed
69	77	2705010703	Analyzed
70	78	2705010705	Analyzed
71	79	2705010710	Analyzed
72	80	2705010712	Analyzed
73	81	2705010716	Analyzed
74	82	2705010717	Analyzed
75	83	2705020799	Analyzed
76	84	2705020800	Analyzed
77	85	2705020801	Analyzed
78	4	CCV	QC Passed
79	0	CCB	QC Passed
80	86	2705020803	Analyzed
81	87	2705020809	Analyzed
82	88	2705020810_5X	Analyzed
83	89	2705020811_5X	Analyzed
84	90	2705020812_5X	Analyzed
85	91	2705020813	Analyzed
86	10	ICSA	QC Passed
87	11	ICSAB	QC Passed
88	0	Wash	QC Passed
89	12	QC-25 1ppm	QC Failed
90	12	QC-25 1ppm	QC Failed
91	4	ECV	QC Passed
92	0	ECB	QC Passed
93	21	MRL	QC Passed

Standard Preparation Worksheet & Certificate of Analysis

Reagent	Lot #			
HNO3 R# 100401		HCL R# 100402		
IS = Yttrium(ME0509007)0.75mL + Scandium ME0606006)0.5mL to 1000mL w/ 2% HNO3				
Standards	**Lot #**	**Exp. Date**	**Dilution**	
Calibration	ME0704023	(05/01/08)	1:10 ME0704027	
(Prepare daily)	ME0704024	(05/01/08)	1:10	
			CCV/ECV	MCV
CCV/MCV/ECV	ME0610005	(04/10/08)	1:20 ME0610006	1:40 ME0610007
(Prepare daily)				
Spike/LCS	ME0606004	(12/13/07)	1:100 ME0601006	
(Prepare daily)	ME0703002	(05/10/07)	1:100	
	ME0606003	(12/13/07)	1:200	
MRL	ME0703010	(09/16/07)	1:100 ME0603015	
(Prepare daily)				
ICSA	ME0703003	(09/16/07)		
ICSAB	ME0703004	(09/16/07)		
QC-25 1PPM	ME0703005	(09/16/07)		
Linearity	ME0701011	(07/26/07)		
Method Sr/Ti/Sn/SiO2				
Calibration	ME0701012	(05/10/07)		
CCV/ECV	ME0703007	(09/16/07)		
Spike/LCS	ME0703006	(09/16/07)	1:100	
(Prepare daily)				
MRL	ME0703009	(05/10/07)	1:100	
(Prepare daily)				
Method Li				
Std/ICV/MRL	ME0703008	(09/16/07)	1:1000, 200, 40, 10	
(Prepare daily)				
LCS/Spike	ME0701003	(07/04/07)	1:50	
(Prepare daily)				
ccv	ME0701003	(07/04/07)	1:40	
(Prepare daily)				

From May 2005: the calibration std for ICP should be ME0505010,011 not ME0408010 dilution should be 1:20 and 1:40 not 1:200 and 1:400. 1/10/2006.
From 10/4/06: the QC-25 1ppm solution ref # should be ME0610001 not ME0610002.

Intial: lv 37
Date: 4/23/07

METALS STANDARD DOCUMENTATION

Standard: ICPCalibration Stock Std #1
Date Received/Prepped: 4/23/2007
Date Expired: 5/1/2008
Manufacturer: Inorganic Ventures
Matrix: 5% Nitric Acid
Amount: 500 mL

ME #: 0704023
By: wbh
Lot #: A2-MEB235010
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

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CERTIFICATE OF ANALYSIS

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 Principals."

2.0 **DESCRIPTION OF CRM** Custom Solution

M8070403

Catalog No.: MWH-ICAP-CAL-1

Lot Number: **A2-MEB235010**

Matrix: 5% HNO3(abs)

1,000.00 µg/mL each:
Ca, K, Mg, Na,
100.00 µg/mL each:
Al, As, Ba, Co, Cr3, Cu, Fe, Mn, Ni, Pb, Se, Tl, V, Zn,
50.00 µg/mL each: ,
Cd,
40.00 µg/mL each:
Be,
30.00 µg/mL each:
Sr,
20.00 µg/mL each:
Ag

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	100.1 ± 0.5 µg/mL	Arsenic, As	100.2 ± 0.3 µg/mL	Barium, Ba	99.9 ± 0.2 µg/mL
Beryllium, Be	39.98 ± 0.08 µg/mL	Cadmium, Cd	50.05 ± 0.12 µg/mL	Calcium, Ca	997 ± 3 µg/mL
Chromium+3, Cr3	100.1 ± 0.4 µg/mL	Cobalt, Co	100.1 ± 0.2 µg/mL	Copper, Cu	100.1 ± 0.2 µg/mL
Iron, Fe	100.0 ± 0.2 µg/mL	Lead, Pb	100.1 ± 0.3 µg/mL	Magnesium, Mg	996 ± 3 µg/mL
Manganese, Mn	100.1 ± 0.3 µg/mL	Nickel, Ni	100.1 ± 0.2 µg/mL	Potassium, K	1,003 ± 2 µg/mL
Selenium, Se	100.1 ± 0.2 µg/mL	Silver, Ag	20.03 ± 0.06 µg/mL	Sodium, Na	997 ± 5 µg/mL
Strontium, Sr	29.92 ± 0.18 µg/mL	Thallium, Tl	100.0 ± 0.1 µg/mL	Vanadium, V	100.1 ± 0.3 µg/mL
Zinc, Zn	100.1 ± 0.4 µg/mL				

Certified Density: 1.056 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:

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

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

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_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 TRACEBILITY 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#
Ag	ICP Assay	3151	992212
Al	ICP Assay	3101a	010808
As	ICP Assay	3103a	010713
Ba	Gravimetric		See Sec. 4.2
Be	Gravimetric		See Sec. 4.2
Ca	EDTA	928	928
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Cr3	ICP Assay	3112a	990607
Cu	EDTA	928	928
Fe	ICP Assay	3126a	000606
K	ICP Assay	3141a	891312
Mg	EDTA	928	928
Mn	EDTA	928	928
Na	ICP Assay	3152a	990907
Ni	EDTA	928	928
Pb	ICP Assay	3128	030721
Se	ICP Assay	3149	992106
Sr	ICP Assay	3153a	990906
Tl	Gravimetric		See Sec. 4.2
V	ICP Assay	3165	992706
Zn	EDTA	928	928

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	Volhard	999a	999a
Al	EDTA	928	928
As	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	992907
Be	ICP Assay	3105a	892707
Ca	ICP Assay	3109a	000622
Cd	ICP Assay	3108	890312
Co	EDTA	928	928
Cr3	Gravimetric		See Sec. 4.2
Cu	ICP Assay	3114	891811
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	991107
Mn	ICP Assay	3132	890903
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	000612
Pb	EDTA	928	928
Se	Gravimetric		See Sec. 4.2
Sr	EDTA	928	928
Tl	ICP Assay	3158	993012
V	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:
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** 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 (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
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 (IPQ), 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: April 16, 2007
Expiration Date:

EXPIRES
1 M 4 2008

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Nick Maida, Product Documentation Administrator

Certificate Approved By: Katalin Le, QC Manager

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

Intial: WB
Date: 4/23/08

METALS STANDARD DOCUMENTATION

Standard:	ICPCalibration Stock Std #2	**ME #:**	0704024
Date Received/Prepped:	4/23/2007	**By:**	wbh
Date Expired:	5/1/2008	**Lot #:**	A2-MEB235011
Manufacturer:	Inorganic Ventures	**Certificate:**	Y
Matrix:	5% Nitric Acid + Trace HF	**NIST SRM:**	Varies
Amount:	500 mL	**Storage:**	Room Temp

Component	Comment	Conc.	Unit:
Mo	(P/N MWH-ICAP-CAL-2)	100	ug/ml

INORGANIC™ VENTURES

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inorganicventures.com

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info@inorganicventures.com

CERTIFICATE OF ANALYSIS

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 Principals."

2.0 **DESCRIPTION OF CRM** Custom Solution

M20704024

Catalog No.: MWH-ICAP-CAL-2

Lot Number: **A2-MEB235011**

Matrix: tr. HF, 5% HNO_3(abs)

100.00 µg/mL each:
Mo, Sb, Sn, Ti,
50.00 µg/mL each:
B

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	100.4 ± 0.3 µg/mL	Boron, B	50.07 ± 0.28 µg/mL	Molybdenum, Mo	100.3 ± 0.3 µg/mL
Tin, Sn	100.3 ± 0.3 µg/mL	Titanium, Ti	100.5 ± 0.2 µg/mL		

Certified Density: 1.037 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:

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

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

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_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 **TRACEBILITY 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.

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 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: April 16, 2007
Expiration Date:

EXPIRES
1-1-2008

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Nick Maida, Product Documentation Administrator

Certificate Approved By: Katalin Le, QC Manager

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

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	991907
Mo	Gravimetric		See Sec. 4.2
Sb	ICP Assay	3102a	990707
Sn	ICP Assay	3161a	993107
Ti	Gravimetric		See Sec. 4.2

ELEMENT	METHOD	NIST SRM#	SRM LOT#
B	Gravimetric		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Gravimetric		See Sec. 4.2
Sn	Gravimetric		See Sec. 4.2
Ti	ICP Assay	3162a	992801

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:
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** 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.

HF Note: This standard should not be prepared or stored in glass.

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.

Intial:
Date: 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% HNO3 = tr HF
Amount: 100 mL x 10

ME #: 0610005
By: WBH
Lot #: 06j053
Certificate: Y
NIST SRM: Varius
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		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

CPI INTERNATIONAL

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www.cpiinternational.com

Expiry: 4/10/2008

Certificate of Analysis

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

M70610025

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-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.

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.

METALS STANDARD DOCUMENTATION

CVB
6/19/06

Standard:	ICP/ICPMS LCS/SPIKE Solution	**ME #:**	0606004
Date Received/Prepped:	6/19/2006	**By:**	wbh
Date Expired:	12/13/2006	**Lot #:**	06F103
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	5% HNO3 + 0.1% HF	**NIST SRM:**	3100 Series
Amount:	10 x 100 mL	**Storage:**	Room Temp

Component	Comment	Conc. Unit:
Iron	CPI P/N: 4400-050314RH01	500 mg/L
Aluminum		200 mg/L
Barium		100 mg/L
Cobalt		100 mg/L
Chromium		100 mg/L
Copper		100 mg/L
Molybdenum		100 mg/L
Strontium		100 mg/L
Titanium		100 mg/L
Vanadium		100 mg/L
Zinc		100 mg/L
Tin		100 mg/L
Silver		50 mg/L
Boron		50 mg/L
Manganese		50 mg/L
Nickel		50 mg/L
Antimony		50 mg/L
Arsenic		20 mg/L
Cadmium		20 mg/L
Lead		20 mg/L
Selenium		20 mg/L
Thallium		20 mg/L
Uraium		5 mg/L
Beryllium		100 mg/L
Tin		

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Innovative Solutions in Analytical Science and Technology

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

Expiry: 12/13/2007

Certificate of Analysis

Part Number: **4400-050314RH01**
Lot Number: **06F103**
Shelf Life: **18 months**

M20 606 04

MWH Labs
5% HNO3 + 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 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.

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.

Intial: WBH
Date: 3/5/07

METALS STANDARD DOCUMENTATION

Standard:	ICP Spike solution	**ME #:**	0703002
Date Received/Prepped:	3/5/2007	**By:**	WBH
Date Expired:	5/10/2007	**Lot #:**	
Manufacturer:	MWH-WBH	**Certificate:**	Y
Matrix:	2% HNO3	**NIST SRM:**	3100 SERIES
Amount:	100mL x 2	**Storage:**	Room Temp

Component	Comment	Conc. Unit:
AS	8.0mL ME0611005/100mL	80 ppm
PB	8.0mL ME0511020/100mL	80 ppm
SE	8.0mL ME0703001/100mL	80 ppm
TL	8.0mL ME0509006/100mL	80 ppm

Intial: WBH
Date: 11/1/06

METALS STANDARD DOCUMENTATION

Standard:	Arsenic Stock Std	**ME #:**	0611005
Date Received/Prepped:	11/1/2006	**By:**	WBH
Date Expired:	10/1/2007	**Lot #:**	Y-AS02029
Manufacturer:	IV	**Certificate:**	Y
Matrix:	1.4% HNO3	**NIST SRM:**	
Amount:	100mL	**Storage:**	Room Temp

Component	Comment	Conc.	Unit:
AS	Cat # CGAS1-1	1004	ppm

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fax: 732.901.1903
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

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 Principals."

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:	**Y -AS02029**
Starting Material:	As Polycrystaline lump
Starting Material Purity (%):	99.999055
Starting Material Lot No:	23115
Matrix:	1.4% (abs) HNO3

MT061100G

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Concentration: 1004 ± 2 µg/mL 995 ± 2 µg/g

Certified Density: 1.009 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:

$$\text{Certified Value } (\bar{x}) = \frac{\sum x1}{n}$$

$$\text{Uncertainty } (\pm) = \frac{2[(\sum s1)2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean
x1 = individual results
n = number of measurements
$\sum s1$ = The summation of all significant estimated errors (Most common are the errors from instrumental measurement weighting, 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 IV 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** **1004 ± 2 µg/mL 995 ± 2 µg/g (Avg 2 runs)**
ICP Assay NIST SRM 3103a Lot Number: 010713

Assay Method #2 **1003 ± 5 µg/mL 994 ± 5 µg/g**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

4.2 **BALANCE CALIBRATION** - All balances are checked daily using in-house procedure number 6-IMM001. The weights used for testing are annually compared to Gerhart Scale Corporation's 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 by Gerhart Scale Corp. of South Amboy. 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. The in-house procedure No. is 2-QC-001.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** - In-house procedure 3-QC-002 is used to calibrate all Class A glassware used in the manufacture 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.

O	Al	0.00038	M	Dy	< 0.01884	O	Li	< 0.00002	M	Pr	< 0.00094	M	Te	< 0.09418
O	Sb	< 0.01000	M	Er	< 0.01570	M	Lu	< 0.00126	O	Re	< 0.01000	M	Tb	< 0.00094
s	As		M	Eu	< 0.00942	O	Mg	0.00017	M	Rh	< 0.00314	M	Tl	< 0.00314
M	Ba	< 0.03139	M	Gd	< 0.00314	O	Mn	0.00005	M	Rb	< 0.00314	M	Th	< 0.00314
M	Be	< 0.00157	M	Ga	< 0.00314	O	Hg	< 0.01200	M	Ru	< 0.00628	M	Tm	< 0.00126
M	Bi	< 0.00126	M	Ge	< 0.01884	M	Mo	< 0.00628	M	Sm	< 0.00314	O	Sn	0.00073
O	B	< 0.01200	M	Au	< 0.00942	M	Nd	< 0.00628	M	Sc	< 0.03139	M	Ti	< 0.15697
M	Cd	< 0.00942	M	Hf	< 0.00628	O	Ni	< 0.00200	M	Se	< 0.02511	M	W	< 0.03139
O	Ca	0.00206	M	Ho	< 0.00157	O	Nb	< 0.00200	O	Si	0.00476	M	U	< 0.00628
M	Ce	< 0.01570	M	In	< 0.03139	n	Os		M	Ag	< 0.00628	M	V	< 0.00628
M	Cs	< 0.00094	M	Ir	< 0.01570	M	Pd	< 0.01570	O	Na	0.00159	M	Yb	< 0.00314
M	Cr	< 0.01570	O	Fe	< 0.00110	O	P	< 0.00260	M	Sr	< 0.00157	M	Y	< 0.12558
M	Co	< 0.00942	M	La	< 0.00157	M	Pt	< 0.00628	O	S	< 0.02500	O	Zn	0.00044
M	Cu	< 0.01884	M	Pb	< 0.00942	O	K	0.00048	M	Ta	< 0.02198	M	Zr	< 0.01570

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

6.0 INTENDED USE

For the calibration of analytical instruments 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 IV 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 amorphoric form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (One gram of powered sample is fused in a Ni0 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 Ni0 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-OES189.042 nm	0.05 / 0.005 µg/mL	1	atom	Cr
ICP-OES193.696 nm	0.1 / 0.01 µg/mL	1	atom	V, Ge
ICP-OES 228.812 nm	0.1 / 0.01 µg/mL	1	atom	Cd, Pt, 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 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 (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
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 (IPQ), 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 IV 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 (P-SP01020) of chemically-stable solutions performed at Inorganic Ventures Labs indicate a CRM shelf-life of four years for solutions packaged in 500-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. Inorganic Ventures Labs concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

Certification Date: September 15, 2005

Expiration Date: EXPIRES 1 9 2007

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Nick Maida, QA Administrator

Certificate Approved By: Katalin Le, QC Manager

Certifying Officer: Paul Gaines, PhD., Technical Director

Intial: WBH
Date: 3/5/07

METALS STANDARD DOCUMENTATION

Standard:	Selenium Stock Standard	**ME #:**	0703001
Date Received/Prepped:	3/5/2007	**By:**	wbh
Date Expired:	8/22/2008	**Lot #:**	6.00E+228
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	2% HNO3	**NIST SRM:**	3148
Amount:	100 mL	**Storage:**	Room Temp

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

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AUG 2 2 08

CERTIFICATE OF ANALYSIS

MZ070300 1

P/N 4400-1000491
P/N S4400-1000491

Single-Element Selenium Standard
Se in 2% HNO_3
1000 ± 3 µg/mL

Lot # 06E228

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-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 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.

Intial: WBH
Date: 6/9/06

METALS STANDARD DOCUMENTATION

Standard: ICP LCS/Spike stock Std
Date Received/Prepped: 6/19/2006
Date Expired: 12/13/2007
Manufacturer: MWH-WBH
Matrix: 5% HNO3
Amount: 500 mL

ME #: 0605003
By: WBH
Lot #: 06F102
Certificate: Y
NIST SRM: Various
Storage: Room Temp

Component	Comment	Conc. Unit:
CA	P/N 4400-130309	10000 PPM
K	per 500ml DI	4000 PPM
MG		4000 PPM
NA		10000 PPM

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CERTIFICATE OF ANALYSIS

P/N: 4400-130309
Lot Number: 06F102
Shelf Life: 18 months
Expiration Date: 12/13/2007

MT0606003

MWH
Dat MW Standard
µg/mL ± 0.5% in 5% HNO_3

Na 10,000 Ca 10,000 Mg 4,000 K 4,000

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.

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.

Intial: WBH
Date: 3/16/07

METALS STANDARD DOCUMENTATION

Standard: ICP MRL Working stock Solution
Date Received/Prepped: 3/16/2007
Date Expired: 9/16/2007
Manufacturer: MWH-WBH
Matrix: 5% HNO3
Amount: 2X100 mL

ME #: 0703010
By: WBH
Lot #:
Certificate:
NIST SRM:
Storage: Room Temp

Component	Comment	Conc.	Unit:
Al	10mL ME0609001	5	ppm
Sb		5	ppm
As		10	ppm
Ba		2	ppm
Be		0.1	ppm
B		5	ppm
Cd		0.5	ppm
Ca		100	ppm
Cr		1	ppm
Co		5	ppm
Cu		1	ppm
Fe		2	ppm
Pb		2	ppm
Mg		10	ppm
Mn		0.2	ppm
Mo		2	ppm
Ni		2	ppm
K		100	ppm
Se		10	ppm
Ag		1	ppm
Na		100	ppm
Zn		2	ppm
V		0.2	ppm
Tl		10	ppm
Li		0.1	ppm
Ti		2	ppm
Sr		1	ppm
Sn		20	ppm

Intial: WBH
Date: 5/25/06

METALS STANDARD DOCUMENTATION

Standard:	ICP MRL Stock Solution	**ME #:**	0609001
Date Received/Prepped:	9/25/2006	**By:**	WBH
Date Expired:	9/20/2007	**Lot #:**	06I162
Manufacturer:	CPI	**Certificate:**	Yes
Matrix:	2% HNO3 + tr HF	**NIST SRM:**	3100 series
Amount:	100 mL	**Storage:**	Room Temp

Component	Comment	Conc. Unit:
Al	Part # 4400-060915RH01	50 ppm
Sb		50 ppm
As		100 ppm
Ba		20 ppm
Be		1 ppm
B		50 ppm
Cd		5 ppm
Ca		1000 ppm
Cr		10 ppm
Co		50 ppm
Cu		10 ppm
Fe		20 ppm
Pb		20 ppm
Mg		100 ppm
Mn		2 ppm
Mo		20 ppm
Ni		20 ppm
K		1000 ppm
Se		100 ppm
Ag		10 ppm
Na		1000 ppm
Zn		20 ppm
V		2 ppm
Tl		10 ppm
Li		1 ppm
Ti		20 ppm
Sr		10 ppm
Sn		200 ppm

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M706090 01

Expiry: 9/20/2007

Certificate of Analysis

Part Number: **4400-060915RH01**
Lot Number: **06I162**
Shelf Life: **12 months**

MWH
Custom Standard
2% HNO3 + tr HF

Concentrations in ug/mL ± 0.5%

Al	50	Pb	20	Zn	20
Sb	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 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.

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.

Intial: DYH
Date: 3/16/07

METALS STANDARD DOCUMENTATION

Standard: Interference Check Std A(ICSA)
Date Received/Prepped: 3/16/2007
Date Expired: 9/16/2007
Manufacturer: MWH-DYH
Matrix: 5% HNO3
Amount: 500 mL

ME #: 0703003
By: DYH
Lot #: VARIOUS
Certificate:
NIST SRM:
Storage: Room Temp

Component	Comment	Conc.	Unit:
Al	25mL ME0603001/500mL	250	PPM
Ca		250	PPM
Fe		100	PPM
Mg		250	PPM

Intial: WBH
Date: 3/2/06

METALS STANDARD DOCUMENTATION

Standard:	ICP ICSA Stock solution	**ME #:**	0603001
Date Received/Prepped:	3/2/2006	**By:**	WBH
Date Expired:	8/23/2007	**Lot #:**	06A078
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	5% HNO3	**NIST SRM:**	varius
Amount:	500mL	**Storage:**	Room Temp

Component	Comment	Conc.	Unit:
AL	P/N 4400-INTA1-500	5000	mg/L
CA		5000	mg/L
FE		2000	mg/L
MG		2000	mg/L

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CERTIFICATE OF ANALYSIS

P/N 4400-INTA1-500

CLP Interferents A Solution
in 5% HNO_3

M060301

Lot # 06A078

Material Source: Metals and Salts
Source Purity: 99.99+%

Elements and Concentrations: µg/mL

Al 5000 Ca 5000 Fe 2000 Mg 5000

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

Starting materials were analyzed by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against an independent source traceable to the National Institute of Standards and Technology's SRM 3100 series.

Accuracy and stability are guaranteed to within plus or minus 0.5% 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.

Intial: DYH
Date: 3/16/07

METALS STANDARD DOCUMENTATION

Standard: Interference Check Std AB(ICSAB)
Date Received/Prepped: 3/16/2007
Date Expired: 9/16/2007
Manufacturer: MWH-DYH
Matrix: 5% HNO3 + 10% HCl
Amount: 500 mL

ME #: 0703004
By: DYH
Lot #: VARIOUS
Certificate:
NIST SRM:
Storage: Room Temp

Component	Comment	Conc. Unit:
Al	25mL ME0603001/500mL	250 ppm
Ca		250 ppm
Fe		100 ppm
Mg		250 ppm
Ag	2.5mL ME0603002/500mL	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

Intial: WBH
Date: 3/2/06

METALS STANDARD DOCUMENTATION

Standard:	ICP ICSA Stock solution	**ME #:**	0603001
Date Received/Prepped:	3/2/2006	**By:**	WBH
Date Expired:	8/23/2007	**Lot #:**	06A078
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	5% HNO3	**NIST SRM:**	varius
Amount:	500mL	**Storage:**	Room Temp

Component	Comment	Conc.	Unit:
AL	P/N 4400-INTA1-500	5000	mg/L
CA		5000	mg/L
FE		2000	mg/L
MG		2000	mg/L

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Innovative Solutions in Analytical Science and Technology

CERTIFICATE OF ANALYSIS

P/N 4400-INTA1-500

CLP Interferents A Solution
in 5% HNO_3

M060301

Lot # 06A078

Material Source: Metals and Salts
Source Purity: 99.99+%

Elements and Concentrations: µg/mL

Al 5000 Ca 5000 Fe 2000 Mg 5000

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

Starting materials were analyzed by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against an independent source traceable to the National Institute of Standards and Technology's SRM 3100 series.

Accuracy and stability are guaranteed to within plus or minus 0.5% 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.

Intial: WBH
Date: 3/2/06

METALS STANDARD DOCUMENTATION

Standard:	ICSB Stock Solution	**ME #:**	0603002
Date Received/Prepped:	3/2/2006	**By:**	WBH
Date Expired:	8/23/2007	**Lot #:**	04L149
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	5% HNO3	**NIST SRM:**	3100 series
Amount:	100 mL	**Storage:**	Room Temp

Component	Comment	Conc.	Unit:
Ag	P/N 4400-INTB1-100	100	ppm
Ba		50	ppm
Be		50	ppm
Cd		100	ppm
Co		50	ppm
Cr		50	ppm
Mn		50	ppm
Ni		100	ppm
Pb		100	ppm
V		50	ppm
Zn		100	ppm
Sb		50	ppm

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Innovative Solutions in Analytical Science and Technology

MT0603-02

CERTIFICATE OF ANALYSIS

P/N 4400-INTB1-100

CLP Analytes B Solution
in 5% HNO_3

Lot # 04L149

Material Source: Metals and Salts
Source Purity: 99.99+%

Elements and Concentrations: µg/mL

Ag	100	Ba	50	Be	50	Cd	100
Co	50	Cr	50	Cu	50	Mn	50
Ni	100	Pb	100	V	50	Zn	100

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

Starting materials were analyzed by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against an independent source traceable to the National Institute of Standards and Technology's SRM 3100 series.

Accuracy and stability are guaranteed to within plus or minus 0.5% 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.

Intial: DYH
Date: 3/16/07

METALS STANDARD DOCUMENTATION

Standard: ICP QC-25 1PPM
Date Received/Prepped: 3/16/2007
Date Expired: 9/16/2007
Manufacturer: MWH-DYH
Matrix: 5% HNO3
Amount: 500 mL

ME #: 0703005
By: DYH
Lot #: VARIOUS
Certificate:
NIST SRM:
Storage: Room Temp

Component	Comment	Conc.	Unit:
Ag	5mL ME0608006+ 5mL ME0608007 per 500mL DI	1	ppm
Al		1	
B		1	
Ba		1	
Be		1	
Ca		1	
Cd		1	
Co		1	
Cr		1	
Cu		1	
Fe		1	
K		10	
Li		1	
Mg		1	
Mn		1	
Mo		1	
Na		1	
Ni		1	
Pb		1	
Sb		1	
Se		1	
Si		0.5	
Sr		1	
Ti		1	
Tl		1	
V		1	
Zn		1	

Intial: WBH
Date: 8/31/06

METALS STANDARD DOCUMENTATION

Standard:	QC Check Std 21	**ME #:**	0608006
Date Received/Prepped:	8/31/2006	**By:**	WBH
Date Expired:	8/31/2007	**Lot #:**	062504J
Manufacturer:	Crescent Chemical	**Certificate:**	Y
Matrix:	5% HNO3 + tr. Tartaric Acid	**NIST SRM:**	Various
Amount:	100 mL	Room temp. storage	

Component	Comment	Conc.	Unit:
AS	QC-021.1	100	ppm
Be		100	ppm
Ca		100	ppm
Cd		100	ppm
Co		100	ppm
Cr		100	ppm
Cu		100	ppm
Fe		100	ppm
Li		100	ppm
Mg		100	ppm
Mn		100	ppm
Mo		100	ppm
Ni		100	ppm
Pb		100	ppm
Sb		100	ppm
Se		100	ppm
Sr		100	ppm
Ti		100	ppm
Tl		100	ppm
V		100	ppm
Zn		100	ppm

MZ0608006

Laboratory Report - Certificate of Analysis

Environmental Multielement Standard

QC Check Standard 21

CATALOG NO: QC-021.1

CONTENTS: See Below

MATRIX: 5% HNO_3/tr. F^-/tr. Tartaric Acid **LOT NO.:** 062504J

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: 3102a, 3103a, 3105a, 3108, 3109a, 3112a, 3113, 3114, 3126a, 3128, 3129a, 3131a, 3132, 3134, 3136, 3149, 3153a, 3158, 3162a, 3165, and 3168a.

Concentrations are given in µg/mL unless noted otherwise.

As 100	**Be 100**	**Ca 100**	**Cd 100**	**Co 100**
Cr 100	**Cu 100**	**Fe 100**	**Li 100**	**Mg 100**
Mn 100	**Mo 100**	**Ni 100**	**Pb 100**	**Sb 100**
Se 100	**Sr 100**	**Ti 100**	**Tl 100**	**V 100**
Zn 100				

Crescent Chemical Co. Inc.

Julie M. MacIntosh

QA Manager

EXPIRES: August 2007

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 Dive, Islandia, NY 11749
(516) 348-0333 - Fax (516) 348-0913

Intial: WBH
Date: 8/31/06

METALS STANDARD DOCUMENTATION

Standard:	QC Check Std 7	**ME #:**	0608007
Date Received/Prepped:	8/31/2006	**By:**	WBH
Date Expired:	8/31/2007	**Lot #:**	062504K
Manufacturer:	Crescent Chemical	**Certificate:**	Y
Matrix:	5% HNO3 + tr. HF	**NIST SRM:**	Various
Amount:	100 mL	Room temp. storage	

Component	Comment	Conc.	Unit:
Ag	QC-007.1	100	ppm
Al		100	ppm
B		100	ppm
Ba		100	ppm
K		1000	ppm
Na		100	ppm
Si		50	ppm

MT060800 7

Laboratory Report - Certificate of Analysis

Environmental Multielement Standard

QC Check Standard 7

CATALOG NO: QC-007.1

CONTENTS: See Below

MATRIX: 5% HNO_3/tr. F^- **LOT NO.:** 062504K

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 µg/mL unless noted otherwise.

Ag	**100**	**Al**	**100**	**B**	**100**	**Ba**	**100**	**K**	**1,000±5**
Na	**100**	**Si**	**50.0**						

Crescent Chemical Co. Inc.

Julie M. MacIntosh

QA Manager

EXPIRES: August 2007

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Intial: WBH
Date: 1/26/07

METALS STANDARD DOCUMENTATION

Standard:	ICP LINEARITY CHECK	**ME #:**	0701011
Date Received/Prepped:	1/26/2007	**By:**	WBH
Date Expired:	7/26/2007	**Lot #:**	
Manufacturer:	MWH-WBH	**Certificate:**	Y
Matrix:	5% HNO3	**NIST SRM:**	3100 SERIES
Amount:	500mL	**Storage:**	Room Temp

Component	Comment	Conc.	Unit:
CA	15.0mL ME0509005/500mL	300	ppm
K	15.0mL ME0509001/500mL	300	ppm
MG	10.0mL ME0509002/500mL	200	ppm
NA	15.0mL ME0509004/500mL	300	ppm
FE	5.0mL ME0701008/500mL	100	ppm

Intial: WBH
Date: 1/26/07

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 #: 06I143
Certificate:
NIST SRM: 3126a
Storage: Room Temp

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

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

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JUL 19 '08

CERTIFICATE OF ANALYSIS

PTE701005

P/N 4400-10M261
P/N S4400-10M261

Single-Element Iron Standard
Fe in 4% HNO_3
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.

	ppb	DL
Al	INT	0.1
Sb	0.35	0.1
As	ND	6
Ba	ND	0.1
Be	ND	0.1
Bi	ND	0.1
B	ND	4
Br	ND	10
Cd	ND	0.1
Ca	15	7
Ce	ND	0.1
Cs	0.34	0.1
Cr	3.3	1
Co	12	0.1

	ppb	DL
Cu	6.4	0.1
Dy	ND	0.1
Er	ND	0.1
Eu	ND	0.1
Gd	ND	0.1
Ga	0.41	0.1
Ge	INT	0.1
Au	ND	0.1
Hf	ND	0.1
Ho	ND	0.1
I	0.34	0.2
Ir	ND	0.1
Fe	X	30
La	ND	0.1

	ppb	DL
Pb	ND	0.1
Li	ND	0.4
Lu	ND	1
Mg	1.3	0.2
Mn	INT	1
Hg	ND	0.2
Mo	4.9	0.1
Nd	ND	0.1
Ni	9.3	0.1
Nb	ND	0.1
Os	ND	0.1
Pd	ND	0.1
P	28	10
Pt	ND	0.1

	ppb	DL
K	ND	70
Pr	ND	0.1
Re	ND	0.1
Rh	ND	0.1
Rb	ND	0.1
Ru	ND	0.1
Sm	ND	0.1
Se	ND	6
Si	INT	8
Ag	ND	0.1
Na	8	1
Sr	ND	0.1
Ta	ND	0.1
Te	ND	0.1

	ppb	DL
Tl	0.18	0.1
Th	ND	0.1
Tm	ND	0.1
Sn	0.67	0.1
Ti	0.21	0.1
W	0.13	0.1
U	ND	0.1
V	ND	1
Yb	ND	0.1
Y	ND	0.1
Zn	8.6	2
Zr	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.

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LOG#	CLIENT	SA - ID	MIX	VOLUME	COMMENTS
	2007 DIGESTION	JRF	05-04-07		HH03 Ref 100410 (1ml) HCl Ref 100407 (5ml)
BLANK					
LCS					ME 0606004 → (5ml)
LCSD					
2705010137	KERRMCGEE-MP	PC-132	~~50ml~~ AQ	50ml → 50ml	MRL
↓ MS	↓	↓	↓	↓	ME 0704006 → (5ml)
↓ MSD		↓			
2705010139		M-95			
↓ MS		↓			
↓ MSD		M-96			
2705010138		MD-5			
↓ 0140	↓	PC93			
2705010702	KERRMGEE-NV	PC91			
0703		PC77			
0705		PC79			
0710		PC986			
0712		PL4			
0716		EB043007			
0717		PC-1			
2705020799		PC-2			
0800		PC20			
0801		PC62			
0803		PC67			
0809		PC66			
0810		PC660			
0811		PC65			
0812		EB050107			
0813	↓		↓	↓	
	2007 DIGEST	JRF	05-04-07		

To Page No._____

Witnessed & Understood by me, | Date | Invented by | Date

Recorded by