TABLE OF CONTENTS

Level IV Data Package

MWH Group 212147

Method: 6010 CR

Sample No.:

2708020317
2708020318
2708020319
2708020320
2708020321
2708020322
2708020323
2708020324
2708020325
2708020326
2708020327
2708020328
2708020329
2708020330
2708020331
2708020342
2708020343
2708020344

EPA 200.7/6010B QC Check List

Analyst WSL Analysis Date 8/13/07 Reviewer/Date VR 8/16/07

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 for Zn MS/MSD "M3"

✓ Special Det Code noted on the cover sheet Cr6010.

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 08/08/07

Int: WSL
Date: 8/13/07

Method 200.7/6010

Received by Supervisor on 14-aug-2007
QIR initiated by: wbh

QUALITY INVESTIGATION REPORT **QIR No.:** METL_213187

Analysis date: 081307
Analyst: wbh
Method reference: ML-EPA 601
Analytical instrument: OPTIMA
Extraction Date: 080207
Prepared By: jrf

Group	Sample#	Sample ID	Customer	QC Ref	Test	PM
212147	2708020323	M-19	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020321	M-34	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020322	M-35	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020320	M-50	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020327	I-K	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020324	M-39	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020326	M-61	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020325	M-68	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020331	I-I	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020328	I-J	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020329	I-Z	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020330	M-67	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020343	EB-2	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020332	I-V	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020342	M-12A	KERRMCGEE-MP	380839	CR6010	ADE
212147	2708020344	MD-2	KERRMCGEE-MP	380839	CR6010	ADE
212263	2708030226	M-73	KERRMCGEE-MP	380839	CR6010	ADE
212263	2708030225	M-74	KERRMCGEE-MP	380839	CR6010	ADE
212263	2708030224	M-87	KERRMCGEE-MP	380839	CR6010	ADE
212263	2708030227	M-88	KERRMCGEE-MP	380839	CR6010	ADE

Brief Description:(include reason for non-compliance-Root Cause)

Sample 2708020332 was used as 2nd set MS/D pair for this batch of samples. A flag (M3) was added because spike recovery for the MS failed acceptance limits at 20%. All other QCs passed. LCS/D were recovering 93/91%. And the MSD recovered 86 percent. Another spike set 2708020327 recovered 91 and 90%.

Corrective Action Taken/Prevention:

Sample was qualified with an M3 flag and all samples with this batch were reported. Matrix interference suspected.

Impact on Data Quality:

Sample concentration was also high and at the same level as the spike. None as MS/D recoveries do not affect quality.
LIMS user:mce Date/time stamp:24-aug-2007 15:37:37

Data Disposition/Acceptable/Method/Regulations:

Flag sample -0332 with M3 since analyte conc. in sample was 20x of spiked amount. Batch data acceptable based on passing LCSs and 1st MS/MSD.
LIMS user:yyc Date/time stamp:24-aug-2007 17:51:08

Annotation:

M3 - The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.
LIMS user:yyc Date/time stamp:24-aug-2007 17:51:08

Client Contact:

ok to report with M3 flag for impacted sample
LIMS user:ade Date/time stamp:25-aug-2007 08:46:43

Detail Report for QIR group# 213187

Group	Sample#	Sample ID	Customer	QC Ref	Test	Analyst	Analysis Date	Prep	Prep Date	Inst
212147	2708020320	M-50	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020321	M-34	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020322	M-35	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020323	M-19	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020324	M-39	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020325	M-68	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020326	M-61	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020327	I-K	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020328	I-J	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020329	I-2	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020330	M-67	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020331	I-I	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020332	I-V	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020342	M-12A	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020343	EB-2	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212147	2708020344	MD-2	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212263	2708030224	M-87	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212263	2708030225	M-74	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212263	2708030226	M-73	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA
212263	2708030227	M-88	KERRMCGEE-MP	380839	CR6010	wbh	08/13/07 00:00	jrf	08/12/07 00:00	OPTIMA

Batch# 380839 CR6010

Analyte	QC	Actual	Found	Lower	Yield	Upper	Statu
Chromium, Total, ICAP	LCS1	1.00	0.930	85.0	93.0	115.0	OK
Chromium, Total, ICAP	LCS2	1.00	0.911	85.0	91.1	115.0	OK
Chromium, Total, ICAP	MBLK	ND	ND	0.0		0.0	OK
Chromium, Total, ICAP	MRL_CHK	0.010	0.009	50.0	99.4	150.0	OK
Chromium, Total, ICAP	MS	1.00	0.914	70.0	91.4	130.0	OK
Chromium, Total, ICAP	MSD	1.00	0.895	70.0	89.5	130.0	OK

File ID: 070813A CR

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
ICV	8/13/07	19:11	1	9.9636	9.96	95-105	99.6%
LINEARITY	8/13/07	19:14	1	0.0016	.0016		
ICSA	8/13/07	19:18	1	-0.0011	ND	80-120	
ICSAB	8/13/07	19:22	1	.23743	.237	80-120	94.9%
Wash	8/13/07	19:26	1	-0.0001	ND		
QC-25 1ppm	8/13/07	19:32	1	.95734	.960		
CCV	8/13/07	19:37	1	4.9148	4.91	90-110	98.2%
ICB	8/13/07	19:48	1	0.0000	0.0000		
MRL	8/13/07	19:54	1	0.0098	.0098	50-150	97.5%
FILTER_CHECK	8/13/07	19:57	1	-0.0002	ND		
MRL6010	8/13/07	20:01	1	~~-0.0027~~	~~ND~~		
MBLANK	8/13/07	20:05	1	-0.0001	ND		
LCS	8/13/07	20:08	1	.95525	.955	85-115	95.5%
LCSD	8/13/07	20:12	1	.94145	.941	85-115	94.1%
2708020271_2X	8/13/07	20:16	2	.21518	.220		
2708020271_2XMS	8/13/07	20:20	2	1.1761	1.18	[0.961]	~~48.0~~ Q
2708020271_2XMSD	8/13/07	20:24	2	1.1556	1.16	[0.941]	~~47.0~~ Q
2708020271_2XT	8/13/07	20:24	2		2.00	70 - 130	
2708020272_2X	8/13/07	20:28	2	.48722	.490		
2708020272_2XMS	8/13/07	20:32	2	1.4206	1.42	[0.933]	~~46.6~~ Q
CCV	8/13/07	20:36	1	4.8635	4.86	90-110	97.2%
CCB	8/13/07	20:39	1	0.0000	0.0000		
2708020272_2XMSD	8/13/07	20:43	2	1.4252	1.43	[0.938]	46.9 Q
2708020272_2XT	8/13/07	20:43	2		2.00	70 - 130	
2708020256_20X	8/13/07	20:46	20	29.366	29		
2708020257_20X	8/13/07	20:51	20	28.933	29		
2708020258_20X	8/13/07	20:55	20	16.424	16		
2708020259_20X	8/13/07	20:59	20	43.453	43		
2708020260_20X	8/13/07	21:04	20	30.262	30		
2708020261_20X	8/13/07	21:08	20	30.987	31		
2708020262_20X	8/13/07	21:12	20	25.971	26		
2708020263_20X	8/13/07	21:17	20	14.973	15		
2708020264_20X	8/13/07	21:21	20	12.622	13		
CCV	8/13/07	21:25	1	4.7959	4.8	90-110	95.9%
CCB	8/13/07	21:29	1	0.0022	.0022		
MCV	8/13/07	21:32	1	2.3859	2.39	90-110	95.4%
2708020265_10X	8/13/07	21:35	10	11.131	11		
2708020266_10X	8/13/07	21:40	10	9.4001	9.4		
2708020267_5X	8/13/07	21:44	5	4.3750	4.4		
2708020268_2X	8/13/07	21:48	2	1.8711	1.9		
2708020269_2X	8/13/07	21:53	2	.79782	.8		
2708020270_2X	8/13/07	21:57	2	.44294	.440		
2708020317_2X	8/13/07	22:02	2	0.0161	.016		
2708020319_5X	8/13/07	22:06	5	11.356	11		
2708020318_2X	8/13/07	22:11	2	.06087	.061		
MBLANK	8/13/07	22:15	1	0.0007	0.0007		

File ID: 070813A CR

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
CCV	8/13/07	22:19	1	4.7548	4.75	90-110	95.0%
CCB	8/13/07	22:24	1	0.0009	0.0009		
LCS	8/13/07	22:28	1	.93005	.93	85-115	93.0%
LCSD	8/13/07	22:31	1	.91146	.911	85-115	91.1%
2708020327_2X	8/13/07	22:34	2	.96783	.970		
2708020327_2XMS	8/13/07	22:38	2	1.8816	1.88	[0.914] 1.85 Q	
2708020327_2XMSD	8/13/07	22:42	2	1.8625	1.86	[0.895] 1.79 Q	
2708020327_2XT	8/13/07	22:42	2		2.00	70 - 130	
2708020332_20X	8/13/07	22:46	20	21.102	21		
2708020332_20XMS	8/13/07	22:50	20	21.300	21.3	[0.198] 3.99 Q	
2708020332_20XMSD	8/13/07	22:55	20	21.963	22	[0.861] 4.30 Q	
2708020332_20XT	8/13/07	22:55	20		20.00	70 - 130	
2708020320_20X	8/13/07	22:59	20	29.441	29		
2708020321_20X	8/13/07	23:03	20	15.929	16		
CCV	8/13/07	23:08	1	4.7324	4.73	90-110	94.6%
CCB	8/13/07	23:11	1	0.0022	.0022		
MCV	8/13/07	23:16	1	2.3620	2.36	90-110	94.4%
2708020322_10X	8/13/07	23:19	10	9.4485	9.4		
2708020323_2X	8/13/07	23:24	2	.38131	.380		
2708020324_5X	8/13/07	23:28	5	4.5793	4.6		
2708020325_2X	8/13/07	23:32	2	.91385	.910		
2708020326_2X	8/13/07	23:37	2	1.0224	1.0		
2708020328_2X	8/13/07	23:41	2	2.3597	2.4		
2708020329_5X	8/13/07	23:46	5	9.4749	9.5		
2708020330_5X	8/13/07	23:50	5	5.5403	5.5		
2708020331_20X	8/13/07	23:54	20	19.785	20		
2708020342_10X	8/13/07	23:59	10	12.578	13		
CCV	8/14/07	0:05	1	4.7427	4.74	90-110	94.8%
CCB	8/14/07	0:13	1	0.0010	.001		
2708020343_2X	8/14/07	0:17	2	0.0033	.0033		
2708020344_5X	8/14/07	0:20	5	11.969	12		
2708030224_2X	8/14/07	0:25	2	1.8657	1.9		
2708030225_2X	8/14/07	0:29	2	.76172	.760		
2708030226_2X	8/14/07	0:34	2	2.8850	2.9		
2708030227_2X	8/14/07	0:38	2	.87133	.870		
MBLANK	8/14/07	0:43	1	0.0006	0.0005		
LCS	8/14/07	0:46	1	.91435	.914	85-115	91.4%
LCSD	8/14/07	0:50	1	.93482	.935	85-115	93.4%
2708040004_5X	8/14/07	0:54	5	5.0792	5.1		
CCV	8/14/07	1:01	1	4.7245	4.72	90-110	94.4%
CCB	8/14/07	1:10	1	0.0003	0.0002		
MCV	8/14/07	1:15	1	2.3292	2.33	90-110	93.1%
2708040004_5XMS	8/14/07	1:18	5	5.8624	5.86	[0.783] 15.6 Q	
2708040004_5XMSD	8/14/07	1:22	5	5.7952	5.8	[0.716] 14.3 Q	
2708040004_5XT	8/14/07	1:22	5		5.00	70 - 130	
2708040006_20X	8/14/07	1:27	20	29.675	30		
2708040006_20XMS	8/14/07	1:31	20	29.922	29.9	[0.247] 1.23 Q	
2708040006_20XMSD	8/14/07	1:35	20	29.989	30	[0.314] 1.57 Q	
2708040006_20XT	8/14/07	1:35	20		20.00	70 - 130	
2708030228_2X	8/14/07	1:40	2	1.3358	1.3		

File ID: 070813A CR

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
2708030229_2X	8/14/07	1:44	2	.46897	.470		
2708030230_2X	8/14/07	1:49	2	1.7594	1.8		
2708030231_2X	8/14/07	1:53	2	0.0797	.080		
2708030232_2X	8/14/07	1:57	2	.19337	.190		
CCV	8/14/07	2:05	1	4.7200	4.72	90-110	94.4%
CCB	8/14/07	2:11	1	0.0003	0.0003		
2708030233_20X	8/14/07	2:14	20	32.887	33		
2708030234_2X	8/14/07	2:19	2	2.5954	2.6		
2708030235_2X	8/14/07	2:23	2	.96589	.970		
2708030239_5X	8/14/07	2:27	5	0.0419	.042		
2708040001_2X	8/14/07	2:31	2	0.0746	.075		
2708040002_2X	8/14/07	2:36	2	0.0933	.093		
2708040003_5X	8/14/07	2:40	5	7.4532	7.5		
2708040005_5X	8/14/07	2:45	5	4.7907	4.8		
2708040007_20X	8/14/07	2:49	20	25.929	26		
2708040008_20X	8/14/07	2:53	20	22.921	23		
CCV	8/14/07	3:01	1	4.7569	4.76	90-110	95.1%
CCB	8/14/07	3:10	1	0.0008	0.0007		
MCV	8/14/07	3:15	1	2.3193	2.32	90-110	92.7%
2708040009_20X	8/14/07	3:19	20	27.091	27		
2708040010_2X	8/14/07	3:24	2	0.0357	.036		
2708040011_2X	8/14/07	3:28	2	0.0534	.053		
ICSA	8/14/07	3:33	1	-0.0009	ND	80-120	
ICSAB	8/14/07	3:37	1	.22613	.226	80-120	90.4%
Wash	8/14/07	3:41	1	0.0000	0		
QC-25 1ppm	8/14/07	3:47	1	.19770	.2		
ECV	8/14/07	3:52	1	4.6691	4.67	90-110	93.3%
ECB	8/14/07	3:59	1	-0.0003	ND		
MRL	8/14/07	4:05	1	0.0090	.009	50-150	90.4%

GR 21228

ICP SUMMARY SHEET

File ID: 070813A
Date Started: 8/13/07
Analyst ID: WBH

SAMPLE ID

LINEARITY	(19:14)	Wash	(19:26)	FILTER_CHECK	(19:57)
2708020271_2	(20:16)	2708020272_2	(20:28)	2708020256_2	(20:46)
2708020257_2	(20:51)	2708020258_2	(20:55)	2708020259_2	(20:59)
2708020260_2	(21:04)	2708020261_2	(21:08)	2708020262_2	(21:12)
2708020263_2	(21:17)	2708020264_2	(21:21)	2708020265_1	(21:35)
2708020266_1	(21:40)	2708020267_5	(21:44)	2708020268_2	(21:48)
2708020269_2	(21:53)	2708020270_2	(21:57)	2708020317_2	(22:02)
2708020319_5	(22:06)	2708020318_2	(22:11)	2708020327_2	(22:34)
2708020332_2	(22:46)	2708020320_2	(22:59)	2708020321_2	(23:03)
2708020322_1	(23:19)	2708020323_2	(23:24)	2708020324_5	(23:28)
2708020325_2	(23:32)	2708020326_2	(23:37)	2708020328_2	(23:41)
2708020329_5	(23:46)	2708020330_5	(23:50)	2708020331_2	(23:54)
2708020342_1	(23:59)	2708020343_2	(0:17)	2708020344_5	(0:20)
2708030224_2	(0:25)	2708030225_2	(0:29)	2708030226_2	(0:34)
2708030227_2	(0:38)	2708040004_5	(0:54)	2708040006_2	(1:27)
2708030228_2	(1:40)	2708030229_2	(1:44)	2708030230_2	(1:49)
2708030231_2	(1:53)	2708030232_2	(1:57)	2708030233_2	(2:14)
2708030234_2	(2:19)	2708030235_2	(2:23)	2708030239_5	(2:27)
2708040001_2	(2:31)	2708040002_2	(2:36)	2708040003_5	(2:40)
2708040005_5	(2:45)	2708040007_2	(2:49)	2708040008_2	(2:53)
2708040009_2	(3:19)	2708040010_2	(3:24)	2708040011_2	(3:28)
Wash	(3:41)				

Cr6/0

COMMENT: MRL for Cr6/0 ⇒ 0.00994 mg/L.

Analyst: WBH

Approved By: WBH 8/16/07

BATCH NUMBER for 070813A

8/14/07

Test Parameter:

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

Batch ID: 2708020271_2X

2708020271_2X	2708020272_2X	2708020256_20X
2708020257_20X	2708020258_20X	2708020259_20X
2708020260_20X	2708020261_20X	2708020262_20X
2708020263_20X	2708020264_20X	2708020265_10X
2708020266_10X	2708020267_5X	2708020268_2X
2708020269_2X	2708020270_2X	2708020317_2X
2708020319_5X	2708020318_2X	

Batch ID: 2708020327_2X

2708020327_2X	2708020332_20X	2708020320_20X
2708020321_20X	2708020322_10X	2708020323_2X
2708020324_5X	2708020325_2X	2708020326_2X
2708020328_2X	2708020329_5X	2708020330_5X
2708020331_20X	2708020342_10X	2708020343_2X
2708020344_5X	2708030224_2X	2708030225_2X
2708030226_2X	2708030227_2X	

Batch ID: 2708040004_5X

2708040004_5X	2708040006_20X	2708030228_2X
2708030229_2X	2708030230_2X	2708030231_2X
2708030232_2X	2708030233_20X	2708030234_2X
2708030235_2X	2708030239_5X	2708040001_2X
2708040002_2X	2708040003_5X	2708040005_5X
2708040007_20X	2708040008_20X	2708040009_20X
2708040010_2X	2708040011_2X	

Landscape Summary File ID: 070813A Date: 8/13/07 Analyst: WBH Page: 4

Sample ID	Time	CR	CU	FE	K	MG	MN	MO	NA	NI	PB	SB
ICV	19:11	9.96/10	10.1/10	10.0/10	101/100	102/100	10.0/10	%10.00/10	103/100	9.98/10	10.3/10	10.1/10
LINEARITY	19:14	0.002	-.015	101	316	200	0.004	0.002	319/300	0.001	-.007	0.013
ICSA	19:18	-.001	-.016	100/100	0.390	254/250	0.003	0.003	0.186	-.000	-.046	0.010
ICSAB	19:22	0.237/.25	0.233/.25	97.0/100	0.168	244/250	0.250/.25	0.002	0.066	0.449/.5	0.440/.5	0.011
Wash	19:26	-.0001	0.0000	-.0021	0.0007	0.0009	-.0004	-.0002	0.0192	-.0001	0.0010	-.0058
QC-25 1ppm	19:32	0.9573	0.9309	1.014	9.552	1.078	0.9991	0.9150	1.052	1.005	1.032	0.9333
CCV	19:37	4.91/5	4.77/5	5.16/5	49.7/50	52.4/50	5.02/5	4.88/5	51.7/50	5.06/5	5.12/5	4.92/5
ICB	19:48	0.0000	0.0002	0.0001	-.0034	0.0008	-.0004	0.0001	0.0111	0.0000	0.0015	-.0025
MRL	19:54	0.010/.01	0.010/.01	0.021/.02	0.902/1	0.107/.1	N/A	0.019/.02	1.04/1	0.020/.02	0.022/.02	N/A
FILTER_CHECK	19:57	-.0002	-.0001	-.0011	-.0646	0.0001	N/A	-.0003	0.0038	-.0000	0.0018	N/A
MRL6010	20:01	-.003	-.007	-.003	-.029	-.000	N/A	-.001	-.000	-.000	0.007(.02)	N/A
MBLANK	20:05	-.0001	-.0001	0.0016	-.0656	0.0045	N/A	-.0000	0.0247	-.0000	0.0024	N/A
LCS	20:08	0.955/1	0.961/1	5.03/5	19.3/20	20.6/20	N/A	0.953/1	51.0/50	0.498/.5	1.04/1	N/A
LCSD	20:12	0.941/1	0.956/1	5.07/5	19.6/20	20.7/20	N/A	0.933/1	51.1/50	0.487/.5	1.02/1	N/A
2708020271_2X	20:16	0.2152	0.0046	0.0014	35.25	181.5	N/A	0.0275	880.6	-.0015	-.0082	N/A
2708020271_2XMS	20:20	1.176	1.007	5.318	57.15	201.2	N/A	0.9954	924.9	0.4808	1.019	N/A
2708020271_2XMSD	20:24	1.156	0.9911	5.153	56.01	198.6	N/A	0.9852	913.7	0.4742	0.9896	N/A
2708020272_2X	20:28	0.4872	0.0042	0.3238	46.57	214.6	N/A	0.0301	856.1	0.0009	-.0129	N/A
2708020272_2XMS	20:32	1.421	0.9819	5.469	66.09	228.0	N/A	0.9981	882.7	0.4698	0.9949	N/A
CCV	20:36	4.86/5	4.72/5	5.02/5	49.1/50	52.4/50	N/A	4.77/5	51.8/50	4.98/5	5.04/5	N/A
CCB	20:39	0.0000	0.0001	0.0012	0.0133	-.0001	N/A	0.0006	0.1645	-.0001	0.0026	N/A
2708020272_2XMSD	20:43	1.425	0.9781	5.421	66.67	232.0	N/A	0.9777	898.7	0.4606	0.9758	N/A
2708020256_20X	20:46	29.37	0.0149	0.0959	55.77	529.6	N/A	0.0342	%2374.2	-.0032	-.0329	N/A
2708020257_20X	20:51	28.93	0.0132	0.0334	46.83	564.4	N/A	0.0363	%2336.3	-.0040	-.0493	N/A
2708020258_20X	20:55	16.42	0.0091	0.1123	41.79	462.1	N/A	0.0456	%1655.3	-.0034	-.0080	N/A
2708020259_20X	20:59	43.45	0.0523	23.27	53.91	664.0	N/A	0.0253	%2330.0	0.1392	-.0547	N/A
2708020260_20X	21:04	30.26	0.0364	0.9707	54.77	651.7	N/A	0.0373	%2318.1	-.0038	-.0596	N/A
2708020261_20X	21:08	30.99	0.0110	0.0027	45.47	624.0	N/A	0.0392	%2290.3	-.0068	-.0876	N/A
2708020262_20X	21:12	25.97	0.0091	-.0300	36.73	492.3	N/A	0.0311	%2334.0	0.0039	-.0390	N/A
2708020263_20X	21:17	14.97	0.0013	-.0169	47.11	433.5	N/A	0.0260	%1901.8	-.0028	-.0308	N/A
2708020264_20X	21:21	12.62	0.0060	0.3496	35.36	388.5	N/A	0.0269	%1710.5	0.0005	-.0399	N/A
CCV	21:25	4.80/5	4.63/5	5.16/5	50.2/50	53.0/50	N/A	4.75/5	52.0/50	5.00/5	5.03/5	N/A
CCB	21:29	0.0022	-.0001	-.0012	-.0200	-.0000	N/A	0.0008	0.1064	-.0001	0.0019	N/A
MCV	21:32	2.39/2.5	2.28/2.5	2.58/2.5	24.6/25	26.8/25	N/A	2.32/2.5	26.0/25	2.50/2.5	2.51/2.5	N/A
2708020265_10X	21:35	11.13	0.0058	0.0157	43.19	330.3	N/A	0.0289	%1733.6	-.0017	-.0306	N/A
2708020266_10X	21:40	9.400	0.0053	1.122	40.64	295.8	N/A	0.0303	%1853.6	0.0003	0.0038	N/A
2708020267_5X	21:44	4.375	0.0051	0.0080	38.68	224.6	N/A	0.0321	%1597.4	-.0033	-.0220	N/A
2708020268_2X	21:48	1.871	0.0028	0.0024	32.71	164.5	N/A	0.0341	%1292.4	-.0006	-.0099	N/A
2708020269_2X	21:53	0.7978	0.0029	0.0069	39.80	221.9	N/A	0.0272	%1196.9	0.0002	-.0104	N/A
2708020270_2X	21:57	0.4429	0.0032	0.0300	45.51	265.4	N/A	0.0206	%1115.3	-.0004	-.0178	N/A
2708020317_2X	22:02	0.0161	0.0024	0.1847	12.01	84.40	N/A	0.0168	359.6	-.0006	-.0043	N/A
2708020319_5X	22:06	11.36	0.0090	0.1397	23.07	278.3	N/A	0.0162	%1642.2	-.0007	-.0139	N/A
2708020318_2X	22:11	0.0609	0.0059	0.0744	18.58	199.2	N/A	0.0175	636.5	0.0004	-.0028	N/A
MBLANK	22:15	0.0007	-.0003	0.0015	-.0280	0.0019	N/A	-.0004	0.4622	-.0006	0.0020	N/A
CCV	22:19	4.75/5	4.55/5	4.99/5	48.9/50	53.2/50	N/A	4.61/5	51.9/50	4.86/5	4.90/5	N/A
CCB	22:24	0.0009	-.0002	-.0004	-.0450	0.0009	N/A	0.0002	0.1693	-.0003	0.0019	N/A
LCS	22:28	0.930/1	0.917/1	5.08/5	19.4/20	20.8/20	N/A	0.902/1	49.8/50	0.474/.5	0.975/1	N/A
LCSD	22:31	0.911/1	0.904/1	5.04/5	19.4/20	20.8/20	N/A	0.902/1	50.0/50	0.474/.5	0.984/1	N/A
2708020327_2X	22:34	0.9678	0.0022	0.0086	21.47	268.7	N/A	0.0615	912.8	0.0001	-.0147	N/A

Landscape Summary File ID: 070813A Date: 8/13/07 Analyst: WBH

Sample ID	Time	CR	CU	FE	K	MG	MN	MO	NA	NI	PB	SB
2708020327_2XMS	22:38	1.882	0.9429	5.014	42.70	292.7	N/A	0.9687	983.4	0.4596	0.9289	N/A
2708020327_2XMSD	22:42	1.863	0.9330	4.987	42.32	288.6	N/A	0.9594	963.1	0.4556	0.9215	N/A
2708020332_20X	22:46	21.10	-.0003	0.0486	64.93	523.8	N/A	0.0359	%1908.6	-.0008	-.0471	N/A
2708020332_20XMS	22:50	21.30	0.8765	5.050	81.93	519.2	N/A	0.9212	%1874.3	0.4537	0.9266	N/A
2708020332_20XMSD	22:55	21.96	0.9208	5.140	82.61	532.0	N/A	0.9569	%1916.9	0.4689	0.9693	N/A
2708020320_20X	22:59	29.44	-.0017	1.021	35.17	292.8	N/A	0.0423	%2968.5	-.0009	-.0043	N/A
2708020321_20X	23:03	15.93	0.0044	-.0146	43.52	392.1	N/A	0.0385	%1711.6	-.0063	-.0264	N/A
CCV	23:08	4.73/5	4.52/5	5.08/5	49.8/50	53.4/50	N/A	4.62/5	51.5/50	4.87/5	4.90/5	N/A
CCB	23:11	0.0022	-.0001	-.0012	-.0423	-.0000	N/A	0.0008	0.1601	-.0002	0.0011	N/A
MCV	23:16	2.36/2.5	2.24(2.5)	2.64/2.5	25.5/25	27.2/25	N/A	2.29/2.5	25.8/25	2.47/2.5	2.47/2.5	N/A
2708020322_10X	23:19	9.449	0.0041	-.0099	82.14	254.6	N/A	0.0599	%1309.1	-.0010	-.0134	N/A
2708020323_2X	23:24	0.3813	0.0029	0.0302	10.88	157.8	N/A	0.1619	%1123.3	0.0047	-.0124	N/A
2708020324_5X	23:28	4.579	0.0031	0.0612	26.96	440.5	N/A	0.0220	895.4	-.0030	-.0211	N/A
2708020325_2X	23:32	0.9139	0.0037	0.2015	26.30	313.5	N/A	0.0951	%1244.8	0.0016	-.0134	N/A
2708020326_2X	23:37	1.022	0.0019	0.0336	19.26	274.5	N/A	0.0419	843.2	0.0002	-.0154	N/A
2708020328_2X	23:41	2.360	0.0026	-.0126	20.40	333.7	N/A	0.0300	900.9	0.0015	-.0145	N/A
2708020329_5X	23:46	9.475	0.0020	0.0023	38.00	464.0	N/A	0.0264	%1241.8	0.0003	-.0175	N/A
2708020330_5X	23:50	5.540	0.0023	0.0405	26.77	454.3	N/A	0.0234	947.7	-.0012	-.0226	N/A
2708020331_20X	23:54	19.79	-.0021	0.0282	71.66	477.9	N/A	0.0364	%1974.2	0.0026	-.0291	N/A
2708020342_10X	23:59	12.58	0.0063	0.4790	45.70	21.55	N/A	0.0286	%2325.5	-.0024	0.0005	N/A
CCV	0:05	4.74/5	4.53/5	5.09/5	49.5/50	53.9/50	N/A	4.64/5	51.4/50	4.90/5	4.93/5	N/A
CCB	0:13	0.0010	-.0006	-.0003	-.0776	0.0012	N/A	0.0001	0.1676	-.0006	0.0012	N/A
2708020343_2X	0:17	0.0033	-.0001	0.0878	-.0686	0.2255	N/A	0.0004	0.6041	-.0004	0.0057	N/A
2708020344_5X	0:20	11.97	0.0037	0.3767	46.00	20.45	N/A	0.0327	%2254.1	-.0005	-.0026	N/A
2708030224_2X	0:25	1.866	0.0018	0.1374	12.70	101.0	N/A	0.0148	426.0	0.0002	-.0028	N/A
2708030225_2X	0:29	0.7617	0.0024	-.0041	24.21	258.0	N/A	0.1031	%1334.7	0.0009	-.0133	N/A
2708030226_2X	0:34	2.885	0.0019	0.1220	15.67	193.3	N/A	0.0165	471.5	-.0008	-.0101	N/A
2708030227_2X	0:38	0.8713	0.0031	0.0487	25.41	232.5	N/A	0.1180	%1544.2	0.0021	-.0140	N/A
MBLANK	0:43	0.0006	-.0007	0.0021	-.0721	0.0049	N/A	-.0004	0.5792	-.0005	0.0030	N/A
LCS	0:46	0.914/1	0.895/1	5.02/5	19.9/20	21.6/20	N/A	0.885/1	52.0/50	0.468/.5	0.965/1	N/A
LCSD	0:50	0.935/1	0.913/1	5.16/5	19.8/20	21.5/20	N/A	0.911/1	51.4/50	0.482/.5	0.985/1	N/A
2708040004_5X	0:54	5.079	0.0021	0.0148	25.81	271.9	N/A	0.0219	%1151.5	-.0036	-.0199	N/A
CCV	1:01	4.72/5	4.47(5)	5.13/5	50.4/50	54.0/50	N/A	4.59/5	51.8/50	4.86/5	4.87/5	N/A
CCB	1:10	0.0003	-.0006	-.0024	-.0700	0.0014	N/A	0.0002	0.1596	-.0007	0.0019	N/A
MCV	1:15	2.33/2.5	2.18(2.5)	2.58/2.5	25.0/25	27.3/25	N/A	2.24(2.5)	25.9/25	2.44/2.5	2.43/2.5	N/A
2708040004_5XMS	1:18	5.862	0.9216	5.191	46.41	288.0	N/A	0.9297	%1184.2	0.4617	0.9530	N/A
2708040004_5XMSD	1:22	5.795	0.9069	4.997	45.31	283.3	N/A	0.8934	%1156.9	0.4460	0.9158	N/A
2708040006_20X	1:27	29.68	-.0029	-.0096	41.55	508.1	N/A	0.0314	%2459.3	-.0099	-.0232	N/A
2708040006_20XMS	1:31	29.92	0.8867	5.092	58.08	515.6	N/A	0.9242	%2439.7	0.4550	0.9315	N/A
2708040006_20XMSD	1:35	29.99	0.8866	5.158	59.40	522.2	N/A	0.9194	%2475.4	0.4532	0.9137	N/A
2708030228_2X	1:40	1.336	0.0011	0.1122	9.807	85.01	N/A	0.0152	416.8	-.0002	-.0024	N/A
2708030229_2X	1:44	0.4690	0.0033	0.0796	9.126	92.07	N/A	0.0103	536.2	-.0012	-.0062	N/A
2708030230_2X	1:49	1.759	0.0010	0.0315	14.75	157.4	N/A	0.0129	521.1	-.0017	-.0104	N/A
2708030231_2X	1:53	0.0797	0.0004	0.0261	4.837	30.06	N/A	0.0103	158.7	-.0014	-.0019	N/A
2708030232_2X	1:57	0.1934	0.0005	0.0892	6.452	54.89	N/A	0.0107	289.6	-.0003	-.0023	N/A
CCV	2:05	4.72/5	4.46(5)	5.21/5	51.3/50	54.4/50	N/A	4.59/5	52.2/50	4.88/5	4.86/5	N/A
CCB	2:11	0.0003	-.0006	-.0017	-.0095	0.0007	N/A	0.0004	0.1268	-.0005	0.0030	N/A
2708030233_20X	2:14	32.89	-.0003	0.2271	37.08	515.3	N/A	0.0404	%2669.2	-.0097	-.0297	N/A
2708030234_2X	2:19	2.595	0.0007	0.8022	21.15	43.32	N/A	0.0238	986.5	-.0007	-.0009	N/A
2708030235_2X	2:23	0.9659	0.0000	4.864	14.61	128.5	N/A	0.0173	608.3	-.0019	-.0065	N/A

Landscape Summary File ID: 070813A Date: 8/13/07 Analyst: WBH Page: 6

Sample ID	Time	CR	CU	FE	K	MG	MN	MO	NA	NI	PB	SB
2708030239_5X	2:27	0.0419	0.0197	0.1604	159.9	%1147.9	N/A	0.5230	%7911.1	0.0550	-.0366	N/A
2708040001_2X	2:31	0.0746	0.0000	0.0367	5.634	38.81	N/A	0.0083	176.6	-.0014	-.0028	N/A
2708040002_2X	2:36	0.0933	0.0022	0.0685	4.179	28.90	N/A	0.0094	147.8	-.0015	-.0006	N/A
2708040003_5X	2:40	7.453	0.0019	0.0151	29.49	267.3	N/A	0.0188	%1686.5	-.0041	-.0132	N/A
2708040005_5X	2:45	4.791	0.0027	0.1978	36.20	336.1	N/A	0.0281	%1290.5	-.0003	-.0230	N/A
2708040007_20X	2:49	25.93	-.0061	0.0999	41.88	454.4	N/A	0.0228	%2384.1	-.0173	0.0042	N/A
2708040008_20X	2:53	22.92	-.0062	-.0077	38.59	447.0	N/A	0.0278	%2165.5	-.0174	-.0185	N/A
CCV	3:01	4.76/5	4.49(5)	5.18/5	51.2/50	54.9/50	N/A	4.61/5	52.7/50	4.89/5	4.89/5	N/A
CCB	3:10	0.0008	-.0007	-.0007	-.0821	0.0017	N/A	0.0002	0.1332	-.0008	0.0028	N/A
MCV	3:15	2.32/2.5	2.16(2.5)	2.59/2.5	25.5/25	27.6(25)	N/A	2.19(2.5)	26.3/25	2.39/2.5	2.37/2.5	N/A
2708040009_20X	3:19	27.09	-.0024	0.0632	37.67	424.5	N/A	0.0581	%2465.2	-.0154	-.0251	N/A
2708040010_2X	3:24	0.0357	0.0007	0.0552	14.12	138.2	N/A	0.0270	518.1	-.0024	-.0057	N/A
2708040011_2X	3:28	0.0534	0.0016	0.3418	9.994	162.1	N/A	0.0131	637.2	-.0005	-.0063	N/A
ICSA	3:33	-.001	-.015	99.2/100	0.063	257/250	N/A	0.002	0.776	-.001	-.038	N/A
ICSAB	3:37	0.226/.25	0.212/.25	97.2/100	-.011	250/250	N/A	0.002	0.465	0.424/.5	0.408/.5	N/A
Wash	3:41	0.0000	-.0009	-.0005	-.0796	0.0008	N/A	-.0003	0.1691	-.0006	0.0034	N/A
QC-25 1ppm	3:47	0.1977	0.1790	1.022	9.823	1.128	N/A	0.0093	1.284	0.0093	0.0199	N/A
ECV	3:52	4.67/5	4.41(5)	5.24/5	52.0/50	54.4/50	N/A	4.50/5	52.5/50	4.78/5	4.76/5	N/A
ECB	3:59	-.0003	-.0008	0.0006	-.0818	0.0001	N/A	0.0001	0.0989	-.0007	0.0026	N/A
MRL	4:05	0.009/.01	0.008/.01	0.022/.02	0.918/1	0.112/.1	N/A	0.017/.02	1.11/1	0.019/.02	0.022/.02	N/A

Align View XY Axial for analyte Mn 257.610

X-position	Y-position	Intensity
-2.0	15.0	332357.3
-1.6	15.0	451683.8
-1.2	15.0	590002.7
-0.8	15.0	728483.9
-0.4	15.0	819616.4
0.0	15.0	824559.1
0.4	15.0	798705.8
0.8	15.0	673091.0
1.2	15.0	547644.5
1.6	15.0	418050.5
2.0	15.0	292380.9
0.0	10.0	6732.8
0.0	10.5	18151.5
0.0	11.0	29878.4
0.0	11.5	47226.7
0.0	12.0	74779.1
0.0	12.5	178059.6
0.0	13.0	261061.7
0.0	13.5	361162.6
0.0	14.0	500029.9
0.0	14.5	751190.4
0.0	15.0	835082.7
0.0	15.5	722693.9
0.0	16.0	673038.3
0.0	16.5	485847.3
0.0	17.0	392956.9
0.0	17.5	286593.9
0.0	18.0	218974.3
0.0	18.5	142388.0
0.0	19.0	39918.9
0.0	19.5	18136.3
0.0	20.0	7888.2
-0.8	15.0	653111.3
-0.4	15.0	716739.4
0.0	15.0	752703.9
0.4	15.0	714987.1
0.8	15.0	576721.1
0.0	13.0	234818.2
0.0	13.5	307689.7
0.0	14.0	421459.9
0.0	14.5	634824.2
0.0	15.0	728686.1
0.0	15.5	765318.3
0.0	16.0	736690.8
0.0	16.5	540067.9
0.0	17.0	383443.8

8/13/2007 18:40:13 aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 765318.3 for Axial viewing
Y viewing position set to 15.5 mm having Peak intensity 765318.3 for Axial viewing

Align View XY Axial for analyte Mn 257.610

X-position	Y-position	Intensity
-2.0	15.0	293532.1
-1.6	15.0	417556.5
-1.2	15.0	529811.3
-0.8	15.0	650837.5
-0.4	15.0	705012.0
0.0	15.0	707703.6
0.4	15.0	682449.0
0.8	15.0	625134.4
1.2	15.0	517619.3
1.6	15.0	364622.4
2.0	15.0	274474.2
0.0	10.0	10554.2
0.0	10.5	26957.0
0.0	11.0	42349.4

0.0	11.5	67942.2
0.0	12.0	104486.9
0.0	12.5	226689.9
0.0	13.0	326313.0
0.0	13.5	418632.3
0.0	14.0	528396.5
0.0	14.5	774576.1
0.0	15.0	801894.0
0.0	15.5	706087.9
0.0	16.0	598171.6
0.0	16.5	386445.2
0.0	17.0	274874.4
0.0	17.5	203521.8
0.0	18.0	140139.2
0.0	18.5	86589.8
0.0	19.0	20005.3
0.0	19.5	8099.9
0.0	20.0	4760.8
-0.8	15.0	651506.6
-0.4	15.0	706677.0
0.0	15.0	711301.0
0.4	15.0	672293.4
0.8	15.0	593429.9
0.0	13.0	334592.3
0.0	13.5	446893.8
0.0	14.0	559667.7
0.0	14.5	715242.3
0.0	15.0	712820.0
0.0	15.5	667149.5
0.0	16.0	574737.2
0.0	16.5	375408.5
0.0	17.0	274975.0

8/13/2007 18:44:41 aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 715242.3 for Axial viewing
Y viewing position set to 14.5 mm having Peak intensity 715242.3 for Axial viewing

Align View X Radial for analyte Mn 257.610

X-position	Y-position	Intensity
-7.0	15.0	1539.0
-6.5	15.0	2213.8
-6.0	15.0	2410.0
-5.5	15.0	2340.5
-5.0	15.0	2582.2
-4.5	15.0	3238.3
-4.0	15.0	4382.8
-3.5	15.0	6740.8
-3.0	15.0	10708.7
-2.5	15.0	17121.8
-2.0	15.0	25927.1
-1.5	15.0	40334.1
-1.0	15.0	52578.2
-0.5	15.0	57293.1
0.0	15.0	59108.2
0.5	15.0	51597.8
1.0	15.0	43508.2
1.5	15.0	35699.5
2.0	15.0	27052.6
2.5	15.0	17211.3
3.0	15.0	7497.2
3.5	15.0	6693.7
4.0	15.0	6535.8
4.5	15.0	7315.8
5.0	15.0	8057.8
5.5	15.0	8587.8
6.0	15.0	8530.0
6.5	15.0	8238.8
7.0	15.0	8443.3

8/13/2007 18:51:29 aligned for analyte Mn 257.610

X viewing position set to 0.0 mm having Peak intensity 59108.2 for Radial viewing

Align View XY Axial for analyte Mn 257.610

X-position	Y-position	Intensity
-2.0	15.0	3197782.7
-1.6	15.0	4317417.3
-1.2	15.0	5586326.8
-0.8	15.0	6879567.3
-0.4	15.0	7624401.8
0.0	15.0	7918817.4
0.4	15.0	7493374.5
0.8	15.0	6419580.0
1.2	15.0	5138303.2
1.6	15.0	3876028.4
2.0	15.0	2816586.5
0.0	10.0	66505.8
0.0	10.5	181297.8
0.0	11.0	301322.5
0.0	11.5	471895.6
0.0	12.0	730635.0
0.0	12.5	1724967.8
0.0	13.0	2496290.9
0.0	13.5	3505596.3
0.0	14.0	4668120.5
0.0	14.5	7089557.8
0.0	15.0	7823237.9
0.0	15.5	7946207.4
0.0	16.0	7353615.8
0.0	16.5	5387275.0
0.0	17.0	4147348.1
0.0	17.5	3072424.6
0.0	18.0	2266946.0
0.0	18.5	1570025.6
0.0	19.0	447044.5
0.0	19.5	206279.5
0.0	20.0	89779.0
-0.8	15.5	7005183.8
-0.4	15.5	7822659.9
0.0	15.5	7976004.6
0.4	15.5	7440038.1
0.8	15.5	6423200.3
0.0	13.5	3584564.4
0.0	14.0	4624549.7
0.0	14.5	7052902.8
0.0	15.0	7851864.8
0.0	15.5	8029735.5
0.0	16.0	7415696.2
0.0	16.5	5395373.1
0.0	17.0	4136708.2
0.0	17.5	3082816.3

8/13/2007 18:56:18 aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 8029735.5 for Axial viewing
Y viewing position set to 15.5 mm having Peak intensity 8029735.5 for Axial viewing

Align View XY Axial for analyte Mn 257.610

X-position	Y-position	Intensity
-2.0	15.0	3193376.7
-1.6	15.0	4428470.5
-1.2	15.0	5788529.9
-0.8	15.0	6953547.5
-0.4	15.0	7813627.4
0.0	15.0	8046489.0
0.4	15.0	7520803.7
0.8	15.0	6548788.2
1.2	15.0	5215173.2
1.6	15.0	3954236.4
2.0	15.0	2815685.7
0.0	10.0	116003.2

0.0	10.5	301304.7
0.0	11.0	479423.0
0.0	11.5	734465.9
0.0	12.0	1141443.6
0.0	12.5	2418607.2
0.0	13.0	3470996.7
0.0	13.5	4658538.2
0.0	14.0	5947844.0
0.0	14.5	7925697.2
0.0	15.0	8061167.4
0.0	15.5	7441636.8
0.0	16.0	6515235.5
0.0	16.5	4262231.9
0.0	17.0	3097559.4
0.0	17.5	2259432.1
0.0	18.0	1543982.2
0.0	18.5	948160.4
0.0	19.0	206470.5
0.0	19.5	89587.9
0.0	20.0	50978.6
-0.8	15.0	6994896.6
-0.4	15.0	7785201.3
0.0	15.0	7967603.9
0.4	15.0	7316751.6
0.8	15.0	6480574.0
0.0	13.0	3605385.9
0.0	13.5	4639525.4
0.0	14.0	5989381.2
0.0	14.5	7825247.4
0.0	15.0	8027273.0
0.0	15.5	7505222.5
0.0	16.0	6619169.0
0.0	16.5	4220384.9
0.0	17.0	3097707.7

8/13/2007 18:59:41 aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 8027273.0 for Axial viewing
Y viewing position set to 15.0 mm having Peak intensity 8027273.0 for Axial viewing

Analysis Begun

Start Time: 8/13/2007 19:04:27
Logged In Analyst: Owner
Spectrometer Model: Optima 4300 DV, S/N 069N-na
Plasma On Time: 8/13/2007 17:30:51
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Owner\Sample Information\070810A.sif
Batch ID: 070810a
Results Data Set: 070813A
Results Library: C:\pe\Owner\Results\Results.mdb

Method Loaded
Method Name: 200.7&6010_070703
IEC File: 070703.iec
Method Description: 200.7/6010_070703
Method Last Saved: 7/16/2007 14:45:32
MSF File:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Al	Lin, Calc Int	Peak Area	Radial	Yr	Yes
As	Lin, Calc Int	Peak Area	Axial	Sca	Yes
B_	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Ba	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Be	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Ca	Lin, Calc Int	Peak Area	Radial	Yr	Yes
Cd	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Co	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Cr	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Cu	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Fe	Lin, Calc Int	Peak Area	Radial	Yr	Yes
K	Lin, Calc Int	Peak Area	Radial	Yr	Yes
Mg	Lin, Calc Int	Peak Area	Radial	Yr	Yes
Mn	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Mo	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Na	Lin, Calc Int	Peak Area	Radial	Yr	Yes
Ni	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Pb	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Sb	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Se	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Tl	Lin, Calc Int	Peak Area	Axial	Sca	Yes
V	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Zn	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Sca	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Yr	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Alx	Lin, Calc Int	Peak Area	Axial	Sca	No
Bex	Lin, Calc Int	Peak Area	Axial	Sca	No

Sequence No.: 1
Sample ID: Calib Blank 1
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 0
Date Collected: 8/13/2007 19:04:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	222.0 kPa	0.65 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sca	257893.2	12337.30	4.78%	100	%
Yr	260710.7	5575.44	2.14%	100	%
Ag†	1744.5	38.49	2.21%	[0.00]	mg/L
Al†	40.8	48.60	119.20%	[0.00]	mg/L
As†	7.8	1.13	14.57%	[0.00]	mg/L
B_†	278.6	9.67	3.47%	[0.00]	mg/L

Bat	-16.1	14.44	89.76%	[0.00]	mg/L
Bet	-4031.5	125.52	3.11%	[0.00]	mg/L
Cat	984.5	13.28	1.35%	[0.00]	mg/L
Cdt	77.1	0.24	0.31%	[0.00]	mg/L
Cot	-16.7	3.39	20.30%	[0.00]	mg/L
Crt	309.9	18.43	5.95%	[0.00]	mg/L
Cut	4495.3	175.79	3.91%	[0.00]	mg/L
Fet	-14.0	0.31	2.24%	[0.00]	mg/L
Kt	394.4	44.26	11.22%	[0.00]	mg/L
Mgt	-85.7	7.57	8.84%	[0.00]	mg/L
Mnt	516.7	33.44	6.47%	[0.00]	mg/L
Mot	37.2	3.57	9.58%	[0.00]	mg/L
Nat	-646.0	37.88	5.86%	[0.00]	mg/L
Nit	35.0	2.80	7.99%	[0.00]	mg/L
Pbt	-69.0	3.84	5.57%	[0.00]	mg/L
Sbt	-7.1	2.04	28.90%	[0.00]	mg/L
Set	-0.5	5.77	>999.9%	[0.00]	mg/L
Tlt	-17.5	1.58	8.98%	[0.00]	mg/L
Vt	181.5	27.81	15.32%	[0.00]	mg/L
Znt	305.0	10.59	3.47%	[0.00]	mg/L
Alxt	250.5	89.69	35.81%	[0.00]	ug/L
Bext	-4031.5	125.52	3.11%	[0.00]	ug/L

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

Autosampler Location: 15
Date Collected: 8/13/2007 19:08:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Standard 2

Analyte	Back Pressure	Flow
All	222.0 kPa	0.65 L/min

Mean Data: Standard 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sca	231067.5	99.99	0.04%	89.6	%
Yr	243482.8	3761.52	1.54%	93.4	%
Agt	409447.5	6284.42	1.53%	[2]	mg/L
Alt	49105.5	196.34	0.40%	[10]	mg/L
Ast	16923.6	44.14	0.26%	[10]	mg/L
B_t	132246.2	524.62	0.40%	[5.02]	mg/L
Bat	817449.6	1875.07	0.23%	[10]	mg/L
Bet	13149539.2	95187.34	0.72%	[4.01]	mg/L
Cat	984805.2	29780.44	3.02%	[100]	mg/L
Cdt	117119.9	202.10	0.17%	[5.01]	mg/L
Cot	226700.2	8.37	0.00%	[10]	mg/L
Crt	699939.4	1445.81	0.21%	[9.97]	mg/L
Cut	4273001.8	8126.61	0.19%	[10]	mg/L
Fet	18232.5	58.14	0.32%	[9.98]	mg/L
Kt	132506.9	1064.88	0.80%	[100]	mg/L
Mgt	406259.8	11731.95	2.89%	[100]	mg/L
Mnt	5440923.1	6864.14	0.13%	[10]	mg/L
Mot	148872.2	299.46	0.20%	[9.98]	mg/L
Nat	336530.3	10049.57	2.99%	[100]	mg/L
Nit	217835.0	151.39	0.07%	[10]	mg/L
Pbt	53504.6	72.43	0.14%	[10]	mg/L
Sbt	15895.2	18.67	0.12%	[10]	mg/L
Set	15046.7	68.70	0.46%	[10]	mg/L
Tlt	29791.4	0.56	0.00%	[10]	mg/L
Vt	1624476.5	4771.19	0.29%	[10]	mg/L
Znt	507510.8	157.30	0.03%	[10]	mg/L
Alxt	1013089.6	2787.77	0.28%	[10000]	ug/L
Bext	13149539.2	95187.34	0.72%	[4010]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag	1	Lin, Calc Int	0.0	204700	0.00000	1.000000	
Al	1	Lin, Calc Int	0.0	4911	0.00000	1.000000	
As	1	Lin, Calc Int	0.0	1692	0.00000	1.000000	
B_	1	Lin, Calc Int	0.0	26340	0.00000	1.000000	
Ba	1	Lin, Calc Int	0.0	81740	0.00000	1.000000	
Be	1	Lin, Calc Int	0.0	3279000	0.00000	1.000000	
Ca	1	Lin, Calc Int	0.0	9848	0.00000	1.000000	
Cd	1	Lin, Calc Int	0.0	23380	0.00000	1.000000	
Co	1	Lin, Calc Int	-0.0	22670	0.00000	1.000000	
Cr	1	Lin, Calc Int	0.0	70200	0.00000	1.000000	
Cu	1	Lin, Calc Int	0.0	427300	0.00000	1.000000	
Fe	1	Lin, Calc Int	0.0	1827	0.00000	1.000000	
K	1	Lin, Calc Int	0.0	1325	0.00000	1.000000	
Mg	1	Lin, Calc Int	-0.0	4063	0.00000	1.000000	
Mn	1	Lin, Calc Int	0.0	544100	0.00000	1.000000	
Mo	1	Lin, Calc Int	0.0	14920	0.00000	1.000000	
Na	1	Lin, Calc Int	0.0	3365	0.00000	1.000000	
Ni	1	Lin, Calc Int	0.0	21780	0.00000	1.000000	
Pb	1	Lin, Calc Int	0.0	5350	0.00000	1.000000	
Sb	1	Lin, Calc Int	0.0	1590	0.00000	1.000000	
Se	1	Lin, Calc Int	0.0	1505	0.00000	1.000000	

Tl	1	Lin, Calc Int	0.0	2979	0.00000	1.000000
V	1	Lin, Calc Int	0.0	162400	0.00000	1.000000
Zn	1	Lin, Calc Int	0.0	50750	0.00000	1.000000
Alx	1	Lin, Calc Int	0.0	101.3	0.00000	1.000000
Bex	1	Lin, Calc Int	0.0	3279	0.00000	1.000000

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

Autosampler Location: 15
Date Collected: 8/13/2007 19:11:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	222.0 kPa	0.65 L/min

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	228374.9	88.6	%	0.28				0.32%
Yr	241092.5	92.5	%	0.07				0.08%
Agt	407698.1	1.99	mg/L	0.001	1.99	mg/L	0.001	0.06%
QC value within limits for Ag	Recovery = 99.57%							
Alt	49285.9	10.0	mg/L	0.01	10.0	mg/L	0.01	0.05%
QC value within limits for Al	Recovery = 100.37%							
Ast	17365.2	10.3	mg/L	0.13	10.3	mg/L	0.13	1.23%
QC value within limits for As	Recovery = 102.60%							
B_t	132572.1	5.01	mg/L	0.015	5.01	mg/L	0.015	0.30%
QC value within limits for B_	Recovery = 100.24%							
Bat	820711.8	10.0	mg/L	0.01	10.0	mg/L	0.01	0.11%
QC value within limits for Ba	Recovery = 100.40%							
Bet	13240658.7	4.04	mg/L	0.022	4.04	mg/L	0.022	0.54%
QC value within limits for Be	Recovery = 100.94%							
Cat	1009464.8	103	mg/L	1.4	103	mg/L	1.4	1.34%
QC value within limits for Ca	Recovery = 102.50%							
Cdt	117297.7	4.88	mg/L	0.004	4.88	mg/L	0.004	0.08%
QC value within limits for Cd	Recovery = 97.56%							
Cot	227186.4	10.0	mg/L	0.02	10.0	mg/L	0.02	0.16%
QC value within limits for Co	Recovery = 100.21%							
Crt	699490.9	9.96	mg/L	0.000	9.96	mg/L	0.000	0.00%
QC value within limits for Cr	Recovery = 99.64%							
Cut	4297256.6	10.1	mg/L	0.01	10.1	mg/L	0.01	0.12%
QC value within limits for Cu	Recovery = 100.66%							
Fet	18349.9	10.0	mg/L	0.02	10.0	mg/L	0.02	0.16%
QC value within limits for Fe	Recovery = 100.44%							
Kt	133349.9	101	mg/L	0.1	101	mg/L	0.1	0.11%
QC value within limits for K	Recovery = 100.64%							
Mgt	415285.6	102	mg/L	1.5	102	mg/L	1.5	1.46%
QC value within limits for Mg	Recovery = 102.22%							
Mnt	5456247.2	10.0	mg/L	0.01	10.0	mg/L	0.01	0.13%
QC value within limits for Mn	Recovery = 100.28%							
Mot	149132.8	10.00	mg/L	0.003	10.00	mg/L	0.003	0.03%
QC value within limits for Mo	Recovery = 99.97%							
Nat	345105.0	103	mg/L	0.9	103	mg/L	0.9	0.88%
QC value within limits for Na	Recovery = 102.55%							
Nit	217503.1	9.98	mg/L	0.009	9.98	mg/L	0.009	0.10%
QC value within limits for Ni	Recovery = 99.85%							
Pbt	54921.7	10.3	mg/L	0.14	10.3	mg/L	0.14	1.37%
QC value within limits for Pb	Recovery = 102.65%							
Sbt	16286.6	10.1	mg/L	0.18	10.1	mg/L	0.18	1.81%
QC value within limits for Sb	Recovery = 100.88%							
Set	15467.7	10.3	mg/L	0.23	10.3	mg/L	0.23	2.25%
QC value within limits for Se	Recovery = 102.99%							
Tlt	30641.3	10.3	mg/L	0.17	10.3	mg/L	0.17	1.68%
QC value within limits for Tl	Recovery = 103.14%							
Vt	1626031.4	10.1	mg/L	0.00	10.1	mg/L	0.00	0.03%
QC value within limits for V	Recovery = 100.65%							
Znt	507148.6	9.92	mg/L	0.001	9.92	mg/L	0.001	0.01%
QC value within limits for Zn	Recovery = 99.25%							
Alxt	1019710.5	10100	ug/L	5.0	10.1	mg/L	0.00	0.05%
QC value within limits for Alx	Recovery = 100.65%							
Bext	13240658.7	4040	ug/L	22.0	4.04	mg/L	0.022	0.54%
QC value within limits for Bex	Recovery = 100.94%							

All analyte(s) passed QC.

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

Autosampler Location: 9
Date Collected: 8/13/2007 19:14:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LINEARITY

Analyte	Back Pressure	Flow
All	222.0 kPa	0.65 L/min

Mean Data: LINEARITY

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	227167.5	88.1	%	0.97				1.10%
Yr	230492.4	88.4	%	1.03				1.16%
Agt	-3410.4	-0.0167	mg/L	0.00096	-0.0167	mg/L	0.00096	5.74%
QC value within limits for Ag	Recovery = Not calculated							
Alt	-16.5	-0.00336	mg/L	0.011174	-0.00336	mg/L	0.011174	332.80%
QC value within limits for Al	Recovery = Not calculated							
Ast	-73.6	0.0175	mg/L	0.00174	0.0175	mg/L	0.00174	9.93%
QC value within limits for As	Recovery = Not calculated							
B_t	583.3	0.0221	mg/L	0.00313	0.0221	mg/L	0.00313	14.13%
QC value within limits for B_	Recovery = Not calculated							
Bat	91.1	0.00111	mg/L	0.000073	0.00111	mg/L	0.000073	6.54%
QC value within limits for Ba	Recovery = Not calculated							
Bet	-612.3	-0.00019	mg/L	0.000010	-0.00019	mg/L	0.000010	5.24%
QC value within limits for Be	Recovery = Not calculated							
Cat	3036801.5	308	mg/L	2.6	308	mg/L	2.6	0.83%
QC value within limits for Ca	Recovery = 102.79%							
Cdt	-30.7	-0.00054	mg/L	0.000191	-0.00054	mg/L	0.000191	35.11%
QC value within limits for Cd	Recovery = Not calculated							
Cot	64.3	0.00283	mg/L	0.000149	0.00283	mg/L	0.000149	5.26%
QC value within limits for Co	Recovery = Not calculated							
Crt	115.5	0.00165	mg/L	0.000024	0.00165	mg/L	0.000024	1.45%
QC value within limits for Cr	Recovery = Not calculated							
Cut	-6613.5	-0.0155	mg/L	0.00061	-0.0155	mg/L	0.00061	3.91%
QC value within limits for Cu	Recovery = Not calculated							
Fet	184559.1	101	mg/L	0.2	101	mg/L	0.2	0.20%
QC value within limits for Fe	Recovery = 101.02%							
Kt	419175.5	316	mg/L	3.1	316	mg/L	3.1	0.98%
QC value within limits for K	Recovery = 105.45%							
Mgt	813310.4	200	mg/L	1.9	200	mg/L	1.9	0.96%
QC value within limits for Mg	Recovery = Not calculated							
Mnt	2099.8	0.00386	mg/L	0.000039	0.00386	mg/L	0.000039	1.01%
QC value within limits for Mn	Recovery = Not calculated							
Mot	27.2	0.00182	mg/L	0.000531	0.00182	mg/L	0.000531	29.15%
QC value within limits for Mo	Recovery = Not calculated							
Nat	1072522.5	319	mg/L	3.8	319	mg/L	3.8	1.20%
QC value within limits for Na	Recovery = 106.23%							
Nit	22.3	0.00102	mg/L	0.000371	0.00102	mg/L	0.000371	36.24%
QC value within limits for Ni	Recovery = Not calculated							
Pbt	-36.6	-0.00684	mg/L	0.002190	-0.00684	mg/L	0.002190	32.04%
QC value within limits for Pb	Recovery = Not calculated							
Sbt	20.8	0.0130	mg/L	0.00088	0.0130	mg/L	0.00088	6.76%
QC value within limits for Sb	Recovery = Not calculated							
Set	-497.9	-0.134	mg/L	0.0045	-0.134	mg/L	0.0045	3.35%
QC value within limits for Se	Recovery = Not calculated							
Tlt	84.6	0.0284	mg/L	0.00096	0.0284	mg/L	0.00096	3.40%
QC value within limits for Tl	Recovery = Not calculated							
Vt	-2517.4	-0.0155	mg/L	0.00022	-0.0155	mg/L	0.00022	1.42%
QC value within limits for V	Recovery = Not calculated							
Znt	1470.7	0.0290	mg/L	0.00007	0.0290	mg/L	0.00007	0.25%
QC value within limits for Zn	Recovery = Not calculated							
Alxt	618.4	6.10	ug/L	0.386	0.00610	mg/L	0.000386	6.32%
QC value within limits for Alx	Recovery = Not calculated							
Bext	-612.3	-0.187	ug/L	0.0098	-0.00019	mg/L	0.000010	5.24%
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: 8/13/2007 19:18:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	221.0 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
3ca	236329.4	91.6	%	0.31				0.34%
Yr	236675.6	90.8	%	0.08				0.09%
Agt	-3410.9	-0.0167	mg/L	0.00011	-0.0167	mg/L	0.00011	0.67%
QC value within limits for Ag	Recovery = Not calculated							
Alt	1237178.3	252	mg/L	3.8	252	mg/L	3.8	1.51%
QC value within limits for Al	Recovery = 100.78%							
Ast	-328.9	-0.134	mg/L	0.0005	-0.134	mg/L	0.0005	0.36%
QC value within limits for As	Recovery = Not calculated							
B_t	1787.7	0.0679	mg/L	0.00061	0.0679	mg/L	0.00061	0.90%
QC value within limits for B_	Recovery = Not calculated							
Bat	115.7	0.00142	mg/L	0.000098	0.00142	mg/L	0.000098	6.95%
QC value within limits for Ba	Recovery = Not calculated							
Bet	-827.2	-0.00025	mg/L	0.000018	-0.00025	mg/L	0.000018	7.28%
QC value within limits for Be	Recovery = Not calculated							
Cat	2574452.5	261	mg/L	4.7	261	mg/L	4.7	1.82%
QC value within limits for Ca	Recovery = 104.57%							
Cdt	-47.3	0.00137	mg/L	0.000003	0.00137	mg/L	0.000003	0.22%
QC value within limits for Cd	Recovery = Not calculated							
Cot	38.2	0.00168	mg/L	0.000215	0.00168	mg/L	0.000215	12.74%
QC value within limits for Co	Recovery = Not calculated							
Crt	-74.5	-0.00106	mg/L	0.000174	-0.00106	mg/L	0.000174	16.34%
QC value within limits for Cr	Recovery = Not calculated							
Cut	-6980.4	-0.0163	mg/L	0.00020	-0.0163	mg/L	0.00020	1.24%
QC value within limits for Cu	Recovery = Not calculated							
Fet	183184.4	100	mg/L	0.4	100	mg/L	0.4	0.36%
QC value within limits for Fe	Recovery = 100.27%							
Kt	516.4	0.390	mg/L	0.0422	0.390	mg/L	0.0422	10.84%
QC value within limits for K	Recovery = Not calculated							
Mgt	1032069.2	254	mg/L	3.9	254	mg/L	3.9	1.54%
QC value within limits for Mg	Recovery = 101.62%							
Mnt	1695.4	0.00312	mg/L	0.000007	0.00312	mg/L	0.000007	0.23%
QC value within limits for Mn	Recovery = Not calculated							
Mot	40.4	0.00271	mg/L	0.000382	0.00271	mg/L	0.000382	14.10%
QC value within limits for Mo	Recovery = Not calculated							
Nat	624.6	0.186	mg/L	0.0102	0.186	mg/L	0.0102	5.48%
QC value within limits for Na	Recovery = Not calculated							
Nit	-3.1	-0.00014	mg/L	0.000068	-0.00014	mg/L	0.000068	48.28%
QC value within limits for Ni	Recovery = Not calculated							
Pbt	-248.7	-0.0465	mg/L	0.00144	-0.0465	mg/L	0.00144	3.09%
QC value within limits for Pb	Recovery = Not calculated							
Sbt	16.2	0.0101	mg/L	0.00368	0.0101	mg/L	0.00368	36.24%
QC value within limits for Sb	Recovery = Not calculated							
Set	-511.9	-0.145	mg/L	0.0008	-0.145	mg/L	0.0008	0.56%
QC value within limits for Se	Recovery = Not calculated							
Tlt	54.5	0.0182	mg/L	0.00220	0.0182	mg/L	0.00220	12.05%
QC value within limits for Tl	Recovery = Not calculated							
Vt	-2564.3	-0.0158	mg/L	0.00007	-0.0158	mg/L	0.00007	0.42%
QC value within limits for V	Recovery = Not calculated							
Znt	1228.6	0.0242	mg/L	0.00017	0.0242	mg/L	0.00017	0.72%
QC value within limits for Zn	Recovery = Not calculated							
Alxt	Saturated2							
Unable to evaluate QC.								
Bext	-827.2	-0.252	ug/L	0.0184	-0.00025	mg/L	0.000018	7.28%
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: 8/13/2007 19:22:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	221.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	235764.7	91.4	%	2.10				2.29%
Yr	237098.5	90.9	%	0.18				0.20%
Agt	49978.7	0.244	mg/L	0.0012	0.244	mg/L	0.0012	0.49%
QC value less than the lower limit for Ag Recovery = 48.83%								
Alt	1187694.1	242	mg/L	1.6	242	mg/L	1.6	0.68%
QC value within limits for Al Recovery = 96.75%								
Ast	-329.1	-0.136	mg/L	0.0003	-0.136	mg/L	0.0003	0.21%
QC value less than the lower limit for As Recovery = Not calculated								
B_t	1716.5	0.0647	mg/L	0.00018	0.0647	mg/L	0.00018	0.27%
QC value greater than the upper limit for B_ Recovery = Not calculated								
Bat	20201.5	0.247	mg/L	0.0056	0.247	mg/L	0.0056	2.28%
QC value within limits for Ba Recovery = 98.85%								
Bet	794977.3	0.242	mg/L	0.0020	0.242	mg/L	0.0020	0.82%
QC value within limits for Be Recovery = 96.97%								
Cat	2463750.4	250	mg/L	1.4	250	mg/L	1.4	0.56%
QC value within limits for Ca Recovery = 100.07%								
Cdt	10681.1	0.461	mg/L	0.0119	0.461	mg/L	0.0119	2.58%
QC value within limits for Cd Recovery = 92.24%								
Cot	5258.1	0.232	mg/L	0.0059	0.232	mg/L	0.0059	2.54%
QC value within limits for Co Recovery = 92.78%								
Crt	16669.0	0.237	mg/L	0.0063	0.237	mg/L	0.0063	2.66%
QC value within limits for Cr Recovery = 94.97%								
Cut	99324.4	0.233	mg/L	0.0021	0.233	mg/L	0.0021	0.91%
QC value within limits for Cu Recovery = 93.07%								
Fet	177217.5	97.0	mg/L	0.27	97.0	mg/L	0.27	0.27%
QC value within limits for Fe Recovery = 97.00%								
Kt	223.2	0.168	mg/L	0.0340	0.168	mg/L	0.0340	20.20%
QC value within limits for K Recovery = Not calculated								
Mgt	991205.4	244	mg/L	2.0	244	mg/L	2.0	0.84%
QC value within limits for Mg Recovery = 97.59%								
Mnt	135800.4	0.250	mg/L	0.0015	0.250	mg/L	0.0015	0.59%
QC value within limits for Mn Recovery = 99.84%								
Mot	35.3	0.00237	mg/L	0.000744	0.00237	mg/L	0.000744	31.44%
QC value within limits for Mo Recovery = Not calculated								
Nat	223.6	0.0664	mg/L	0.01899	0.0664	mg/L	0.01899	28.59%
QC value within limits for Na Recovery = Not calculated								
Nit	9789.0	0.449	mg/L	0.0116	0.449	mg/L	0.0116	2.59%
QC value within limits for Ni Recovery = 89.88%								
Pbt	2354.6	0.440	mg/L	0.0114	0.440	mg/L	0.0114	2.59%
QC value within limits for Pb Recovery = 88.01%								
Sbt	23.6	0.0110	mg/L	0.00329	0.0110	mg/L	0.00329	29.96%
QC value within limits for Sb Recovery = Not calculated								
Set	-483.0	-0.132	mg/L	0.0054	-0.132	mg/L	0.0054	4.06%
QC value less than the lower limit for Se Recovery = Not calculated								
Tlt	48.5	0.0169	mg/L	0.00014	0.0169	mg/L	0.00014	0.86%
QC value within limits for Tl Recovery = Not calculated								
Vt	36429.1	0.226	mg/L	0.0014	0.226	mg/L	0.0014	0.61%
QC value within limits for V Recovery = 90.22%								
Znt	26890.9	0.527	mg/L	0.0127	0.527	mg/L	0.0127	2.42%
QC value within limits for Zn Recovery = 105.36%								
Alxt	Saturated2							
Unable to evaluate QC.								
Bext	794977.3	242	ug/L	2.0	0.242	mg/L	0.0020	0.82%
QC value within limits for Bex Recovery = 96.97%								

QC Failed. Continue with analysis.

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

Autosampler Location: 0
Date Collected: 8/13/2007 19:26:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Wash

Analyte	Back Pressure	Flow
All	221.0 kPa	0.65 L/min

Mean Data: Wash

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	262878.5	102	%	1.3				1.30%
Yr	251579.1	96.5	%	0.05				0.05%
Agt	330.7	0.00162	mg/L	0.000251	0.00162	mg/L	0.000251	15.52%
QC value within limits for Ag	Recovery = Not calculated							
Alt	-55.8	-0.0114	mg/L	0.00507	-0.0114	mg/L	0.00507	44.58%
QC value within limits for Al	Recovery = Not calculated							
Ast	-0.0	-0.00001	mg/L	0.003058	-0.00001	mg/L	0.003058	>999.9%
QC value within limits for As	Recovery = Not calculated							
B_t	76.0	0.00288	mg/L	0.000073	0.00288	mg/L	0.000073	2.54%
QC value within limits for B_	Recovery = Not calculated							
Bat	-1.9	-0.00002	mg/L	0.000026	-0.00002	mg/L	0.000026	113.33%
QC value within limits for Ba	Recovery = Not calculated							
Bet	159.9	0.00005	mg/L	0.000008	0.00005	mg/L	0.000008	15.90%
QC value within limits for Be	Recovery = Not calculated							
Cat	34.9	0.00355	mg/L	0.000294	0.00355	mg/L	0.000294	8.29%
QC value within limits for Ca	Recovery = Not calculated							
Cdt	2.8	0.00012	mg/L	0.000062	0.00012	mg/L	0.000062	51.29%
QC value within limits for Cd	Recovery = Not calculated							
Cot	3.5	0.00015	mg/L	0.000258	0.00015	mg/L	0.000258	167.49%
QC value within limits for Co	Recovery = Not calculated							
Crt	-5.7	-0.00008	mg/L	0.000041	-0.00008	mg/L	0.000041	50.13%
QC value within limits for Cr	Recovery = Not calculated							
Cut	9.7	0.00002	mg/L	0.000000	0.00002	mg/L	0.000000	0.79%
QC value within limits for Cu	Recovery = Not calculated							
Fet	-3.9	-0.00215	mg/L	0.000862	-0.00215	mg/L	0.000862	40.18%
QC value within limits for Fe	Recovery = Not calculated							
Kt	0.9	0.00065	mg/L	0.029362	0.00065	mg/L	0.029362	>999.9%
QC value within limits for K	Recovery = Not calculated							
Mgt	3.5	0.00086	mg/L	0.000511	0.00086	mg/L	0.000511	59.10%
QC value within limits for Mg	Recovery = Not calculated							
Mnt	-219.4	-0.00040	mg/L	0.000001	-0.00040	mg/L	0.000001	0.35%
QC value within limits for Mn	Recovery = Not calculated							
Mot	-2.6	-0.00018	mg/L	0.000072	-0.00018	mg/L	0.000072	40.60%
QC value within limits for Mo	Recovery = Not calculated							
Nat	64.6	0.0192	mg/L	0.01090	0.0192	mg/L	0.01090	56.75%
QC value within limits for Na	Recovery = Not calculated							
Nit	-1.4	-0.00006	mg/L	0.000033	-0.00006	mg/L	0.000033	52.44%
QC value within limits for Ni	Recovery = Not calculated							
Pbt	5.3	0.00099	mg/L	0.000607	0.00099	mg/L	0.000607	61.12%
QC value within limits for Pb	Recovery = Not calculated							
Sbt	-9.3	-0.00584	mg/L	0.001869	-0.00584	mg/L	0.001869	32.01%
QC value within limits for Sb	Recovery = Not calculated							
Set	-0.4	-0.00025	mg/L	0.003919	-0.00025	mg/L	0.003919	>999.9%
QC value within limits for Se	Recovery = Not calculated							
Tlt	5.7	0.00193	mg/L	0.001258	0.00193	mg/L	0.001258	65.27%
QC value within limits for Tl	Recovery = Not calculated							
Vt	-22.9	-0.00014	mg/L	0.000120	-0.00014	mg/L	0.000120	84.96%
QC value within limits for V	Recovery = Not calculated							
Znt	13.6	0.00027	mg/L	0.000044	0.00027	mg/L	0.000044	16.26%
QC value within limits for Zn	Recovery = Not calculated							
Alxt	62.5	0.617	ug/L	0.1913	0.00062	mg/L	0.000191	31.03%
QC value within limits for Alx	Recovery = Not calculated							
Bext	159.9	0.0488	ug/L	0.00775	0.00005	mg/L	0.000008	15.90%
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: 8/13/2007 19:29:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: QC-25 1ppm

Analyte	Back Pressure	Flow
All	220.0 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	268220.7	104	%	2.0				1.93%
Yr	261327.0	100	%	1.1				1.10%
Ag†	172908.2	0.845	mg/L	0.0170	0.845	mg/L	0.0170	2.01%
QC value less than the lower limit for Ag Recovery = 84.46%								
Al†	4880.3	0.994	mg/L	0.0089	0.994	mg/L	0.0089	0.90%
QC value within limits for Al Recovery = 99.38%								
As†	1585.4	0.937	mg/L	0.0216	0.937	mg/L	0.0216	2.31%
QC value within limits for As Recovery = 93.68%								
B_†	23460.0	0.889	mg/L	0.0181	0.889	mg/L	0.0181	2.04%
QC value less than the lower limit for B_ Recovery = 88.85%								
Ba†	81857.9	1.00	mg/L	0.022	1.00	mg/L	0.022	2.24%
QC value within limits for Ba Recovery = 100.14%								
Be†	3054853.8	0.932	mg/L	0.0001	0.932	mg/L	0.0001	0.01%
QC value within limits for Be Recovery = 93.16%								
Ca†	10069.9	1.02	mg/L	0.014	1.02	mg/L	0.014	1.37%
QC value within limits for Ca Recovery = 102.25%								
Cd†	21431.1	0.904	mg/L	0.0141	0.904	mg/L	0.0141	1.56%
QC value within limits for Cd Recovery = 90.43%								
Co†	22642.7	0.999	mg/L	0.0207	0.999	mg/L	0.0207	2.08%
QC value within limits for Co Recovery = 99.88%								
Cr†	67063.3	0.955	mg/L	0.0218	0.955	mg/L	0.0218	2.28%
QC value within limits for Cr Recovery = 95.53%								
Cu†	400073.9	0.937	mg/L	0.0173	0.937	mg/L	0.0173	1.85%
QC value within limits for Cu Recovery = 93.72%								
Fe†	1832.9	1.00	mg/L	0.012	1.00	mg/L	0.012	1.20%
QC value within limits for Fe Recovery = 100.33%								
K†	12503.3	9.44	mg/L	0.035	9.44	mg/L	0.035	0.37%
QC value within limits for K Recovery = 94.36%								
Mg†	4332.7	1.07	mg/L	0.011	1.07	mg/L	0.011	1.02%
QC value within limits for Mg Recovery = 106.65%								
Mn†	539886.6	0.992	mg/L	0.0001	0.992	mg/L	0.0001	0.01%
QC value within limits for Mn Recovery = 99.23%								
Mo†	13624.7	0.913	mg/L	0.0178	0.913	mg/L	0.0178	1.94%
QC value within limits for Mo Recovery = 91.34%								
Na†	3550.7	1.06	mg/L	0.010	1.06	mg/L	0.010	0.98%
QC value within limits for Na Recovery = 105.51%								
Ni†	21844.8	1.00	mg/L	0.020	1.00	mg/L	0.020	2.04%
QC value within limits for Ni Recovery = 100.28%								
Pb†	5435.4	1.02	mg/L	0.023	1.02	mg/L	0.023	2.22%
QC value within limits for Pb Recovery = 101.59%								
Sb†	1496.6	0.926	mg/L	0.0192	0.926	mg/L	0.0192	2.07%
QC value within limits for Sb Recovery = 92.62%								
Se†	1363.4	0.908	mg/L	0.0216	0.908	mg/L	0.0216	2.37%
QC value within limits for Se Recovery = 90.80%								
Tl†	3034.3	1.02	mg/L	0.019	1.02	mg/L	0.019	1.87%
QC value within limits for Tl Recovery = 102.11%								
V†	149337.9	0.925	mg/L	0.0213	0.925	mg/L	0.0213	2.30%
QC value within limits for V Recovery = 92.46%								
Zn†	49349.7	0.966	mg/L	0.0180	0.966	mg/L	0.0180	1.86%
QC value within limits for Zn Recovery = 96.56%								
Alx†	94390.7	932	ug/L	9.1	0.932	mg/L	0.0091	0.98%
QC value within limits for Alx Recovery = 93.17%								
Bex†	3054853.8	932	ug/L	0.1	0.932	mg/L	0.0001	0.01%
QC value within limits for Bex Recovery = 93.16%								

QC Failed. Retry.

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

Autosampler Location: 12
Date Collected: 8/13/2007 19:32:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: QC-25 1ppm

Analyte	Back Pressure	Flow
All	220.0 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	263786.8	102	%	0.3				0.31%
Yr	258515.4	99.2	%	0.99				1.00%
Ag†	172841.0	0.844	mg/L	0.0014	0.844	mg/L	0.0014	0.17%
QC value less than the lower limit for Ag Recovery = 84.43%								
Al†	4946.9	1.01	mg/L	0.014	1.01	mg/L	0.014	1.40%
QC value within limits for Al Recovery = 100.74%								
As†	1606.9	0.949	mg/L	0.0025	0.949	mg/L	0.0025	0.27%
QC value within limits for As Recovery = 94.95%								
B_†	23569.8	0.893	mg/L	0.0019	0.893	mg/L	0.0019	0.21%
QC value less than the lower limit for B_ Recovery = 89.27%								
Ba†	82053.7	1.00	mg/L	0.007	1.00	mg/L	0.007	0.69%
QC value within limits for Ba Recovery = 100.38%								
Be†	3084809.1	0.941	mg/L	0.0101	0.941	mg/L	0.0101	1.07%
QC value within limits for Be Recovery = 94.07%								
Ca†	10202.0	1.04	mg/L	0.015	1.04	mg/L	0.015	1.44%
QC value within limits for Ca Recovery = 103.59%								
Cd†	21331.7	0.900	mg/L	0.0010	0.900	mg/L	0.0010	0.11%
QC value less than the lower limit for Cd Recovery = 89.98%								
Co†	22598.1	0.997	mg/L	0.0007	0.997	mg/L	0.0007	0.07%
QC value within limits for Co Recovery = 99.68%								
Cr†	67209.7	0.957	mg/L	0.0052	0.957	mg/L	0.0052	0.54%
QC value within limits for Cr Recovery = 95.73%								
Cu†	397370.5	0.931	mg/L	0.0061	0.931	mg/L	0.0061	0.66%
QC value within limits for Cu Recovery = 93.09%								
Fe†	1851.9	1.01	mg/L	0.014	1.01	mg/L	0.014	1.36%
QC value within limits for Fe Recovery = 101.37%								
K†	12656.8	9.55	mg/L	0.036	9.55	mg/L	0.036	0.37%
QC value within limits for K Recovery = 95.52%								
Mg†	4378.4	1.08	mg/L	0.013	1.08	mg/L	0.013	1.19%
QC value within limits for Mg Recovery = 107.77%								
Mn†	543579.0	0.999	mg/L	0.0126	0.999	mg/L	0.0126	1.26%
QC value within limits for Mn Recovery = 99.91%								
Mo†	13648.6	0.915	mg/L	0.0045	0.915	mg/L	0.0045	0.49%
QC value within limits for Mo Recovery = 91.50%								
Na†	3539.4	1.05	mg/L	0.001	1.05	mg/L	0.001	0.09%
QC value within limits for Na Recovery = 105.17%								
Ni†	21897.1	1.01	mg/L	0.008	1.01	mg/L	0.008	0.76%
QC value within limits for Ni Recovery = 100.52%								
Pb†	5521.6	1.03	mg/L	0.002	1.03	mg/L	0.002	0.23%
QC value within limits for Pb Recovery = 103.20%								
Sb†	1508.0	0.933	mg/L	0.0008	0.933	mg/L	0.0008	0.09%
QC value within limits for Sb Recovery = 93.33%								
Se†	1374.0	0.915	mg/L	0.0040	0.915	mg/L	0.0040	0.43%
QC value within limits for Se Recovery = 91.51%								
Tl†	3074.9	1.03	mg/L	0.004	1.03	mg/L	0.004	0.40%
QC value within limits for Tl Recovery = 103.47%								
V†	149546.4	0.926	mg/L	0.0073	0.926	mg/L	0.0073	0.79%
QC value within limits for V Recovery = 92.59%								
Zn†	49530.6	0.969	mg/L	0.0056	0.969	mg/L	0.0056	0.58%
QC value within limits for Zn Recovery = 96.91%								
Alx†	93592.3	924	ug/L	8.9	0.924	mg/L	0.0089	0.96%
QC value within limits for Alx Recovery = 92.38%								
Bex†	3084809.1	941	ug/L	10.1	0.941	mg/L	0.0101	1.07%

QC value within limits for Bex Recovery = 94.07%
QC Failed. Continue with analysis.

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

Autosampler Location: 4
Date Collected: 8/13/2007 19:37:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	220.0 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	247239.1	95.9	%	0.77				0.80%
Yr	247567.2	95.0	%	0.70				0.73%
Ag†	145530.1	0.711	mg/L	0.1118	0.711	mg/L	0.1118	15.73%
QC value within limits for Ag	Recovery = 71.09%							
Al†	25003.1	5.09	mg/L	0.068	5.09	mg/L	0.068	1.33%
QC value within limits for Al	Recovery = 101.83%							
As†	8342.1	4.93	mg/L	0.006	4.93	mg/L	0.006	0.11%
QC value within limits for As	Recovery = 98.58%							
B_†	63742.3	2.41	mg/L	0.005	2.41	mg/L	0.005	0.21%
QC value within limits for B_	Recovery = 96.38%							
Ba†	406329.2	4.97	mg/L	0.001	4.97	mg/L	0.001	0.03%
QC value within limits for Ba	Recovery = 99.41%							
Be†	6525437.7	1.99	mg/L	0.030	1.99	mg/L	0.030	1.53%
QC value within limits for Be	Recovery = 99.50%							
Ca†	512692.2	52.1	mg/L	0.08	52.1	mg/L	0.08	0.15%
QC value within limits for Ca	Recovery = 104.12%							
Cd†	59095.1	2.46	mg/L	0.003	2.46	mg/L	0.003	0.11%
QC value within limits for Cd	Recovery = 98.46%							
Co†	113684.8	5.01	mg/L	0.002	5.01	mg/L	0.002	0.04%
QC value within limits for Co	Recovery = 100.30%							
Cr†	345042.4	4.91	mg/L	0.017	4.91	mg/L	0.017	0.35%
QC value within limits for Cr	Recovery = 98.30%							
Cu†	2035223.5	4.77	mg/L	0.013	4.77	mg/L	0.013	0.27%
QC value within limits for Cu	Recovery = 95.35%							
Fe†	9424.1	5.16	mg/L	0.107	5.16	mg/L	0.107	2.07%
QC value within limits for Fe	Recovery = 103.17%							
K†	65880.4	49.7	mg/L	0.62	49.7	mg/L	0.62	1.24%
QC value within limits for K	Recovery = 99.44%							
Mg†	212996.4	52.4	mg/L	0.02	52.4	mg/L	0.02	0.04%
QC value within limits for Mg	Recovery = 104.86%							
Mn†	2728672.7	5.02	mg/L	0.004	5.02	mg/L	0.004	0.09%
QC value within limits for Mn	Recovery = 100.30%							
Mo†	72772.6	4.88	mg/L	0.015	4.88	mg/L	0.015	0.31%
QC value within limits for Mo	Recovery = 97.57%							
Na†	173915.9	51.7	mg/L	0.10	51.7	mg/L	0.10	0.19%
QC value within limits for Na	Recovery = 103.36%							
Ni†	110142.9	5.06	mg/L	0.021	5.06	mg/L	0.021	0.42%
QC value within limits for Ni	Recovery = 101.13%							
Pb†	27391.7	5.12	mg/L	0.004	5.12	mg/L	0.004	0.07%
QC value within limits for Pb	Recovery = 102.39%							
Sb†	7950.1	4.92	mg/L	0.010	4.92	mg/L	0.010	0.20%
QC value within limits for Sb	Recovery = 98.47%							
Se†	7602.8	5.06	mg/L	0.025	5.06	mg/L	0.025	0.49%
QC value within limits for Se	Recovery = 101.26%							
Tl†	15539.0	5.23	mg/L	0.001	5.23	mg/L	0.001	0.02%
QC value within limits for Tl	Recovery = 104.59%							
V†	795964.4	4.93	mg/L	0.011	4.93	mg/L	0.011	0.22%
QC value within limits for V	Recovery = 98.54%							
Zn†	263142.8	5.15	mg/L	0.018	5.15	mg/L	0.018	0.35%
QC value within limits for Zn	Recovery = 103.01%							
Alx†	491360.1	4850	ug/L	29.9	4.85	mg/L	0.030	0.62%
QC value within limits for Alx	Recovery = 97.00%							
Bex†	6525437.7	1990	ug/L	30.4	1.99	mg/L	0.030	1.53%
QC value within limits for Bex	Recovery = 99.50%							

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 8/13/2007 19:40:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.65 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	261637.5	101	%	0.3				0.32%
Yr	255025.6	97.8	%	0.31				0.31%
Agt	3844.9	0.0188	mg/L	0.00031	0.0188	mg/L	0.00031	1.64%
QC value greater than the upper limit for Ag Recovery = Not calculated								
Alt	-1.3	-0.00026	mg/L	0.007468	-0.00026	mg/L	0.007468	>999.9%
QC value within limits for Al Recovery = Not calculated								
Ast	13.5	0.00799	mg/L	0.002443	0.00799	mg/L	0.002443	30.59%
QC value within limits for As Recovery = Not calculated								
B_t	427.6	0.0162	mg/L	0.00149	0.0162	mg/L	0.00149	9.20%
QC value within limits for B_ Recovery = Not calculated								
Bat	-10.2	-0.00013	mg/L	0.000104	-0.00013	mg/L	0.000104	83.42%
QC value within limits for Ba Recovery = Not calculated								
Bet	110.0	0.00003	mg/L	0.000039	0.00003	mg/L	0.000039	115.33%
QC value within limits for Be Recovery = Not calculated								
Cat	12.7	0.00129	mg/L	0.000868	0.00129	mg/L	0.000868	67.27%
QC value within limits for Ca Recovery = Not calculated								
Cdt	15.8	0.00054	mg/L	0.000031	0.00054	mg/L	0.000031	5.81%
QC value within limits for Cd Recovery = Not calculated								
Cot	-2.1	-0.00009	mg/L	0.000368	-0.00009	mg/L	0.000368	400.35%
QC value within limits for Co Recovery = Not calculated								
Crt	0.7	0.00001	mg/L	0.000024	0.00001	mg/L	0.000024	242.33%
QC value within limits for Cr Recovery = Not calculated								
Cut	172.8	0.00040	mg/L	0.000218	0.00040	mg/L	0.000218	53.86%
QC value within limits for Cu Recovery = Not calculated								
Fet	-0.6	-0.00035	mg/L	0.000325	-0.00035	mg/L	0.000325	93.85%
QC value within limits for Fe Recovery = Not calculated								
Kt	-16.1	-0.0122	mg/L	0.01473	-0.0122	mg/L	0.01473	121.20%
QC value within limits for K Recovery = Not calculated								
Mgt	6.3	0.00156	mg/L	0.000058	0.00156	mg/L	0.000058	3.74%
QC value within limits for Mg Recovery = Not calculated								
Mnt	-206.7	-0.00038	mg/L	0.000007	-0.00038	mg/L	0.000007	1.81%
QC value within limits for Mn Recovery = Not calculated								
Mot	14.0	0.00094	mg/L	0.000277	0.00094	mg/L	0.000277	29.64%
QC value within limits for Mo Recovery = Not calculated								
Nat	135.6	0.0403	mg/L	0.02568	0.0403	mg/L	0.02568	63.72%
QC value within limits for Na Recovery = Not calculated								
Nit	-6.0	-0.00027	mg/L	0.000123	-0.00027	mg/L	0.000123	45.01%
QC value within limits for Ni Recovery = Not calculated								
Pbt	11.2	0.00209	mg/L	0.000530	0.00209	mg/L	0.000530	25.33%
QC value within limits for Pb Recovery = Not calculated								
Sbt	0.9	0.00056	mg/L	0.002258	0.00056	mg/L	0.002258	405.01%
QC value within limits for Sb Recovery = Not calculated								
Set	-1.1	-0.00076	mg/L	0.001811	-0.00076	mg/L	0.001811	239.29%
QC value within limits for Se Recovery = Not calculated								
Tlt	5.2	0.00176	mg/L	0.000094	0.00176	mg/L	0.000094	5.34%
QC value within limits for Tl Recovery = Not calculated								
Vt	-18.1	-0.00011	mg/L	0.000110	-0.00011	mg/L	0.000110	99.09%
QC value within limits for V Recovery = Not calculated								
Znt	43.0	0.00085	mg/L	0.000092	0.00085	mg/L	0.000092	10.80%
QC value within limits for Zn Recovery = Not calculated								
Alxt	109.8	1.08	ug/L	0.991	0.00108	mg/L	0.000991	91.42%
QC value within limits for Alx Recovery = Not calculated								
Bext	110.0	0.0336	ug/L	0.03870	0.00003	mg/L	0.000039	115.33%
QC value within limits for Bex Recovery = Not calculated								

QC Failed. Retry.

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

Autosampler Location: 0
Date Collected: 8/13/2007 19:42:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	221.0 kPa	0.65 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	264330.7	102	%	1.4				1.37%
Yr	254016.5	97.4	%	0.03				0.03%
Agt	3111.8	0.0152	mg/L	0.00032	0.0152	mg/L	0.00032	2.09%
QC value greater than the upper limit for Ag Recovery = Not calculated								
Alt	22.9	0.00467	mg/L	0.003426	0.00467	mg/L	0.003426	73.37%
QC value within limits for Al Recovery = Not calculated								
Ast	3.9	0.00229	mg/L	0.001814	0.00229	mg/L	0.001814	79.28%
QC value within limits for As Recovery = Not calculated								
B_t	243.7	0.00925	mg/L	0.000818	0.00925	mg/L	0.000818	8.84%
QC value within limits for B_ Recovery = Not calculated								
Bat	-9.8	-0.00012	mg/L	0.000026	-0.00012	mg/L	0.000026	21.82%
QC value within limits for Ba Recovery = Not calculated								
Bet	86.9	0.00003	mg/L	0.000018	0.00003	mg/L	0.000018	66.42%
QC value within limits for Be Recovery = Not calculated								
Cat	30.5	0.00310	mg/L	0.001607	0.00310	mg/L	0.001607	51.90%
QC value within limits for Ca Recovery = Not calculated								
Cdt	6.1	0.00022	mg/L	0.000199	0.00022	mg/L	0.000199	89.24%
QC value within limits for Cd Recovery = Not calculated								
Cot	2.1	0.00009	mg/L	0.000001	0.00009	mg/L	0.000001	0.60%
QC value within limits for Co Recovery = Not calculated								
Crt	-8.5	-0.00012	mg/L	0.000113	-0.00012	mg/L	0.000113	93.53%
QC value within limits for Cr Recovery = Not calculated								
Cut	61.7	0.00014	mg/L	0.000355	0.00014	mg/L	0.000355	245.65%
QC value within limits for Cu Recovery = Not calculated								
Fet	-1.0	-0.00055	mg/L	0.001017	-0.00055	mg/L	0.001017	184.80%
QC value within limits for Fe Recovery = Not calculated								
Kt	-68.3	-0.0516	mg/L	0.00375	-0.0516	mg/L	0.00375	7.28%
QC value within limits for K Recovery = Not calculated								
Mgt	2.5	0.00060	mg/L	0.000565	0.00060	mg/L	0.000565	93.49%
QC value within limits for Mg Recovery = Not calculated								
Mnt	-236.6	-0.00043	mg/L	0.000013	-0.00043	mg/L	0.000013	2.94%
QC value within limits for Mn Recovery = Not calculated								
Mot	5.7	0.00038	mg/L	0.000179	0.00038	mg/L	0.000179	46.73%
QC value within limits for Mo Recovery = Not calculated								
Nat	39.5	0.0117	mg/L	0.01933	0.0117	mg/L	0.01933	164.53%
QC value within limits for Na Recovery = Not calculated								
Nit	-2.5	-0.00011	mg/L	0.000088	-0.00011	mg/L	0.000088	77.83%
QC value within limits for Ni Recovery = Not calculated								
Pbt	14.5	0.00271	mg/L	0.000425	0.00271	mg/L	0.000425	15.71%
QC value within limits for Pb Recovery = Not calculated								
Sbt	-5.7	-0.00358	mg/L	0.000335	-0.00358	mg/L	0.000335	9.36%
QC value within limits for Sb Recovery = Not calculated								
Set	-6.1	-0.00404	mg/L	0.001636	-0.00404	mg/L	0.001636	40.53%
QC value within limits for Se Recovery = Not calculated								
Tlt	7.8	0.00262	mg/L	0.000248	0.00262	mg/L	0.000248	9.47%
QC value within limits for Tl Recovery = Not calculated								
Vt	-28.4	-0.00018	mg/L	0.000190	-0.00018	mg/L	0.000190	108.38%
QC value within limits for V Recovery = Not calculated								
Znt	14.9	0.00029	mg/L	0.000332	0.00029	mg/L	0.000332	112.83%
QC value within limits for Zn Recovery = Not calculated								
Alxt	25.8	0.255	ug/L	0.0912	0.00025	mg/L	0.000091	35.79%
QC value within limits for Alx Recovery = Not calculated								
Bext	86.9	0.0265	ug/L	0.01761	0.00003	mg/L	0.000018	66.42%

QC value within limits for Bex Recovery = Not calculated
QC Failed. Retry.

Sequence No.: 13
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 8/13/2007 19:45:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	220.0 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	267577.8	104	%	0.4				0.41%
Yr	253537.2	97.2	%	0.51				0.52%
Ag†	2423.5	0.0118	mg/L	0.00087	0.0118	mg/L	0.00087	7.34%
QC value greater than the upper limit for Ag Recovery = Not calculated								
Al†	28.5	0.00581	mg/L	0.003644	0.00581	mg/L	0.003644	62.73%
QC value within limits for Al Recovery = Not calculated								
As†	0.4	0.00023	mg/L	0.004127	0.00023	mg/L	0.004127	>999.9%
QC value within limits for As Recovery = Not calculated								
B_†	166.2	0.00631	mg/L	0.000262	0.00631	mg/L	0.000262	4.15%
QC value within limits for B_ Recovery = Not calculated								
Ba†	-6.8	-0.00008	mg/L	0.000025	-0.00008	mg/L	0.000025	30.37%
QC value within limits for Ba Recovery = Not calculated								
Be†	210.7	0.00006	mg/L	0.000012	0.00006	mg/L	0.000012	19.06%
QC value within limits for Be Recovery = Not calculated								
Ca†	24.1	0.00244	mg/L	0.000027	0.00244	mg/L	0.000027	1.09%
QC value within limits for Ca Recovery = Not calculated								
Cd†	1.7	0.00007	mg/L	0.000076	0.00007	mg/L	0.000076	109.36%
QC value within limits for Cd Recovery = Not calculated								
Co†	-3.8	-0.00017	mg/L	0.000216	-0.00017	mg/L	0.000216	130.12%
QC value within limits for Co Recovery = Not calculated								
Cr†	-4.4	-0.00006	mg/L	0.000040	-0.00006	mg/L	0.000040	62.53%
QC value within limits for Cr Recovery = Not calculated								
Cu†	8.7	0.00002	mg/L	0.000087	0.00002	mg/L	0.000087	429.06%
QC value within limits for Cu Recovery = Not calculated								
Fe†	-0.5	-0.00028	mg/L	0.001366	-0.00028	mg/L	0.001366	482.81%
QC value within limits for Fe Recovery = Not calculated								
K†	-57.0	-0.0430	mg/L	0.04269	-0.0430	mg/L	0.04269	99.25%
QC value within limits for K Recovery = Not calculated								
Mg†	1.7	0.00043	mg/L	0.000068	0.00043	mg/L	0.000068	15.85%
QC value within limits for Mg Recovery = Not calculated								
Mn†	-250.3	-0.00046	mg/L	0.000002	-0.00046	mg/L	0.000002	0.35%
QC value within limits for Mn Recovery = Not calculated								
Mo†	3.5	0.00024	mg/L	0.000021	0.00024	mg/L	0.000021	8.82%
QC value within limits for Mo Recovery = Not calculated								
Na†	9.6	0.00285	mg/L	0.006064	0.00285	mg/L	0.006064	212.43%
QC value within limits for Na Recovery = Not calculated								
Ni†	-5.9	-0.00027	mg/L	0.000215	-0.00027	mg/L	0.000215	78.77%
QC value within limits for Ni Recovery = Not calculated								
Pb†	7.8	0.00147	mg/L	0.000617	0.00147	mg/L	0.000617	42.06%
QC value within limits for Pb Recovery = Not calculated								
Sb†	1.8	0.00115	mg/L	0.002330	0.00115	mg/L	0.002330	202.13%
QC value within limits for Sb Recovery = Not calculated								
Se†	-1.1	-0.00071	mg/L	0.004101	-0.00071	mg/L	0.004101	573.66%
QC value within limits for Se Recovery = Not calculated								
Tl†	6.5	0.00218	mg/L	0.000825	0.00218	mg/L	0.000825	37.88%
QC value within limits for Tl Recovery = Not calculated								
V†	3.6	0.00002	mg/L	0.000246	0.00002	mg/L	0.000246	>999.9%
QC value within limits for V Recovery = Not calculated								
Zn†	3.6	0.00007	mg/L	0.000098	0.00007	mg/L	0.000098	136.31%
QC value within limits for Zn Recovery = Not calculated								
Alx†	29.4	0.290	ug/L	0.5995	0.00029	mg/L	0.000600	206.73%
QC value within limits for Alx Recovery = Not calculated								

Bex†	210.7	0.0643 ug/L	0.01225	0.00006 mg/L	0.000012 19.06%

QC value within limits for Bex Recovery = Not calculated
QC Failed. Retry.

Sequence No.: 14
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 8/13/2007 19:48:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	220.0 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	261103.4	101	%	0.1				0.09%
Yr	256503.5	98.4	%	0.06				0.06%
Ag†	1884.1	0.00920	mg/L	0.000656	0.00920	mg/L	0.000656	7.12%
QC value within limits for Ag Recovery = Not calculated								
Al†	-8.6	-0.00175	mg/L	0.005845	-0.00175	mg/L	0.005845	333.95%
QC value within limits for Al Recovery = Not calculated								
As†	2.7	0.00160	mg/L	0.000163	0.00160	mg/L	0.000163	10.14%
QC value within limits for As Recovery = Not calculated								
B_†	131.1	0.00498	mg/L	0.000275	0.00498	mg/L	0.000275	5.52%
QC value within limits for B_ Recovery = Not calculated								
Ba†	-5.8	-0.00007	mg/L	0.000036	-0.00007	mg/L	0.000036	51.24%
QC value within limits for Ba Recovery = Not calculated								
Be†	37.4	0.00001	mg/L	0.000013	0.00001	mg/L	0.000013	116.81%
QC value within limits for Be Recovery = Not calculated								
Ca†	3.5	0.00036	mg/L	0.000041	0.00036	mg/L	0.000041	11.46%
QC value within limits for Ca Recovery = Not calculated								
Cd†	2.7	0.00009	mg/L	0.000099	0.00009	mg/L	0.000099	112.08%
QC value within limits for Cd Recovery = Not calculated								
Co†	-0.8	-0.00004	mg/L	0.000365	-0.00004	mg/L	0.000365	>999.9%
QC value within limits for Co Recovery = Not calculated								
Cr†	1.1	0.00002	mg/L	0.000003	0.00002	mg/L	0.000003	21.42%
QC value within limits for Cr Recovery = Not calculated								
Cu†	96.3	0.00023	mg/L	0.000128	0.00023	mg/L	0.000128	56.82%
QC value within limits for Cu Recovery = Not calculated								
Fe†	0.2	0.00010	mg/L	0.001586	0.00010	mg/L	0.001586	>999.9%
QC value within limits for Fe Recovery = Not calculated								
K†	-4.6	-0.00344	mg/L	0.008090	-0.00344	mg/L	0.008090	235.22%
QC value within limits for K Recovery = Not calculated								
Mg†	3.1	0.00075	mg/L	0.000717	0.00075	mg/L	0.000717	95.24%
QC value within limits for Mg Recovery = Not calculated								
Mn†	-244.7	-0.00045	mg/L	0.000029	-0.00045	mg/L	0.000029	6.40%
QC value within limits for Mn Recovery = Not calculated								
Mo†	1.3	0.00009	mg/L	0.000168	0.00009	mg/L	0.000168	191.10%
QC value within limits for Mo Recovery = Not calculated								
Na†	37.3	0.0111	mg/L	0.01356	0.0111	mg/L	0.01356	122.46%
QC value within limits for Na Recovery = Not calculated								
Ni†	0.5	0.00002	mg/L	0.000457	0.00002	mg/L	0.000457	>999.9%
QC value within limits for Ni Recovery = Not calculated								
Pb†	7.9	0.00148	mg/L	0.000252	0.00148	mg/L	0.000252	17.07%
QC value within limits for Pb Recovery = Not calculated								
Sb†	-4.0	-0.00251	mg/L	0.001990	-0.00251	mg/L	0.001990	79.18%
QC value within limits for Sb Recovery = Not calculated								
Se†	-5.8	-0.00389	mg/L	0.000287	-0.00389	mg/L	0.000287	7.38%
QC value within limits for Se Recovery = Not calculated								
Tl†	3.1	0.00105	mg/L	0.000695	0.00105	mg/L	0.000695	66.39%
QC value within limits for Tl Recovery = Not calculated								
V†	-28.7	-0.00018	mg/L	0.000032	-0.00018	mg/L	0.000032	18.28%
QC value within limits for V Recovery = Not calculated								
Zn†	10.3	0.00020	mg/L	0.000000	0.00020	mg/L	0.000000	0.22%
QC value within limits for Zn Recovery = Not calculated								
Alx†	72.5	0.716	ug/L	0.7370	0.00072	mg/L	0.000737	102.95%

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	263475.8	102	%	0.4				0.41%
Yr	254576.6	97.6	%	0.43				0.44%
B_†	1294.0	0.0490	mg/L	0.00018	0.0490	mg/L	0.00018	0.38%
QC value within limits for B_ Recovery = 98.03%								
Ba†	1617.0	0.0198	mg/L	0.00008	0.0198	mg/L	0.00008	0.38%
QC value within limits for Ba Recovery = 98.91%								
Be†	3362.9	0.00103	mg/L	0.000017	0.00103	mg/L	0.000017	1.70%
QC value within limits for Be Recovery = 102.55%								
Ca†	10207.1	1.04	mg/L	0.001	1.04	mg/L	0.001	0.05%
QC value within limits for Ca Recovery = 103.65%								
Cd†	190.9	0.00836	mg/L	0.000090	0.00836	mg/L	0.000090	1.07%
QC value greater than the upper limit for Cd Recovery = 167.20%								
Co†	1133.0	0.0500	mg/L	0.00012	0.0500	mg/L	0.00012	0.24%
QC value within limits for Co Recovery = 99.95%								
Cr†	685.0	0.00976	mg/L	0.000169	0.00976	mg/L	0.000169	1.73%
QC value within limits for Cr Recovery = 97.57%								
Cu†	4167.3	0.00980	mg/L	0.000149	0.00980	mg/L	0.000149	1.52%
QC value within limits for Cu Recovery = 98.00%								
Fe†	38.8	0.0213	mg/L	0.00114	0.0213	mg/L	0.00114	5.35%
QC value within limits for Fe Recovery = 106.27%								
K†	1195.2	0.902	mg/L	0.0532	0.902	mg/L	0.0532	5.90%
QC value within limits for K Recovery = 90.20%								
Mg†	436.7	0.107	mg/L	0.0008	0.107	mg/L	0.0008	0.76%
QC value within limits for Mg Recovery = 107.50%								
Mo†	281.9	0.0189	mg/L	0.00020	0.0189	mg/L	0.00020	1.04%
QC value within limits for Mo Recovery = 94.49%								
Na†	3486.0	1.04	mg/L	0.012	1.04	mg/L	0.012	1.12%
QC value within limits for Na Recovery = 103.59%								
Ni†	443.5	0.0204	mg/L	0.00008	0.0204	mg/L	0.00008	0.38%
QC value within limits for Ni Recovery = 101.79%								
Pb†	118.4	0.0221	mg/L	0.00128	0.0221	mg/L	0.00128	5.77%
QC value within limits for Pb Recovery = 110.65%								
Tl†	324.8	0.109	mg/L	0.0007	0.109	mg/L	0.0007	0.60%
QC value within limits for Tl Recovery = 109.04%								
V†	291.2	0.00185	mg/L	0.000096	0.00185	mg/L	0.000096	5.21%
QC value within limits for V Recovery = 92.31%								
Zn†	895.7	0.0175	mg/L	0.00010	0.0175	mg/L	0.00010	0.58%
QC value within limits for Zn Recovery = 87.55%								

QC Failed. Continue with analysis.

Sequence No.: 17
Sample ID: FILTER_CHECK
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 16
Date Collected: 8/13/2007 19:57:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: FILTER_CHECK

Analyte	Back Pressure	Flow
All	220.0 kPa	0.65 L/min

Mean Data: FILTER_CHECK

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	264917.0	103	%	1.0				0.98%
Yr	254463.6	97.6	%	1.18				1.21%
B_t	37.5	0.00142	mg/L	0.000264	0.00142	mg/L	0.000264	18.54%
Bat	-10.2	-0.00012	mg/L	0.000002	-0.00012	mg/L	0.000002	1.66%
Bet	8.3	0.00000	mg/L	0.000016	0.00000	mg/L	0.000016	649.81%
Cat	-94.8	-0.00962	mg/L	0.001093	-0.00962	mg/L	0.001093	11.35%
Cdt	-4.3	-0.00018	mg/L	0.000030	-0.00018	mg/L	0.000030	16.01%
Cot	-0.6	-0.00002	mg/L	0.000266	-0.00002	mg/L	0.000266	>999.9%
Crt	-13.3	-0.00019	mg/L	0.000209	-0.00019	mg/L	0.000209	110.50%
Cut	-43.0	-0.00010	mg/L	0.000069	-0.00010	mg/L	0.000069	68.62%
Fet	-1.9	-0.00107	mg/L	0.001705	-0.00107	mg/L	0.001705	159.79%
Kt	-85.6	-0.0646	mg/L	0.00869	-0.0646	mg/L	0.00869	13.44%
Mgt	0.2	0.00005	mg/L	0.001443	0.00005	mg/L	0.001443	>999.9%
Mot	-4.6	-0.00031	mg/L	0.000299	-0.00031	mg/L	0.000299	96.14%
Nat	12.8	0.00380	mg/L	0.012744	0.00380	mg/L	0.012744	335.32%
Nit	-0.9	-0.00004	mg/L	0.000056	-0.00004	mg/L	0.000056	135.80%
Pbt	9.7	0.00181	mg/L	0.000826	0.00181	mg/L	0.000826	45.52%
Tlt	2.8	0.00094	mg/L	0.002544	0.00094	mg/L	0.002544	270.58%
Vt	12.8	0.00008	mg/L	0.000019	0.00008	mg/L	0.000019	24.25%
Znt	-145.5	-0.00287	mg/L	0.000062	-0.00287	mg/L	0.000062	2.18%

Sequence No.: 18
Sample ID: MRL6010
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 23
Date Collected: 8/13/2007 20:01:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MRL6010

Analyte	Back Pressure	Flow
All	220.0 kPa	0.65 L/min

Mean Data: MRL6010

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	395035.5	153	%	60.1				39.25%
Yr	276954.9	106	%	92.2				86.78%
B_t	-86.2	-0.00327	mg/L	0.002881	-0.00327	mg/L	0.002881	88.05%
Bat	3.2	0.00004	mg/L	0.000021	0.00004	mg/L	0.000021	53.92%
Bet	3019.4	0.00092	mg/L	0.000129	0.00092	mg/L	0.000129	13.97%
Cat	-92.3	-0.00938	mg/L	0.012005	-0.00938	mg/L	0.012005	128.05%
Cdt	-26.3	-0.00113	mg/L	0.000805	-0.00113	mg/L	0.000805	71.46%
Cot	6.1	0.00027	mg/L	0.000221	0.00027	mg/L	0.000221	82.12%
Crt	-186.8	-0.00266	mg/L	0.000566	-0.00266	mg/L	0.000566	21.28%
Cut	-2982.4	-0.00698	mg/L	0.001434	-0.00698	mg/L	0.001434	20.55%
Fet	-5.9	-0.00322	mg/L	0.011821	-0.00322	mg/L	0.011821	367.08%
Kt	-38.2	-0.0288	mg/L	0.23262	-0.0288	mg/L	0.23262	807.52%
Mgt	-1.7	-0.00043	mg/L	0.018422	-0.00043	mg/L	0.018422	>999.9%
Mot	-16.7	-0.00112	mg/L	0.000498	-0.00112	mg/L	0.000498	44.60%
Nat	-1.4	-0.00042	mg/L	0.128660	-0.00042	mg/L	0.128660	>999.9%
Nit	-6.0	-0.00027	mg/L	0.000363	-0.00027	mg/L	0.000363	132.35%
Pbt	38.9	0.00727	mg/L	0.002414	0.00727	mg/L	0.002414	33.21%
Tlt	6.2	0.00209	mg/L	0.002305	0.00209	mg/L	0.002305	110.13%
Vt	-83.7	-0.00053	mg/L	0.000446	-0.00053	mg/L	0.000446	84.27%
Znt	-198.7	-0.00391	mg/L	0.000724	-0.00391	mg/L	0.000724	18.51%

Sequence No.: 15
Sample ID: MRL6010
Analyst: Walter Esieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 24
Data Collected: 8/14/2007 09:10:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MRL6010

Analyte	Back Pressure	Flow
All	219.0 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	631584.6	105	%	1.9				1.84%
Yr	370573.9	104	%	1.7				1.62%
Agt	2817.4	0.0102	mg/L	0.00004	0.0102	mg/L	0.00004	0.42%
Alt	295.9	0.0630	mg/L	0.00334	0.0630	mg/L	0.00334	5.30%
Ast	219.1	0.0968	mg/L	0.00138	0.0968	mg/L	0.00138	1.42%
B_t	1695.1	0.0528	mg/L	0.00050	0.0528	mg/L	0.00050	0.94%
Bat	1517.5	0.0207	mg/L	0.00024	0.0207	mg/L	0.00024	1.16%
Bet	3286.1	0.00112	mg/L	0.000013	0.00112	mg/L	0.000013	1.17%
Cat	10009.6	1.08	mg/L	0.001	1.08	mg/L	0.001	0.05%
Cdt	170.8	0.00463	mg/L	0.000023	0.00463	mg/L	0.000023	0.49%
Cot	1446.6	0.0533	mg/L	0.00073	0.0533	mg/L	0.00073	1.37%
Crt	757.8	0.00994	mg/L	0.000101	0.00994	mg/L	0.000101	1.01%
Cut	3947.0	0.0107	mg/L	0.00006	0.0107	mg/L	0.00006	0.55%
Fet	37.5	0.0231	mg/L	0.00074	0.0231	mg/L	0.00074	3.21%
Kt	1321.2	1.01	mg/L	0.021	1.01	mg/L	0.021	2.07%
Mgt	481.9	0.108	mg/L	0.0020	0.108	mg/L	0.0020	1.87%
Mnt	1238.9	0.00225	mg/L	0.000037	0.00225	mg/L	0.000037	1.63%
Mot	263.9	0.0199	mg/L	0.00056	0.0199	mg/L	0.00056	2.81%
Nat	3160.7	1.06	mg/L	0.011	1.06	mg/L	0.011	1.04%
Nit	479.6	0.0213	mg/L	0.00029	0.0213	mg/L	0.00029	1.34%
Pbt	111.7	0.0228	mg/L	0.00164	0.0228	mg/L	0.00164	7.20%
Sbt	92.6	0.0445	mg/L	0.00018	0.0445	mg/L	0.00018	0.39%
Set	145.3	0.103	mg/L	0.0036	0.103	mg/L	0.0036	3.52%
Tlt	325.5	0.112	mg/L	0.0011	0.112	mg/L	0.0011	0.98%
Vt	310.5	0.00194	mg/L	0.000295	0.00194	mg/L	0.000295	15.24%
Znt	1198.5	0.0240	mg/L	0.00061	0.0240	mg/L	0.00061	2.53%
Alxt	7148.3	74.4	ug/L	0.88	0.0744	mg/L	0.00088	1.19%
Bext	3286.1	1.12	ug/L	0.013	0.00112	mg/L	0.000013	1.17%

MRL 6010
Rerun for 070814
8/14/07

Sequence No.: 19
Sample ID: MBLANK
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 38
Date Collected: 8/13/2007 20:05:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MBLANK

Analyte	Back Pressure	Flow
All	219.0 kPa	0.65 L/min

Mean Data: MBLANK

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	272687.9	106	%	0.3				0.24%
Yr	256801.0	98.5	%	0.82				0.83%
B_t	38.0	0.00144	mg/L	0.000089	0.00144	mg/L	0.000089	6.19%
Bat	-4.8	-0.00006	mg/L	0.000038	-0.00006	mg/L	0.000038	64.02%
Bet	76.4	0.00002	mg/L	0.000006	0.00002	mg/L	0.000006	24.21%
Cat	492.4	0.0500	mg/L	0.00069	0.0500	mg/L	0.00069	1.39%
Cdt	-0.8	-0.00003	mg/L	0.000175	-0.00003	mg/L	0.000175	520.85%
Cot	-0.2	-0.00001	mg/L	0.000071	-0.00001	mg/L	0.000071	810.65%
Crt	-6.5	-0.00009	mg/L	0.000057	-0.00009	mg/L	0.000057	62.35%
Cut	-37.2	-0.00009	mg/L	0.000158	-0.00009	mg/L	0.000158	181.83%
Fet	2.9	0.00157	mg/L	0.000015	0.00157	mg/L	0.000015	0.97%
Kt	-87.0	-0.0656	mg/L	0.02648	-0.0656	mg/L	0.02648	40.35%
Mgt	18.3	0.00450	mg/L	0.000530	0.00450	mg/L	0.000530	11.78%
Mot	-0.2	-0.00001	mg/L	0.000287	-0.00001	mg/L	0.000287	>999.9%
Nat	83.1	0.0247	mg/L	0.02126	0.0247	mg/L	0.02126	86.12%
Nit	-0.3	-0.00002	mg/L	0.000028	-0.00002	mg/L	0.000028	177.48%
Pbt	13.0	0.00244	mg/L	0.000906	0.00244	mg/L	0.000906	37.15%
Tlt	2.7	0.00090	mg/L	0.002447	0.00090	mg/L	0.002447	271.08%
Vt	-3.6	-0.00002	mg/L	0.000156	-0.00002	mg/L	0.000156	684.79%
Znt	89.1	0.00176	mg/L	0.000042	0.00176	mg/L	0.000042	2.39%

Sequence No.: 20
Sample ID: LCS
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 39
Date Collected: 8/13/2007 20:08:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCS

Analyte	Back Pressure	Flow
All	219.0 kPa	0.65 L/min

Mean Data: LCS

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	257550.0	99.9	%	1.79				1.79%
Yr	254796.7	97.7	%	1.07				1.10%
B_t	12529.7	0.474	mg/L	0.0010	0.474	mg/L	0.0010	0.21%
Bat	77869.2	0.953	mg/L	0.0095	0.953	mg/L	0.0095	0.99%
Bet	163821.6	0.0500	mg/L	0.00050	0.0500	mg/L	0.00050	0.99%
Cat	501425.8	50.9	mg/L	0.07	50.9	mg/L	0.07	0.14%
Cdt	5133.2	0.223	mg/L	0.0028	0.223	mg/L	0.0028	1.26%
Cot	22768.6	1.00	mg/L	0.013	1.00	mg/L	0.013	1.31%
Crt	67063.1	0.955	mg/L	0.0066	0.955	mg/L	0.0066	0.69%
Cut	410209.3	0.961	mg/L	0.0054	0.961	mg/L	0.0054	0.56%
Fet	9188.7	5.03	mg/L	0.026	5.03	mg/L	0.026	0.53%
Kt	25635.5	19.3	mg/L	0.15	19.3	mg/L	0.15	0.80%
Mgt	83719.3	20.6	mg/L	0.04	20.6	mg/L	0.04	0.19%
Mot	14210.9	0.953	mg/L	0.0127	0.953	mg/L	0.0127	1.33%
Nat	171567.3	51.0	mg/L	0.17	51.0	mg/L	0.17	0.33%
Nit	10852.6	0.498	mg/L	0.0065	0.498	mg/L	0.0065	1.31%
Pbt	5542.4	1.04	mg/L	0.017	1.04	mg/L	0.017	1.61%
Tlt	3179.1	1.07	mg/L	0.014	1.07	mg/L	0.014	1.33%
Vt	154367.8	0.956	mg/L	0.0077	0.956	mg/L	0.0077	0.81%
Znt	51744.5	1.02	mg/L	0.007	1.02	mg/L	0.007	0.69%

Sequence No.: 21
Sample ID: LCSD
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 40
Date Collected: 8/13/2007 20:12:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCSD

Analyte	Back Pressure	Flow
All	219.0 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	263250.2	102	%	0.5				0.49%
Yr	251007.8	96.3	%	1.14				1.18%
B_t	12437.3	0.470	mg/L	0.0022	0.470	mg/L	0.0022	0.46%
Bat	76752.4	0.939	mg/L	0.0017	0.939	mg/L	0.0017	0.19%
Bet	160781.3	0.0490	mg/L	0.00022	0.0490	mg/L	0.00022	0.45%
Cat	501523.4	50.9	mg/L	0.04	50.9	mg/L	0.04	0.07%
Cdt	5037.6	0.219	mg/L	0.0016	0.219	mg/L	0.0016	0.72%
Cot	22339.8	0.985	mg/L	0.0038	0.985	mg/L	0.0038	0.38%
Crt	66094.3	0.941	mg/L	0.0043	0.941	mg/L	0.0043	0.46%
Cut	408251.2	0.956	mg/L	0.0034	0.956	mg/L	0.0034	0.36%
Fet	9270.3	5.07	mg/L	0.046	5.07	mg/L	0.046	0.91%
Kt	25958.9	19.6	mg/L	0.05	19.6	mg/L	0.05	0.23%
Mgt	84288.9	20.7	mg/L	0.16	20.7	mg/L	0.16	0.76%
Mot	13920.3	0.933	mg/L	0.0024	0.933	mg/L	0.0024	0.26%
Nat	172105.1	51.1	mg/L	0.02	51.1	mg/L	0.02	0.03%
Nit	10601.8	0.487	mg/L	0.0019	0.487	mg/L	0.0019	0.40%
Pbt	5430.9	1.02	mg/L	0.006	1.02	mg/L	0.006	0.57%
Tlt	3119.2	1.05	mg/L	0.007	1.05	mg/L	0.007	0.67%
Vt	151866.7	0.940	mg/L	0.0040	0.940	mg/L	0.0040	0.43%
Znt	50968.5	1.00	mg/L	0.003	1.00	mg/L	0.003	0.27%

Sequence No.: 22
Sample ID: 2708020271_2X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 41
Date Collected: 8/13/2007 20:16:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020271_2X

Analyte	Back Pressure	Flow
All	220.0 kPa	0.65 L/min

Mean Data: 2708020271_2X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	240251.2	93.2	%	0.08				0.08%
Yr	239608.3	91.9	%	1.32				1.44%
B_t	38887.9	1.48	mg/L	0.004	2.95	mg/L	0.007	0.24%
Bat	1063.2	0.0130	mg/L	0.00003	0.0260	mg/L	0.00005	0.21%
Bet	-959.6	-0.00029	mg/L	0.000005	-0.00059	mg/L	0.000010	1.73%
Cat	1895014.4	192	mg/L	1.8	385	mg/L	3.5	0.91%
Cdt	42.3	0.00181	mg/L	0.000008	0.00361	mg/L	0.000016	0.45%
Cot	-14.2	-0.00063	mg/L	0.000091	-0.00125	mg/L	0.000182	14.49%
Crt	7553.5	0.108	mg/L	0.0008	0.215	mg/L	0.0017	0.77%
Cut	984.4	0.00230	mg/L	0.000271	0.00461	mg/L	0.000543	11.78%
Fet	1.3	0.00072	mg/L	0.000759	0.00145	mg/L	0.001518	104.71%
Kt	23356.9	17.6	mg/L	0.07	35.3	mg/L	0.14	0.41%
Mgt	368732.5	90.8	mg/L	0.90	182	mg/L	1.8	0.99%
Mot	205.0	0.0137	mg/L	0.00017	0.0275	mg/L	0.00034	1.22%
Nat	1481669.5	440	mg/L	4.2	881	mg/L	8.4	0.95%
Nit	-16.2	-0.00074	mg/L	0.000353	-0.00148	mg/L	0.000707	47.64%
Pbt	-21.9	-0.00410	mg/L	0.000538	-0.00820	mg/L	0.001075	13.11%
Tlt	55.8	0.0188	mg/L	0.00307	0.0376	mg/L	0.00614	16.35%
Vt	2415.5	0.0155	mg/L	0.00008	0.0309	mg/L	0.00016	0.51%
Znt	361.8	0.00713	mg/L	0.000127	0.0143	mg/L	0.00025	1.78%

Sequence No.: 23
Sample ID: 2708020271_2XMS
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 42
Date Collected: 8/13/2007 20:20:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020271_2XMS

Analyte	Back Pressure	Flow
All	219.0 kPa	0.65 L/min

Mean Data: 2708020271_2XMS

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	238983.1	92.7	%	0.56				0.60%
Yr	235573.3	90.4	%	1.24				1.38%
B_t	45364.1	1.72	mg/L	0.008	3.44	mg/L	0.015	0.44%
Bat	40935.1	0.501	mg/L	0.0009	1.00	mg/L	0.002	0.17%
Bet	82115.4	0.0250	mg/L	0.00001	0.0501	mg/L	0.00001	0.03%
Cat	2137664.5	217	mg/L	0.7	434	mg/L	1.4	0.32%
Cdt	2735.8	0.119	mg/L	0.0002	0.238	mg/L	0.0003	0.14%
Cot	11136.0	0.491	mg/L	0.0022	0.982	mg/L	0.0045	0.46%
Crt	41284.5	0.588	mg/L	0.0002	1.18	mg/L	0.000	0.03%
Cut	214971.8	0.504	mg/L	0.0017	1.01	mg/L	0.003	0.34%
Fet	4857.3	2.66	mg/L	0.068	5.32	mg/L	0.135	2.54%
Kt	37861.4	28.6	mg/L	0.68	57.1	mg/L	1.37	2.39%
Mgt	408796.0	101	mg/L	0.0	201	mg/L	0.1	0.03%
Mot	7424.1	0.498	mg/L	0.0026	0.995	mg/L	0.0051	0.52%
Nat	1556229.9	462	mg/L	1.1	925	mg/L	2.2	0.24%
Nit	5237.2	0.240	mg/L	0.0018	0.481	mg/L	0.0037	0.77%
Pbt	2725.1	0.509	mg/L	0.0039	1.02	mg/L	0.008	0.77%
Tlt	1572.9	0.529	mg/L	0.0046	1.06	mg/L	0.009	0.87%
Vt	81527.3	0.505	mg/L	0.0001	1.01	mg/L	0.000	0.02%
Znt	27522.9	0.541	mg/L	0.0028	1.08	mg/L	0.006	0.52%

Sequence No.: 24
Sample ID: 2708020271_2XMSD
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 43
Date Collected: 8/13/2007 20:24:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020271_2XMSD

Analyte	Back Pressure	Flow
All	219.0 kPa	0.65 L/min

Mean Data: 2708020271_2XMSD

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	237294.6	92.0	%	0.03				0.03%
Yr	238965.5	91.7	%	0.21				0.23%
B_t	44702.6	1.70	mg/L	0.008	3.39	mg/L	0.016	0.48%
Bat	40297.1	0.493	mg/L	0.0027	0.986	mg/L	0.0054	0.55%
Bet	80677.3	0.0246	mg/L	0.00016	0.0492	mg/L	0.00031	0.63%
Cat	2106008.1	214	mg/L	0.1	428	mg/L	0.3	0.07%
Cdt	2692.6	0.117	mg/L	0.0001	0.234	mg/L	0.0002	0.09%
Cot	11003.3	0.485	mg/L	0.0013	0.971	mg/L	0.0026	0.26%
Crt	40567.2	0.578	mg/L	0.0022	1.16	mg/L	0.004	0.39%
Cut	211557.1	0.496	mg/L	0.0029	0.991	mg/L	0.0058	0.58%
Fet	4706.8	2.58	mg/L	0.038	5.15	mg/L	0.075	1.47%
Kt	37109.2	28.0	mg/L	0.02	56.0	mg/L	0.04	0.06%
Mgt	403360.3	99.3	mg/L	0.22	199	mg/L	0.4	0.22%
Mot	7347.9	0.493	mg/L	0.0016	0.985	mg/L	0.0032	0.33%
Nat	1537421.5	457	mg/L	1.4	914	mg/L	2.9	0.32%
Nit	5165.2	0.237	mg/L	0.0013	0.474	mg/L	0.0027	0.57%
Pbt	2647.4	0.495	mg/L	0.0015	0.990	mg/L	0.0029	0.30%
Tlt	1534.7	0.517	mg/L	0.0034	1.03	mg/L	0.007	0.66%
Vt	79992.0	0.496	mg/L	0.0022	0.991	mg/L	0.0045	0.45%
Znt	26938.3	0.529	mg/L	0.0021	1.06	mg/L	0.004	0.40%

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 8/13/2007 20:36:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	248794.2	96.5	%	0.82				0.85%
Yr	249401.6	95.7	%	0.42				0.43%
B_†	63579.0	2.40	mg/L	0.009	2.40	mg/L	0.009	0.38%
QC value within limits for B_ Recovery = 96.13%								
Ba†	399389.6	4.89	mg/L	0.005	4.89	mg/L	0.005	0.09%
QC value within limits for Ba Recovery = 97.72%								
Be†	6378886.9	1.95	mg/L	0.018	1.95	mg/L	0.018	0.94%
QC value within limits for Be Recovery = 97.26%								
Ca†	507692.5	51.6	mg/L	0.39	51.6	mg/L	0.39	0.77%
QC value within limits for Ca Recovery = 103.11%								
Cd†	58626.3	2.53	mg/L	0.008	2.53	mg/L	0.008	0.30%
QC value within limits for Cd Recovery = 101.09%								
Co†	113534.8	5.01	mg/L	0.012	5.01	mg/L	0.012	0.23%
QC value within limits for Co Recovery = 100.16%								
Cr†	341443.1	4.86	mg/L	0.018	4.86	mg/L	0.018	0.36%
QC value within limits for Cr Recovery = 97.27%								
Cu†	2016821.1	4.72	mg/L	0.013	4.72	mg/L	0.013	0.28%
QC value within limits for Cu Recovery = 94.49%								
Fe†	9168.8	5.02	mg/L	0.116	5.02	mg/L	0.116	2.31%
QC value within limits for Fe Recovery = 100.38%								
K†	65121.8	49.1	mg/L	1.02	49.1	mg/L	1.02	2.08%
QC value within limits for K Recovery = 98.29%								
Mg†	212930.7	52.4	mg/L	0.41	52.4	mg/L	0.41	0.78%
QC value within limits for Mg Recovery = 104.82%								
Mo†	71138.7	4.77	mg/L	0.024	4.77	mg/L	0.024	0.49%
QC value within limits for Mo Recovery = 95.38%								
Na†	174321.3	51.8	mg/L	0.33	51.8	mg/L	0.33	0.64%
QC value within limits for Na Recovery = 103.60%								
Ni†	108518.5	4.98	mg/L	0.014	4.98	mg/L	0.014	0.28%
QC value within limits for Ni Recovery = 99.63%								
Pb†	26965.0	5.04	mg/L	0.033	5.04	mg/L	0.033	0.66%
QC value within limits for Pb Recovery = 100.80%								
Tl†	15561.2	5.24	mg/L	0.023	5.24	mg/L	0.023	0.44%
QC value within limits for Tl Recovery = 104.74%								
V†	786477.7	4.87	mg/L	0.006	4.87	mg/L	0.006	0.13%
QC value within limits for V Recovery = 97.37%								
Zn†	259071.2	5.07	mg/L	0.005	5.07	mg/L	0.005	0.09%
QC value within limits for Zn Recovery = 101.42%								

All analyte(s) passed QC.

Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 8/13/2007 20:39:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	219.0 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.	Sample RSD
Sca	263623.8	102	%	0.4				0.39%
Yr	247041.8	94.8	%	2.85				3.01%
B_†	479.7	0.0182	mg/L	0.00101	0.0182	mg/L	0.00101	5.55%
QC value within limits for B_	Recovery = Not calculated							
Ba†	-6.7	-0.00008	mg/L	0.000068	-0.00008	mg/L	0.000068	82.77%
QC value within limits for Ba	Recovery = Not calculated							
Be†	59.3	0.00002	mg/L	0.000020	0.00002	mg/L	0.000020	111.08%
QC value within limits for Be	Recovery = Not calculated							
Ca†	35.5	0.00361	mg/L	0.001272	0.00361	mg/L	0.001272	35.24%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	7.3	0.00031	mg/L	0.000057	0.00031	mg/L	0.000057	18.30%
QC value within limits for Cd	Recovery = Not calculated							
Co†	-4.6	-0.00020	mg/L	0.000089	-0.00020	mg/L	0.000089	43.86%
QC value within limits for Co	Recovery = Not calculated							
Cr†	3.3	0.00005	mg/L	0.000221	0.00005	mg/L	0.000221	474.68%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	51.6	0.00012	mg/L	0.000208	0.00012	mg/L	0.000208	172.27%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	2.2	0.00123	mg/L	0.000261	0.00123	mg/L	0.000261	21.24%
QC value within limits for Fe	Recovery = Not calculated							
K†	17.6	0.0133	mg/L	0.01857	0.0133	mg/L	0.01857	140.07%
QC value within limits for K	Recovery = Not calculated							
Mg†	-0.3	-0.00007	mg/L	0.002011	-0.00007	mg/L	0.002011	>999.9%
QC value within limits for Mg	Recovery = Not calculated							
Mo†	9.6	0.00064	mg/L	0.000273	0.00064	mg/L	0.000273	42.55%
QC value within limits for Mo	Recovery = Not calculated							
Na†	553.6	0.164	mg/L	0.0072	0.164	mg/L	0.0072	4.40%
QC value within limits for Na	Recovery = Not calculated							
Ni†	-3.2	-0.00014	mg/L	0.000129	-0.00014	mg/L	0.000129	89.39%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	13.9	0.00259	mg/L	0.000141	0.00259	mg/L	0.000141	5.42%
QC value within limits for Pb	Recovery = Not calculated							
Tl†	5.0	0.00167	mg/L	0.000887	0.00167	mg/L	0.000887	52.95%
QC value within limits for Tl	Recovery = Not calculated							
V†	-35.8	-0.00022	mg/L	0.000189	-0.00022	mg/L	0.000189	85.86%
QC value within limits for V	Recovery = Not calculated							
Zn†	7.0	0.00014	mg/L	0.000113	0.00014	mg/L	0.000113	81.81%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 39
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 8/13/2007 21:25:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	219.0 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	250959.4	97.3	%	0.74				0.77%
Yr	240539.3	92.3	%	0.32				0.35%
B_†	62421.1	2.36	mg/L	0.004	2.36	mg/L	0.004	0.15%
QC value within limits for B_ Recovery = 94.37%								
Ba†	391862.3	4.79	mg/L	0.032	4.79	mg/L	0.032	0.68%
QC value within limits for Ba Recovery = 95.87%								
Be†	6261796.2	1.91	mg/L	0.016	1.91	mg/L	0.016	0.83%
QC value within limits for Be Recovery = 95.48%								
Ca†	512459.0	52.0	mg/L	0.12	52.0	mg/L	0.12	0.24%
QC value within limits for Ca Recovery = 104.07%								
Cd†	58695.5	2.53	mg/L	0.034	2.53	mg/L	0.034	1.34%
QC value within limits for Cd Recovery = 101.21%								
Co†	113876.7	5.02	mg/L	0.064	5.02	mg/L	0.064	1.28%
QC value within limits for Co Recovery = 100.46%								
Cr†	336698.7	4.80	mg/L	0.016	4.80	mg/L	0.016	0.33%
QC value within limits for Cr Recovery = 95.92%								
Cu†	1977556.8	4.63	mg/L	0.035	4.63	mg/L	0.035	0.77%
QC value within limits for Cu Recovery = 92.66%								
Fe†	9421.6	5.16	mg/L	0.012	5.16	mg/L	0.012	0.23%
QC value within limits for Fe Recovery = 103.14%								
K†	66466.9	50.2	mg/L	0.62	50.2	mg/L	0.62	1.24%
QC value within limits for K Recovery = 100.32%								
Mg†	215217.4	53.0	mg/L	0.09	53.0	mg/L	0.09	0.16%
QC value within limits for Mg Recovery = 105.95%								
Mo†	70836.2	4.75	mg/L	0.082	4.75	mg/L	0.082	1.72%
QC value within limits for Mo Recovery = 94.97%								
Na†	174994.9	52.0	mg/L	0.27	52.0	mg/L	0.27	0.53%
QC value within limits for Na Recovery = 104.00%								
Ni†	108897.5	5.00	mg/L	0.080	5.00	mg/L	0.080	1.60%
QC value within limits for Ni Recovery = 99.98%								
Pb†	26930.2	5.03	mg/L	0.090	5.03	mg/L	0.090	1.79%
QC value within limits for Pb Recovery = 100.67%								
Tl†	15488.1	5.21	mg/L	0.066	5.21	mg/L	0.066	1.27%
QC value within limits for Tl Recovery = 104.25%								
V†	773191.8	4.79	mg/L	0.018	4.79	mg/L	0.018	0.38%
QC value within limits for V Recovery = 95.72%								
Zn†	254872.8	4.99	mg/L	0.024	4.99	mg/L	0.024	0.49%
QC value within limits for Zn Recovery = 99.76%								

All analyte(s) passed QC.

Sequence No.: 40
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 8/13/2007 21:29:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	219.0 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	267268.4	104	%	0.5				0.50%
Yr	247462.2	94.9	%	0.01				0.01%
B_†	332.8	0.0126	mg/L	0.00031	0.0126	mg/L	0.00031	2.44%
QC value within limits for B_	Recovery = Not calculated							
Ba†	-4.7	-0.00006	mg/L	0.000013	-0.00006	mg/L	0.000013	22.32%
QC value within limits for Ba	Recovery = Not calculated							
Be†	82.2	0.00003	mg/L	0.000003	0.00003	mg/L	0.000003	10.64%
QC value within limits for Be	Recovery = Not calculated							
Ca†	37.3	0.00378	mg/L	0.000055	0.00378	mg/L	0.000055	1.45%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	1.1	0.00005	mg/L	0.000029	0.00005	mg/L	0.000029	62.17%
QC value within limits for Cd	Recovery = Not calculated							
Co†	2.0	0.00009	mg/L	0.000220	0.00009	mg/L	0.000220	250.00%
QC value within limits for Co	Recovery = Not calculated							
Cr†	156.1	0.00222	mg/L	0.000151	0.00222	mg/L	0.000151	6.77%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	-36.3	-0.00008	mg/L	0.000131	-0.00008	mg/L	0.000131	153.89%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	-2.2	-0.00122	mg/L	0.001379	-0.00122	mg/L	0.001379	113.36%
QC value within limits for Fe	Recovery = Not calculated							
K†	-26.5	-0.0200	mg/L	0.06398	-0.0200	mg/L	0.06398	320.26%
QC value within limits for K	Recovery = Not calculated							
Mg†	-0.0	0.00000	mg/L	0.000699	0.00000	mg/L	0.000699	>999.9%
QC value within limits for Mg	Recovery = Not calculated							
Mo†	12.2	0.00082	mg/L	0.000045	0.00082	mg/L	0.000045	5.54%
QC value within limits for Mo	Recovery = Not calculated							
Na†	358.1	0.106	mg/L	0.0090	0.106	mg/L	0.0090	8.44%
QC value within limits for Na	Recovery = Not calculated							
Ni†	-2.2	-0.00010	mg/L	0.000095	-0.00010	mg/L	0.000095	94.57%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	10.2	0.00190	mg/L	0.000472	0.00190	mg/L	0.000472	24.87%
QC value within limits for Pb	Recovery = Not calculated							
Tl†	2.4	0.00082	mg/L	0.000252	0.00082	mg/L	0.000252	30.84%
QC value within limits for Tl	Recovery = Not calculated							
V†	-3.8	-0.00001	mg/L	0.000096	-0.00001	mg/L	0.000096	883.78%
QC value within limits for V	Recovery = Not calculated							
Zn†	-5.5	-0.00011	mg/L	0.000092	-0.00011	mg/L	0.000092	84.39%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 41 **Autosampler Location:** 5
Sample ID: MCV **Date Collected:** 8/13/2007 21:32:33
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	219.0 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	257948.7	100	%	0.3				0.29%
Yr	243689.0	93.5	%	1.70				1.82%
B_†	30683.3	1.16	mg/L	0.001	1.16	mg/L	0.001	0.05%
QC value within limits for B_	Recovery = 92.78%							
Ba†	196193.4	2.40	mg/L	0.006	2.40	mg/L	0.006	0.25%
QC value within limits for Ba	Recovery = 96.00%							
Be†	3116016.1	0.950	mg/L	0.0023	0.950	mg/L	0.0023	0.25%
QC value within limits for Be	Recovery = 95.02%							
Ca†	257880.5	26.2	mg/L	0.07	26.2	mg/L	0.07	0.26%
QC value within limits for Ca	Recovery = 104.74%							
Cd†	28775.4	1.24	mg/L	0.008	1.24	mg/L	0.008	0.66%
QC value within limits for Cd	Recovery = 99.24%							
Co†	55834.1	2.46	mg/L	0.007	2.46	mg/L	0.007	0.26%
QC value within limits for Co	Recovery = 98.52%							
Cr†	167504.3	2.39	mg/L	0.003	2.39	mg/L	0.003	0.12%
QC value within limits for Cr	Recovery = 95.44%							
Cu†	972807.9	2.28	mg/L	0.001	2.28	mg/L	0.001	0.03%
QC value within limits for Cu	Recovery = 91.16%							
Fe†	4709.8	2.58	mg/L	0.044	2.58	mg/L	0.044	1.70%
QC value within limits for Fe	Recovery = 103.12%							
K†	32654.5	24.6	mg/L	0.20	24.6	mg/L	0.20	0.81%
QC value within limits for K	Recovery = 98.57%							
Mg†	108826.3	26.8	mg/L	0.00	26.8	mg/L	0.00	0.01%
QC value within limits for Mg	Recovery = 107.15%							
Mo†	34594.3	2.32	mg/L	0.008	2.32	mg/L	0.008	0.35%
QC value within limits for Mo	Recovery = 92.76%							
Na†	87369.0	26.0	mg/L	0.11	26.0	mg/L	0.11	0.43%
QC value within limits for Na	Recovery = 103.85%							
Ni†	54450.0	2.50	mg/L	0.008	2.50	mg/L	0.008	0.30%
QC value within limits for Ni	Recovery = 99.98%							
Pb†	13435.1	2.51	mg/L	0.007	2.51	mg/L	0.007	0.28%
QC value within limits for Pb	Recovery = 100.44%							
Tl†	7728.3	2.60	mg/L	0.002	2.60	mg/L	0.002	0.07%
QC value within limits for Tl	Recovery = 104.03%							
V†	383531.0	2.37	mg/L	0.004	2.37	mg/L	0.004	0.16%
QC value within limits for V	Recovery = 94.96%							
Zn†	127339.3	2.49	mg/L	0.006	2.49	mg/L	0.006	0.26%
QC value within limits for Zn	Recovery = 99.68%							

All analyte(s) passed QC.

Sequence No.: 48
Sample ID: 2708020317_2X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 62
Date Collected: 8/13/2007 22:02:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020317_2X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020317_2X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	254584.4	98.7	%	0.97				0.98%
Yr	242022.0	92.8	%	0.64				0.69%
B_t	20290.5	0.770	mg/L	0.0002	1.54	mg/L	0.000	0.03%
Bat	812.4	0.00994	mg/L	0.000172	0.0199	mg/L	0.00034	1.73%
Bet	-368.9	-0.00011	mg/L	0.000006	-0.00023	mg/L	0.000013	5.57%
Cat	786534.8	79.9	mg/L	0.70	160	mg/L	1.4	0.88%
Cdt	16.0	0.00068	mg/L	0.000084	0.00137	mg/L	0.000168	12.31%
Cot	-12.4	-0.00055	mg/L	0.000177	-0.00109	mg/L	0.000353	32.35%
Crt	564.1	0.00804	mg/L	0.000027	0.0161	mg/L	0.00005	0.33%
Cut	509.4	0.00119	mg/L	0.000054	0.00238	mg/L	0.000108	4.54%
Fet	168.8	0.0924	mg/L	0.00197	0.185	mg/L	0.0039	2.13%
Kt	7955.6	6.00	mg/L	0.050	12.0	mg/L	0.10	0.83%
Mgt	171451.5	42.2	mg/L	0.37	84.4	mg/L	0.74	0.87%
Mot	125.4	0.00841	mg/L	0.000170	0.0168	mg/L	0.00034	2.02%
Nat	605052.7	180	mg/L	0.1	360	mg/L	0.2	0.04%
Nit	-6.0	-0.00028	mg/L	0.000197	-0.00056	mg/L	0.000393	70.79%
Pbt	-11.5	-0.00215	mg/L	0.000372	-0.00431	mg/L	0.000745	17.28%
Tlt	30.8	0.0104	mg/L	0.00026	0.0208	mg/L	0.00053	2.53%
Vt	3042.3	0.0188	mg/L	0.00021	0.0375	mg/L	0.00043	1.14%
Znt	426.4	0.00840	mg/L	0.000214	0.0168	mg/L	0.00043	2.55%

Sequence No.: 49
Sample ID: 2708020319_5X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 63
Date Collected: 8/13/2007 22:06:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020319_5X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020319_5X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	252139.6	97.8	%	0.02				0.02%
Yr	240663.1	92.3	%	1.24				1.34%
B_t	35141.8	1.33	mg/L	0.004	6.67	mg/L	0.018	0.27%
Bat	595.4	0.00728	mg/L	0.000044	0.0364	mg/L	0.00022	0.61%
Bet	-1596.6	-0.00049	mg/L	0.000015	-0.00243	mg/L	0.000074	3.03%
Cat	1193410.6	121	mg/L	0.2	606	mg/L	1.1	0.18%
Cdt	-15.8	-0.00067	mg/L	0.000282	-0.00336	mg/L	0.001409	41.88%
Cot	9.1	0.00040	mg/L	0.000045	0.00200	mg/L	0.000227	11.32%
Crt	159451.4	2.27	mg/L	0.008	11.4	mg/L	0.04	0.37%
Cut	765.2	0.00179	mg/L	0.000157	0.00896	mg/L	0.000786	8.77%
Fet	51.0	0.0279	mg/L	0.00003	0.140	mg/L	0.0001	0.11%
Kt	6114.6	4.61	mg/L	0.051	23.1	mg/L	0.26	1.11%
Mgt	226144.5	55.7	mg/L	0.11	278	mg/L	0.5	0.19%
Mot	48.4	0.00325	mg/L	0.000460	0.0162	mg/L	0.00230	14.19%
Nat	1105309.7	328	mg/L	1.1	1640	mg/L	5.3	0.32%
Nit	-3.0	-0.00014	mg/L	0.000118	-0.00069	mg/L	0.000590	85.53%
Pbt	-14.9	-0.00278	mg/L	0.000471	-0.0139	mg/L	0.00236	16.97%
Tlt	44.4	0.0149	mg/L	0.00085	0.0745	mg/L	0.00423	5.67%
Vt	-470.3	0.00964	mg/L	0.000108	0.0482	mg/L	0.00054	1.12%
Znt	406.6	0.00801	mg/L	0.000275	0.0401	mg/L	0.00138	3.44%

Sequence No.: 50
Sample ID: 2708020318_2X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 64
Date Collected: 8/13/2007 22:11:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020318_2X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020318_2X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	248891.1	96.5	%	0.06				0.06%
Yr	237562.8	91.1	%	0.45				0.49%
B_t	67811.8	2.57	mg/L	0.012	5.15	mg/L	0.024	0.47%
Bat	1652.3	0.0202	mg/L	0.00018	0.0404	mg/L	0.00035	0.87%
Bet	-820.4	-0.00025	mg/L	0.000014	-0.00050	mg/L	0.000028	5.58%
Cat	1521834.2	155	mg/L	0.4	309	mg/L	0.8	0.24%
Cdt	42.8	0.00183	mg/L	0.000033	0.00366	mg/L	0.000066	1.82%
Cot	-11.4	-0.00050	mg/L	0.000063	-0.00101	mg/L	0.000125	12.48%
Crt	2136.7	0.0304	mg/L	0.00002	0.0609	mg/L	0.00003	0.05%
Cut	1266.7	0.00296	mg/L	0.000148	0.00593	mg/L	0.000297	5.00%
Fet	68.0	0.0372	mg/L	0.00033	0.0744	mg/L	0.00065	0.88%
Kt	12311.2	9.29	mg/L	0.089	18.6	mg/L	0.18	0.96%
Mgt	404706.5	99.6	mg/L	0.40	199	mg/L	0.8	0.40%
Mot	130.2	0.00873	mg/L	0.000114	0.0175	mg/L	0.00023	1.31%
Nat	1070945.6	318	mg/L	0.5	636	mg/L	1.0	0.15%
Nit	3.9	0.00018	mg/L	0.000225	0.00035	mg/L	0.000450	126.90%
Pbt	-7.4	-0.00139	mg/L	0.001374	-0.00278	mg/L	0.002749	98.93%
Tlt	40.0	0.0135	mg/L	0.00262	0.0270	mg/L	0.00524	19.40%
Vt	3135.2	0.0195	mg/L	0.00003	0.0389	mg/L	0.00007	0.17%
Znt	625.2	0.0123	mg/L	0.00011	0.0246	mg/L	0.00021	0.87%

Sequence No.: 51
Sample ID: MBLANK
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 65
Date Collected: 8/13/2007 22:15:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MBLANK

Analyte	Back Pressure	Flow
All	219.0 kPa	0.65 L/min

Mean Data: MBLANK

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	272091.5	106	%	0.1				0.05%
Yr	256622.2	98.4	%	1.32				1.34%
B_t	586.2	0.0223	mg/L	0.00049	0.0223	mg/L	0.00049	2.20%
Bat	-4.1	-0.00005	mg/L	0.000012	-0.00005	mg/L	0.000012	23.69%
Bet	2.0	0.00000	mg/L	0.000022	0.00000	mg/L	0.000022	>999.9%
Cat	277.1	0.0281	mg/L	0.00098	0.0281	mg/L	0.00098	3.47%
Cdt	-4.2	-0.00018	mg/L	0.000024	-0.00018	mg/L	0.000024	13.12%
Cot	-4.5	-0.00020	mg/L	0.000092	-0.00020	mg/L	0.000092	46.73%
Crt	49.2	0.00070	mg/L	0.000052	0.00070	mg/L	0.000052	7.49%
Cut	-134.5	-0.00031	mg/L	0.000012	-0.00031	mg/L	0.000012	3.71%
Fet	2.7	0.00148	mg/L	0.001573	0.00148	mg/L	0.001573	106.63%
Kt	-37.1	-0.0280	mg/L	0.05695	-0.0280	mg/L	0.05695	203.18%
Mgt	7.6	0.00186	mg/L	0.000032	0.00186	mg/L	0.000032	1.74%
Mot	-5.3	-0.00036	mg/L	0.000081	-0.00036	mg/L	0.000081	22.74%
Nat	1555.6	0.462	mg/L	0.0199	0.462	mg/L	0.0199	4.30%
Nit	-13.3	-0.00061	mg/L	0.000007	-0.00061	mg/L	0.000007	1.20%
Pbt	10.7	0.00200	mg/L	0.000165	0.00200	mg/L	0.000165	8.25%
Tlt	-4.0	-0.00135	mg/L	0.001537	-0.00135	mg/L	0.001537	113.95%
Vt	-34.7	-0.00021	mg/L	0.000041	-0.00021	mg/L	0.000041	19.75%
Znt	10.7	0.00022	mg/L	0.000133	0.00022	mg/L	0.000133	61.85%

Sequence No.: 52
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 8/13/2007 22:19:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	218.0 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	255497.5	99.1	%	1.19				1.20%
Yr	239926.8	92.0	%	1.11				1.21%
B_†	61863.0	2.34	mg/L	0.004	2.34	mg/L	0.004	0.17%
QC value within limits for B_	Recovery = 93.53%							
Ba†	385327.2	4.71	mg/L	0.008	4.71	mg/L	0.008	0.17%
QC value within limits for Ba	Recovery = 94.28%							
Be†	6173198.5	1.88	mg/L	0.024	1.88	mg/L	0.024	1.26%
QC value within limits for Be	Recovery = 94.13%							
Ca†	510116.8	51.8	mg/L	0.24	51.8	mg/L	0.24	0.45%
QC value within limits for Ca	Recovery = 103.60%							
Cd†	57565.9	2.48	mg/L	0.013	2.48	mg/L	0.013	0.51%
QC value within limits for Cd	Recovery = 99.26%							
Co†	111438.6	4.92	mg/L	0.016	4.92	mg/L	0.016	0.33%
QC value within limits for Co	Recovery = 98.31%							
Cr†	333813.3	4.75	mg/L	0.011	4.75	mg/L	0.011	0.23%
QC value within limits for Cr	Recovery = 95.10%							
Cu†	1942983.5	4.55	mg/L	0.006	4.55	mg/L	0.006	0.13%
QC value within limits for Cu	Recovery = 91.04%							
Fe†	9123.1	4.99	mg/L	0.059	4.99	mg/L	0.059	1.18%
QC value within limits for Fe	Recovery = 99.87%							
K†	64778.9	48.9	mg/L	0.94	48.9	mg/L	0.94	1.92%
QC value within limits for K	Recovery = 97.77%							
Mg†	216044.9	53.2	mg/L	0.21	53.2	mg/L	0.21	0.40%
QC value within limits for Mg	Recovery = 106.36%							
Mo†	68779.8	4.61	mg/L	0.017	4.61	mg/L	0.017	0.38%
QC value within limits for Mo	Recovery = 92.22%							
Na†	174707.8	51.9	mg/L	0.49	51.9	mg/L	0.49	0.94%
QC value within limits for Na	Recovery = 103.83%							
Ni†	105831.7	4.86	mg/L	0.021	4.86	mg/L	0.021	0.43%
QC value within limits for Ni	Recovery = 97.17%							
Pb†	26190.7	4.90	mg/L	0.012	4.90	mg/L	0.012	0.25%
QC value within limits for Pb	Recovery = 97.90%							
Tl†	15060.8	5.07	mg/L	0.011	5.07	mg/L	0.011	0.22%
QC value within limits for Tl	Recovery = 101.37%							
V†	765603.1	4.71	mg/L	0.006	4.74	mg/L	0.006	0.13%
QC value within limits for V	Recovery = 94.78%							
Zn†	251112.8	4.91	mg/L	0.010	4.91	mg/L	0.010	0.19%
QC value within limits for Zn	Recovery = 98.30%							

All analyte(s) passed QC.

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

Autosampler Location: 0
Date Collected: 8/13/2007 22:22:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	263714.6	102	%	1.2				1.14%
Yr	239977.5	92.0	%	0.74				0.80%
B_†	567.8	0.0216	mg/L	0.00031	0.0216	mg/L	0.00031	1.46%
QC value greater than the upper limit for B_ Recovery = Not calculated								
Ba†	-8.6	-0.00011	mg/L	0.000012	-0.00011	mg/L	0.000012	11.31%
QC value within limits for Ba Recovery = Not calculated								
Be†	-21.1	-0.00001	mg/L	0.000007	-0.00001	mg/L	0.000007	107.25%
QC value within limits for Be Recovery = Not calculated								
Ca†	24.5	0.00249	mg/L	0.000821	0.00249	mg/L	0.000821	32.99%
QC value within limits for Ca Recovery = Not calculated								
Cd†	-0.7	-0.00003	mg/L	0.000075	-0.00003	mg/L	0.000075	251.22%
QC value within limits for Cd Recovery = Not calculated								
Co†	-1.0	-0.00004	mg/L	0.000152	-0.00004	mg/L	0.000152	347.10%
QC value within limits for Co Recovery = Not calculated								
Cr†	73.7	0.00105	mg/L	0.000077	0.00105	mg/L	0.000077	7.33%
QC value within limits for Cr Recovery = Not calculated								
Cu†	-148.7	-0.00035	mg/L	0.000157	-0.00035	mg/L	0.000157	45.24%
QC value within limits for Cu Recovery = Not calculated								
Fe†	1.2	0.00068	mg/L	0.000603	0.00068	mg/L	0.000603	88.62%
QC value within limits for Fe Recovery = Not calculated								
K†	-36.8	-0.0278	mg/L	0.08694	-0.0278	mg/L	0.08694	313.19%
QC value within limits for K Recovery = Not calculated								
Mg†	-1.0	-0.00024	mg/L	0.000987	-0.00024	mg/L	0.000987	410.24%
QC value within limits for Mg Recovery = Not calculated								
Mo†	11.7	0.00079	mg/L	0.000383	0.00079	mg/L	0.000383	48.81%
QC value within limits for Mo Recovery = Not calculated								
Na†	702.7	0.209	mg/L	0.0283	0.209	mg/L	0.0283	13.55%
QC value within limits for Na Recovery = Not calculated								
Ni†	-3.8	-0.00017	mg/L	0.000145	-0.00017	mg/L	0.000145	82.97%
QC value within limits for Ni Recovery = Not calculated								
Pb†	6.6	0.00124	mg/L	0.000894	0.00124	mg/L	0.000894	72.29%
QC value within limits for Pb Recovery = Not calculated								
Tl†	-4.7	-0.00159	mg/L	0.000931	-0.00159	mg/L	0.000931	58.51%
QC value within limits for Tl Recovery = Not calculated								
V†	40.3	0.00025	mg/L	0.000013	0.00025	mg/L	0.000013	5.30%
QC value within limits for V Recovery = Not calculated								
Zn†	-10.5	-0.00021	mg/L	0.000112	-0.00021	mg/L	0.000112	54.32%
QC value within limits for Zn Recovery = Not calculated								

QC Failed. Retry.

Sequence No.: 54
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 8/13/2007 22:24:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	219.0 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	263110.2	102	%	2.0				1.99%
Yr	243202.1	93.3	%	0.73				0.78%
B_†	415.3	0.0158	mg/L	0.00007	0.0158	mg/L	0.00007	0.46%
QC value within limits for B_		Recovery = Not calculated						
Ba†	-14.3	-0.00017	mg/L	0.000057	-0.00017	mg/L	0.000057	32.94%
QC value within limits for Ba		Recovery = Not calculated						
Be†	43.6	0.00001	mg/L	0.000025	0.00001	mg/L	0.000025	187.82%
QC value within limits for Be		Recovery = Not calculated						
Ca†	2.8	0.00028	mg/L	0.000424	0.00028	mg/L	0.000424	150.58%
QC value within limits for Ca		Recovery = Not calculated						
Cd†	-0.6	-0.00003	mg/L	0.000006	-0.00003	mg/L	0.000006	21.55%
QC value within limits for Cd		Recovery = Not calculated						
Co†	-5.4	-0.00024	mg/L	0.000001	-0.00024	mg/L	0.000001	0.53%
QC value within limits for Co		Recovery = Not calculated						
Cr†	66.5	0.00095	mg/L	0.000081	0.00095	mg/L	0.000081	8.52%
QC value within limits for Cr		Recovery = Not calculated						
Cu†	-95.0	-0.00022	mg/L	0.000148	-0.00022	mg/L	0.000148	66.37%
QC value within limits for Cu		Recovery = Not calculated						
Fe†	-0.7	-0.00039	mg/L	0.000304	-0.00039	mg/L	0.000304	77.47%
QC value within limits for Fe		Recovery = Not calculated						
K†	-59.6	-0.0450	mg/L	0.00580	-0.0450	mg/L	0.00580	12.89%
QC value within limits for K		Recovery = Not calculated						
Mg†	3.6	0.00089	mg/L	0.000513	0.00089	mg/L	0.000513	57.73%
QC value within limits for Mg		Recovery = Not calculated						
Mo†	3.6	0.00024	mg/L	0.000002	0.00024	mg/L	0.000002	0.82%
QC value within limits for Mo		Recovery = Not calculated						
Na†	569.8	0.169	mg/L	0.0080	0.169	mg/L	0.0080	4.74%
QC value within limits for Na		Recovery = Not calculated						
Ni†	-7.3	-0.00033	mg/L	0.000405	-0.00033	mg/L	0.000405	121.02%
QC value within limits for Ni		Recovery = Not calculated						
Pb†	10.4	0.00195	mg/L	0.001244	0.00195	mg/L	0.001244	63.82%
QC value within limits for Pb		Recovery = Not calculated						
Tl†	3.7	0.00124	mg/L	0.001867	0.00124	mg/L	0.001867	150.59%
QC value within limits for Tl		Recovery = Not calculated						
V†	-53.3	-0.00032	mg/L	0.000224	-0.00032	mg/L	0.000224	69.52%
QC value within limits for V		Recovery = Not calculated						
Zn†	-15.0	-0.00029	mg/L	0.000110	-0.00029	mg/L	0.000110	37.37%
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: 8/13/2007 22:28:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCS

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: LCS

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	264996.0	103	%	0.2				0.20%
Yr	245285.8	94.1	%	1.67				1.77%
B_t	12443.2	0.470	mg/L	0.0021	0.470	mg/L	0.0021	0.45%
Bat	74830.4	0.915	mg/L	0.0033	0.915	mg/L	0.0033	0.36%
Bet	156464.8	0.0477	mg/L	0.00009	0.0477	mg/L	0.00009	0.19%
Cat	489841.2	49.7	mg/L	0.08	49.7	mg/L	0.08	0.16%
Cdt	4918.1	0.214	mg/L	0.0006	0.214	mg/L	0.0006	0.29%
Cot	21889.1	0.966	mg/L	0.0020	0.966	mg/L	0.0020	0.21%
Crt	65294.3	0.930	mg/L	0.0007	0.930	mg/L	0.0007	0.08%
Cut	391302.3	0.917	mg/L	0.0056	0.917	mg/L	0.0056	0.61%
Fet	9289.6	5.08	mg/L	0.107	5.08	mg/L	0.107	2.11%
Kt	25690.6	19.4	mg/L	0.54	19.4	mg/L	0.54	2.80%
Mgt	84657.6	20.8	mg/L	0.56	20.8	mg/L	0.56	2.66%
Mot	13451.6	0.902	mg/L	0.0002	0.902	mg/L	0.0002	0.02%
Nat	167611.9	49.8	mg/L	0.01	49.8	mg/L	0.01	0.02%
Nit	10322.2	0.474	mg/L	0.0008	0.474	mg/L	0.0008	0.18%
Pbt	5217.4	0.975	mg/L	0.0026	0.975	mg/L	0.0026	0.27%
Tlt	3007.2	1.01	mg/L	0.002	1.01	mg/L	0.002	0.16%
Vt	149310.1	0.924	mg/L	0.0012	0.924	mg/L	0.0012	0.13%
Znt	49981.5	0.982	mg/L	0.0035	0.982	mg/L	0.0035	0.36%

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

Autosampler Location: 67
Date Collected: 8/13/2007 22:31:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCSD

Analyte	Back Pressure	Flow
All	218.0 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	261723.2	101	%	0.4				0.35%
Yr	240493.3	92.2	%	0.25				0.27%
B_t	12161.4	0.460	mg/L	0.0020	0.460	mg/L	0.0020	0.43%
Bat	73529.3	0.899	mg/L	0.0057	0.899	mg/L	0.0057	0.63%
Bet	153512.9	0.0468	mg/L	0.00029	0.0468	mg/L	0.00029	0.62%
Cat	488655.3	49.6	mg/L	0.03	49.6	mg/L	0.03	0.07%
Cdt	4932.8	0.215	mg/L	0.0014	0.215	mg/L	0.0014	0.63%
Cot	21933.0	0.967	mg/L	0.0086	0.967	mg/L	0.0086	0.89%
Crt	63988.8	0.911	mg/L	0.0068	0.911	mg/L	0.0068	0.74%
Cut	386002.9	0.904	mg/L	0.0066	0.904	mg/L	0.0066	0.73%
Fet	9200.8	5.04	mg/L	0.067	5.04	mg/L	0.067	1.33%
Kt	25750.3	19.4	mg/L	0.29	19.4	mg/L	0.29	1.49%
Mgt	84367.7	20.8	mg/L	0.37	20.8	mg/L	0.37	1.79%
Mot	13462.3	0.902	mg/L	0.0066	0.902	mg/L	0.0066	0.73%
Nat	168201.3	50.0	mg/L	0.30	50.0	mg/L	0.30	0.60%
Nit	10315.7	0.474	mg/L	0.0040	0.474	mg/L	0.0040	0.83%
Pbt	5262.4	0.984	mg/L	0.0087	0.984	mg/L	0.0087	0.89%
Tlt	3036.1	1.02	mg/L	0.009	1.02	mg/L	0.009	0.87%
Vt	146019.1	0.904	mg/L	0.0059	0.904	mg/L	0.0059	0.66%
Znt	49080.3	0.964	mg/L	0.0070	0.964	mg/L	0.0070	0.73%

Sequence No.: 57
Sample ID: 2708020327_2X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 68
Date Collected: 8/13/2007 22:34:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020327_2X

Analyte	Back Pressure	Flow
All	219.0 kPa	0.65 L/min

Mean Data: 2708020327_2X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	241027.7	93.5	%	0.68				0.73%
Yr	231542.9	88.8	%	0.33				0.37%
B_t	55600.5	2.11	mg/L	0.007	4.22	mg/L	0.014	0.33%
Bat	591.9	0.00724	mg/L	0.000014	0.0145	mg/L	0.00003	0.19%
Bet	-1307.5	-0.00040	mg/L	0.000029	-0.00080	mg/L	0.000057	7.16%
Cat	2311569.3	235	mg/L	0.3	469	mg/L	0.6	0.14%
Cdt	27.5	0.00118	mg/L	0.000231	0.00236	mg/L	0.000462	19.59%
Cot	-2.6	-0.00011	mg/L	0.000100	-0.00023	mg/L	0.000200	88.06%
Crt	33973.4	0.484	mg/L	0.0015	0.968	mg/L	0.0030	0.31%
Cut	473.9	0.00111	mg/L	0.000111	0.00222	mg/L	0.000223	10.04%
Fet	7.9	0.00432	mg/L	0.002404	0.00864	mg/L	0.004808	55.64%
Kt	14223.3	10.7	mg/L	0.04	21.5	mg/L	0.07	0.33%
Mgt	545822.9	134	mg/L	0.1	269	mg/L	0.2	0.08%
Mot	458.4	0.0307	mg/L	0.00047	0.0615	mg/L	0.00093	1.52%
Nat	1535923.3	456	mg/L	0.1	913	mg/L	0.3	0.03%
Nit	1.4	0.00006	mg/L	0.000469	0.00013	mg/L	0.000938	736.60%
Pbt	-39.3	-0.00735	mg/L	0.000047	-0.0147	mg/L	0.00009	0.64%
Tlt	55.9	0.0188	mg/L	0.00101	0.0377	mg/L	0.00202	5.36%
Vt	3953.2	0.0270	mg/L	0.00027	0.0540	mg/L	0.00054	1.00%
Znt	326.4	0.00643	mg/L	0.000016	0.0129	mg/L	0.00003	0.25%

Sequence No.: 58
Sample ID: 2708020327_2XMS
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 69
Date Collected: 8/13/2007 22:38:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020327_2XMS

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020327_2XMS

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	239056.5	92.7	%	0.51				0.55%
Yr	235407.5	90.3	%	0.19				0.21%
B_t	62274.7	2.36	mg/L	0.005	4.73	mg/L	0.009	0.20%
Bat	37853.2	0.463	mg/L	0.0004	0.926	mg/L	0.0008	0.08%
Bet	75492.4	0.0230	mg/L	0.00003	0.0460	mg/L	0.00005	0.12%
Cat	2585423.8	263	mg/L	0.8	525	mg/L	1.6	0.31%
Cdt	2592.4	0.113	mg/L	0.0013	0.225	mg/L	0.0026	1.13%
Cot	10737.7	0.474	mg/L	0.0048	0.947	mg/L	0.0096	1.02%
Crt	66050.6	0.941	mg/L	0.0017	1.88	mg/L	0.003	0.18%
Cut	201255.4	0.471	mg/L	0.0019	0.943	mg/L	0.0039	0.41%
Fet	4580.3	2.51	mg/L	0.013	5.01	mg/L	0.027	0.53%
Kt	28293.0	21.4	mg/L	0.14	42.7	mg/L	0.29	0.67%
Mgt	594567.3	146	mg/L	0.2	293	mg/L	0.3	0.11%
Mot	7225.1	0.484	mg/L	0.0052	0.969	mg/L	0.0104	1.07%
Nat	1654723.8	492	mg/L	1.0	983	mg/L	2.0	0.21%
Nit	5006.3	0.230	mg/L	0.0016	0.460	mg/L	0.0032	0.71%
Pbt	2485.1	0.464	mg/L	0.0053	0.929	mg/L	0.0106	1.14%
Tlt	1452.1	0.489	mg/L	0.0023	0.978	mg/L	0.0047	0.48%
Vt	78545.1	0.489	mg/L	0.0004	0.977	mg/L	0.0008	0.08%
Znt	25565.9	0.502	mg/L	0.0052	1.00	mg/L	0.010	1.04%

Sequence No.: 59
Sample ID: 2708020327_2XMSD
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 70
Date Collected: 8/13/2007 22:42:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020327_2XMSD

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020327_2XMSD

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	238310.0	92.4	%	1.14				1.24%
Yr	234523.9	90.0	%	0.06				0.07%
B_t	61632.9	2.34	mg/L	0.008	4.68	mg/L	0.017	0.36%
Bat	37354.6	0.457	mg/L	0.0013	0.914	mg/L	0.0026	0.29%
Bet	74572.0	0.0227	mg/L	0.00005	0.0455	mg/L	0.00009	0.20%
Cat	2549597.2	259	mg/L	0.1	518	mg/L	0.3	0.05%
Cdt	2572.6	0.112	mg/L	0.0012	0.224	mg/L	0.0023	1.03%
Cot	10618.0	0.468	mg/L	0.0052	0.937	mg/L	0.0104	1.11%
Crt	65380.2	0.931	mg/L	0.0005	1.86	mg/L	0.001	0.05%
Cut	199147.7	0.467	mg/L	0.0013	0.933	mg/L	0.0027	0.29%
Fet	4555.8	2.49	mg/L	0.042	4.99	mg/L	0.083	1.67%
Kt	28039.9	21.2	mg/L	0.35	42.3	mg/L	0.71	1.68%
Mgt	586302.0	144	mg/L	0.1	289	mg/L	0.2	0.06%
Mot	7155.7	0.480	mg/L	0.0068	0.959	mg/L	0.0136	1.42%
Nat	1620502.7	482	mg/L	0.4	963	mg/L	0.8	0.08%
Nit	4962.3	0.228	mg/L	0.0033	0.456	mg/L	0.0066	1.45%
Pbt	2465.2	0.461	mg/L	0.0054	0.921	mg/L	0.0108	1.17%
Tlt	1448.1	0.487	mg/L	0.0036	0.975	mg/L	0.0071	0.73%
Vt	77770.3	0.484	mg/L	0.0006	0.968	mg/L	0.0012	0.13%
Znt	25323.3	0.497	mg/L	0.0065	0.995	mg/L	0.0130	1.31%

Sequence No.: 60
Sample ID: 2708020332_20X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 20X

Autosampler Location: 71
Date Collected: 8/13/2007 22:46:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020332_20X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020332_20X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	263791.1	102	%	1.1				1.09%
Yr	238860.0	91.6	%	0.03				0.03%
B_t	14658.5	0.556	mg/L	0.0002	11.1	mg/L	0.00	0.03%
Bat	176.4	0.00216	mg/L	0.000031	0.0432	mg/L	0.00062	1.44%
Bet	-781.6	-0.00024	mg/L	0.000024	-0.00477	mg/L	0.000474	9.95%
Cat	454755.7	46.2	mg/L	0.34	924	mg/L	6.9	0.75%
Cdt	-20.6	-0.00088	mg/L	0.000050	-0.0177	mg/L	0.00101	5.70%
Cot	1.2	0.00005	mg/L	0.000213	0.00107	mg/L	0.004267	397.17%
Crt	74073.2	1.06	mg/L	0.002	21.1	mg/L	0.03	0.16%
Cut	-7.4	-0.00002	mg/L	0.000053	-0.00035	mg/L	0.001059	305.20%
Fet	4.4	0.00243	mg/L	0.001320	0.0486	mg/L	0.02640	54.32%
Kt	4301.8	3.25	mg/L	0.000	64.9	mg/L	0.01	0.01%
Mgt	106394.3	26.2	mg/L	0.18	524	mg/L	3.6	0.69%
Mot	26.8	0.00180	mg/L	0.000068	0.0359	mg/L	0.00136	3.78%
Nat	321155.7	95.4	mg/L	0.69	1910	mg/L	13.9	0.73%
Nit	-0.9	-0.00004	mg/L	0.000173	-0.00082	mg/L	0.003470	420.81%
Pbt	-12.6	-0.00236	mg/L	0.000118	-0.0471	mg/L	0.00236	5.00%
Tlt	26.9	0.00903	mg/L	0.001706	0.181	mg/L	0.0341	18.90%
Vt	-432.3	0.00316	mg/L	0.000104	0.0632	mg/L	0.00207	3.27%
Znt	227.2	0.00448	mg/L	0.000119	0.0895	mg/L	0.00238	2.65%

Sequence No.: 61
Sample ID: 2708020332_20XMS
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 20X

Autosampler Location: 72
Date Collected: 8/13/2007 22:50:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020332_20XMS

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020332_20XMS

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	262239.1	102	%	2.0				1.97%
Yr	242720.5	93.1	%	0.93				0.99%
B_t	14564.2	0.553	mg/L	0.0035	11.1	mg/L	0.07	0.63%
Bat	3824.5	0.0468	mg/L	0.00086	0.936	mg/L	0.0171	1.83%
Bet	6926.3	0.00211	mg/L	0.000005	0.0422	mg/L	0.00011	0.26%
Cat	458178.9	46.5	mg/L	0.00	930	mg/L	0.1	0.01%
Cdt	220.6	0.00962	mg/L	0.000017	0.192	mg/L	0.0003	0.18%
Cot	1074.4	0.0474	mg/L	0.00076	0.948	mg/L	0.0151	1.60%
Crt	74769.3	1.07	mg/L	0.006	21.3	mg/L	0.11	0.52%
Cut	18707.7	0.0438	mg/L	0.00023	0.877	mg/L	0.0047	0.53%
Fet	461.3	0.253	mg/L	0.0031	5.05	mg/L	0.062	1.23%
Kt	5428.1	4.10	mg/L	0.040	81.9	mg/L	0.81	0.99%
Mgt	105471.3	26.0	mg/L	0.03	519	mg/L	0.5	0.10%
Mot	687.1	0.0461	mg/L	0.00128	0.921	mg/L	0.0256	2.78%
Nat	315375.8	93.7	mg/L	0.29	1870	mg/L	5.9	0.31%
Nit	494.2	0.0227	mg/L	0.00043	0.454	mg/L	0.0086	1.89%
Pbt	247.9	0.0463	mg/L	0.00169	0.927	mg/L	0.0338	3.65%
Tlt	172.1	0.0579	mg/L	0.00241	1.16	mg/L	0.048	4.16%
Vt	6813.2	0.0478	mg/L	0.00029	0.956	mg/L	0.0058	0.60%
Znt	2636.9	0.0518	mg/L	0.00135	1.04	mg/L	0.027	2.61%

Sequence No.: 62
Sample ID: 2708020332_20XMSD
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 20X

Autosampler Location: 73
Date Collected: 8/13/2007 22:55:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020332_20XMSD

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020332_20XMSD

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	262040.9	102	%	2.3				2.22%
Yr	242536.0	93.0	%	1.21				1.30%
B_t	14890.3	0.565	mg/L	0.0026	11.3	mg/L	0.05	0.46%
Bat	3937.6	0.0482	mg/L	0.00128	0.963	mg/L	0.0256	2.66%
Bet	7171.3	0.00219	mg/L	0.000018	0.0437	mg/L	0.00036	0.82%
Cat	470576.8	47.8	mg/L	0.16	956	mg/L	3.2	0.34%
Cdt	226.2	0.00986	mg/L	0.000395	0.197	mg/L	0.0079	4.00%
Cot	1102.2	0.0486	mg/L	0.00149	0.972	mg/L	0.0298	3.07%
Crt	77096.5	1.10	mg/L	0.006	22.0	mg/L	0.12	0.53%
Cut	19653.7	0.0460	mg/L	0.00013	0.921	mg/L	0.0025	0.27%
Fet	469.5	0.257	mg/L	0.0043	5.14	mg/L	0.086	1.68%
Kt	5473.4	4.13	mg/L	0.095	82.6	mg/L	1.90	2.30%
Mgt	108063.4	26.6	mg/L	0.09	532	mg/L	1.7	0.33%
Mot	713.7	0.0478	mg/L	0.00172	0.957	mg/L	0.0345	3.60%
Nat	322542.6	95.8	mg/L	0.03	1920	mg/L	0.6	0.03%
Nit	510.7	0.0234	mg/L	0.00104	0.469	mg/L	0.0207	4.42%
Pbt	259.3	0.0485	mg/L	0.00082	0.969	mg/L	0.0165	1.70%
Tlt	175.0	0.0589	mg/L	0.00129	1.18	mg/L	0.026	2.18%
Vt	7060.3	0.0495	mg/L	0.00012	0.990	mg/L	0.0024	0.25%
Znt	2707.5	0.0532	mg/L	0.00129	1.06	mg/L	0.026	2.42%

Sequence No.: 63
Sample ID: 2708020320_20X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 20X

Autosampler Location: 74
Date Collected: 8/13/2007 22:59:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020320_20X

Analyte	Back Pressure	Flow
All	219.0 kPa	0.65 L/min

Mean Data: 2708020320_20X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	262113.8	102	%	2.0				1.99%
Yr	235332.8	90.3	%	2.93				3.25%
B_t	3770.2	0.143	mg/L	0.0003	2.86	mg/L	0.005	0.18%
Bat	173.6	0.00212	mg/L	0.000042	0.0425	mg/L	0.00085	2.00%
Bet	-904.7	-0.00028	mg/L	0.000012	-0.00552	mg/L	0.000233	4.22%
Cat	267768.3	27.2	mg/L	0.03	544	mg/L	0.5	0.10%
Cdt	-12.0	-0.00051	mg/L	0.000174	-0.0102	mg/L	0.00348	33.96%
Cot	12.0	0.00053	mg/L	0.000277	0.0106	mg/L	0.00554	52.20%
Crt	103344.6	1.47	mg/L	0.002	29.4	mg/L	0.05	0.16%
Cut	-36.9	-0.00009	mg/L	0.000118	-0.00172	mg/L	0.002358	137.39%
Fet	93.2	0.0510	mg/L	0.00089	1.02	mg/L	0.018	1.74%
Kt	2330.0	1.76	mg/L	0.039	35.2	mg/L	0.78	2.23%
Mgt	59479.1	14.6	mg/L	0.43	293	mg/L	8.5	2.92%
Mot	31.5	0.00211	mg/L	0.000165	0.0423	mg/L	0.00330	7.80%
Nat	499487.0	148	mg/L	0.3	2970	mg/L	5.8	0.20%
Nit	-1.0	-0.00005	mg/L	0.000236	-0.00091	mg/L	0.004726	519.85%
Pbt	-1.2	-0.00022	mg/L	0.000735	-0.00433	mg/L	0.014707	339.79%
Tlt	12.6	0.00423	mg/L	0.001986	0.0846	mg/L	0.03972	46.95%
Vt	-959.4	0.00222	mg/L	0.000090	0.0443	mg/L	0.00180	4.05%
Znt	115.6	0.00228	mg/L	0.000020	0.0456	mg/L	0.00041	0.90%

Sequence No.: 64
Sample ID: 2708020321_20X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 20X

Autosampler Location: 75
Date Collected: 8/13/2007 23:03:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020321_20X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020321_20X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	259618.8	101	%	1.2				1.21%
Yr	235422.3	90.3	%	0.44				0.49%
B_†	10494.7	0.398	mg/L	0.0001	7.97	mg/L	0.001	0.01%
Ba†	129.2	0.00158	mg/L	0.000069	0.0316	mg/L	0.00139	4.39%
Be†	-593.4	-0.00018	mg/L	0.000019	-0.00362	mg/L	0.000372	10.27%
Ca†	372289.5	37.8	mg/L	0.04	756	mg/L	0.8	0.11%
Cd†	-18.9	-0.00081	mg/L	0.000000	-0.0162	mg/L	0.00001	0.04%
Co†	-0.6	-0.00003	mg/L	0.000218	-0.00056	mg/L	0.004355	779.29%
Cr†	55917.2	0.796	mg/L	0.0001	15.9	mg/L	0.00	0.01%
Cu†	93.5	0.00022	mg/L	0.000125	0.00438	mg/L	0.002509	57.33%
Fe†	-1.3	-0.00073	mg/L	0.000936	-0.0146	mg/L	0.01873	128.12%
K†	2883.5	2.18	mg/L	0.032	43.5	mg/L	0.64	1.47%
Mg†	79644.1	19.6	mg/L	0.06	392	mg/L	1.1	0.28%
Mo†	28.7	0.00193	mg/L	0.000463	0.0385	mg/L	0.00927	24.06%
Na†	288004.7	85.6	mg/L	0.01	1710	mg/L	0.3	0.02%
Ni†	-6.8	-0.00031	mg/L	0.000511	-0.00628	mg/L	0.010224	162.77%
Pb†	-7.1	-0.00132	mg/L	0.000221	-0.0264	mg/L	0.00442	16.72%
Tl†	22.0	0.00737	mg/L	0.000336	0.147	mg/L	0.0067	4.56%
V†	-199.3	0.00317	mg/L	0.000056	0.0634	mg/L	0.00111	1.75%
Zn†	118.2	0.00233	mg/L	0.000108	0.0466	mg/L	0.00216	4.63%

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

Autosampler Location: 4
Date Collected: 8/13/2007 23:08:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	218.0 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	255060.2	98.9	%	2.25				2.27%
Yr	238126.6	91.3	%	0.83				0.91%
B_†	61303.3	2.32	mg/L	0.001	2.32	mg/L	0.001	0.03%
QC value within limits for B_	Recovery = 92.68%							
Ba†	384419.9	4.70	mg/L	0.025	4.70	mg/L	0.025	0.53%
QC value within limits for Ba	Recovery = 94.05%							
Be†	6159058.1	1.88	mg/L	0.025	1.88	mg/L	0.025	1.32%
QC value within limits for Be	Recovery = 93.91%							
Ca†	511362.4	51.9	mg/L	0.02	51.9	mg/L	0.02	0.05%
QC value within limits for Ca	Recovery = 103.85%							
Cd†	57680.7	2.49	mg/L	0.045	2.49	mg/L	0.045	1.80%
QC value within limits for Cd	Recovery = 99.46%							
Co†	111920.3	4.94	mg/L	0.077	4.94	mg/L	0.077	1.56%
QC value within limits for Co	Recovery = 98.74%							
Cr†	332241.9	4.73	mg/L	0.020	4.73	mg/L	0.020	0.42%
QC value within limits for Cr	Recovery = 94.65%							
Cu†	1928918.5	4.52	mg/L	0.005	4.52	mg/L	0.005	0.11%
QC value within limits for Cu	Recovery = 90.38%							
Fe†	9289.4	5.08	mg/L	0.014	5.08	mg/L	0.014	0.27%
QC value within limits for Fe	Recovery = 101.70%							
K†	66050.3	49.8	mg/L	0.25	49.8	mg/L	0.25	0.49%
QC value within limits for K	Recovery = 99.69%							
Mg†	216989.8	53.4	mg/L	0.06	53.4	mg/L	0.06	0.12%
QC value within limits for Mg	Recovery = 106.82%							
Mo†	68978.9	4.62	mg/L	0.078	4.62	mg/L	0.078	1.68%
QC value within limits for Mo	Recovery = 92.48%							
Na†	173366.4	51.5	mg/L	0.15	51.5	mg/L	0.15	0.29%
QC value within limits for Na	Recovery = 103.03%							
Ni†	106118.6	4.87	mg/L	0.077	4.87	mg/L	0.077	1.58%
QC value within limits for Ni	Recovery = 97.43%							
Pb†	26236.5	4.90	mg/L	0.085	4.90	mg/L	0.085	1.74%
QC value within limits for Pb	Recovery = 98.07%							
Tl†	15094.8	5.08	mg/L	0.100	5.08	mg/L	0.100	1.96%
QC value within limits for Tl	Recovery = 101.60%							
V†	761801.9	4.72	mg/L	0.017	4.72	mg/L	0.017	0.35%
QC value within limits for V	Recovery = 94.31%							
Zn†	250101.9	4.89	mg/L	0.016	4.89	mg/L	0.016	0.33%
QC value within limits for Zn	Recovery = 97.90%							

All analyte(s) passed QC.

Sequence No.: 66
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 8/13/2007 23:11:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	267376.9	104	%	0.4				0.41%
Yr	239780.1	92.0	%	1.15				1.25%
B_†	436.4	0.0166	mg/L	0.00066	0.0166	mg/L	0.00066	3.98%
QC value within limits for B_	Recovery = Not calculated							
Ba†	-10.0	-0.00012	mg/L	0.000022	-0.00012	mg/L	0.000022	17.71%
QC value within limits for Ba	Recovery = Not calculated							
Be†	-33.9	-0.00001	mg/L	0.000025	-0.00001	mg/L	0.000025	237.29%
QC value within limits for Be	Recovery = Not calculated							
Ca†	31.8	0.00323	mg/L	0.001265	0.00323	mg/L	0.001265	39.19%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	0.7	0.00003	mg/L	0.000191	0.00003	mg/L	0.000191	611.25%
QC value within limits for Cd	Recovery = Not calculated							
Co†	-3.9	-0.00017	mg/L	0.000202	-0.00017	mg/L	0.000202	117.61%
QC value within limits for Co	Recovery = Not calculated							
Cr†	154.4	0.00220	mg/L	0.000126	0.00220	mg/L	0.000126	5.73%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	-35.2	-0.00008	mg/L	0.000222	-0.00008	mg/L	0.000222	268.75%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	-2.3	-0.00124	mg/L	0.000848	-0.00124	mg/L	0.000848	68.32%
QC value within limits for Fe	Recovery = Not calculated							
K†	-56.1	-0.0423	mg/L	0.02832	-0.0423	mg/L	0.02832	66.90%
QC value within limits for K	Recovery = Not calculated							
Mg†	-0.0	-0.00001	mg/L	0.000170	-0.00001	mg/L	0.000170	>999.9%
QC value within limits for Mg	Recovery = Not calculated							
Mo†	12.6	0.00085	mg/L	0.000218	0.00085	mg/L	0.000218	25.75%
QC value within limits for Mo	Recovery = Not calculated							
Na†	538.7	0.160	mg/L	0.0011	0.160	mg/L	0.0011	0.68%
QC value within limits for Na	Recovery = Not calculated							
Ni†	-5.1	-0.00023	mg/L	0.000302	-0.00023	mg/L	0.000302	129.34%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	5.8	0.00108	mg/L	0.000262	0.00108	mg/L	0.000262	24.21%
QC value within limits for Pb	Recovery = Not calculated							
Tl†	2.2	0.00073	mg/L	0.000805	0.00073	mg/L	0.000805	110.18%
QC value within limits for Tl	Recovery = Not calculated							
V†	-7.8	-0.00004	mg/L	0.000332	-0.00004	mg/L	0.000332	930.84%
QC value within limits for V	Recovery = Not calculated							
Zn†	-7.9	-0.00015	mg/L	0.000019	-0.00015	mg/L	0.000019	12.31%
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: 8/13/2007 23:14:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	218.0 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	265143.1	103	%	0.7				0.67%
Yr	240774.4	92.4	%	0.25				0.27%
B_†	30337.9	1.15	mg/L	0.000	1.15	mg/L	0.000	0.01%
QC value within limits for B_ Recovery = 91.73%								
Ba†	193030.8	2.36	mg/L	0.007	2.36	mg/L	0.007	0.29%
QC value within limits for Ba Recovery = 94.46%								
Be†	3055934.9	0.932	mg/L	0.0018	0.932	mg/L	0.0018	0.19%
QC value within limits for Be Recovery = 93.19%								
Ca†	258177.9	26.2	mg/L	0.04	26.2	mg/L	0.04	0.15%
QC value within limits for Ca Recovery = 104.86%								
Cd†	28695.6	1.24	mg/L	0.001	1.24	mg/L	0.001	0.09%
QC value within limits for Cd Recovery = 98.96%								
Co†	55554.3	2.45	mg/L	0.007	2.45	mg/L	0.007	0.28%
QC value within limits for Co Recovery = 98.02%								
Cr†	165594.2	2.36	mg/L	0.005	2.36	mg/L	0.005	0.20%
QC value within limits for Cr Recovery = 94.35%								
Cu†	954512.5	2.24	mg/L	0.013	2.24	mg/L	0.013	0.57%
QC value less than the lower limit for Cu Recovery = 89.45%								
Fe†	4713.7	2.58	mg/L	0.025	2.58	mg/L	0.025	0.97%
QC value within limits for Fe Recovery = 103.21%								
K†	32831.4	24.8	mg/L	0.07	24.8	mg/L	0.07	0.28%
QC value within limits for K Recovery = 99.11%								
Mg†	110042.9	27.1	mg/L	0.04	27.1	mg/L	0.04	0.13%
QC value within limits for Mg Recovery = 108.35%								
Mo†	33949.6	2.28	mg/L	0.001	2.28	mg/L	0.001	0.07%
QC value within limits for Mo Recovery = 91.04%								
Na†	87123.8	25.9	mg/L	0.16	25.9	mg/L	0.16	0.63%
QC value within limits for Na Recovery = 103.56%								
Ni†	53627.2	2.46	mg/L	0.004	2.46	mg/L	0.004	0.18%
QC value within limits for Ni Recovery = 98.47%								
Pb†	13144.2	2.46	mg/L	0.006	2.46	mg/L	0.006	0.25%
QC value within limits for Pb Recovery = 98.27%								
Tl†	7622.0	2.57	mg/L	0.005	2.57	mg/L	0.005	0.21%
QC value within limits for Tl Recovery = 102.60%								
V†	378320.9	2.34	mg/L	0.002	2.34	mg/L	0.002	0.10%
QC value within limits for V Recovery = 93.68%								
Zn†	125530.1	2.46	mg/L	0.007	2.46	mg/L	0.007	0.27%
QC value within limits for Zn Recovery = 98.27%								

QC Failed. Retry.

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

Autosampler Location: 5
Date Collected: 8/13/2007 23:16:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	218.0 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	260760.4	101	%	0.9				0.91%
Yr	242020.1	92.8	%	0.56				0.60%
B_†	30642.8	1.16	mg/L	0.005	1.16	mg/L	0.005	0.47%
QC value within limits for B_ Recovery = 92.66%								
Ba†	193983.8	2.37	mg/L	0.008	2.37	mg/L	0.008	0.35%
QC value within limits for Ba Recovery = 94.92%								
Be†	3063766.1	0.934	mg/L	0.0039	0.934	mg/L	0.0039	0.41%
QC value within limits for Be Recovery = 93.43%								
Ca†	258980.5	26.3	mg/L	0.00	26.3	mg/L	0.00	0.01%
QC value within limits for Ca Recovery = 105.19%								
Cd†	28810.0	1.24	mg/L	0.030	1.24	mg/L	0.030	2.38%
QC value within limits for Cd Recovery = 99.35%								
Co†	55639.1	2.45	mg/L	0.007	2.45	mg/L	0.007	0.29%
QC value within limits for Co Recovery = 98.17%								
Cr†	165824.8	2.36	mg/L	0.013	2.36	mg/L	0.013	0.54%
QC value within limits for Cr Recovery = 94.48%								
Cu†	957249.2	2.24	mg/L	0.002	2.24	mg/L	0.002	0.07%
QC value less than the lower limit for Cu Recovery = 89.70%								
Fe†	4828.8	2.64	mg/L	0.002	2.64	mg/L	0.002	0.08%
QC value within limits for Fe Recovery = 105.73%								
K†	33740.5	25.5	mg/L	0.10	25.5	mg/L	0.10	0.41%
QC value within limits for K Recovery = 101.85%								
Mg†	110394.1	27.2	mg/L	0.03	27.2	mg/L	0.03	0.11%
QC value within limits for Mg Recovery = 108.69%								
Mo†	34154.9	2.29	mg/L	0.046	2.29	mg/L	0.046	2.03%
QC value within limits for Mo Recovery = 91.59%								
Na†	86965.2	25.8	mg/L	0.08	25.8	mg/L	0.08	0.29%
QC value within limits for Na Recovery = 103.37%								
Ni†	53807.3	2.47	mg/L	0.055	2.47	mg/L	0.055	2.22%
QC value within limits for Ni Recovery = 98.80%								
Pb†	13239.8	2.47	mg/L	0.049	2.47	mg/L	0.049	1.98%
QC value within limits for Pb Recovery = 98.98%								
Tl†	7630.8	2.57	mg/L	0.038	2.57	mg/L	0.038	1.49%
QC value within limits for Tl Recovery = 102.72%								
V†	379103.6	2.35	mg/L	0.010	2.35	mg/L	0.010	0.43%
QC value within limits for V Recovery = 93.87%								
Zn†	126264.2	2.47	mg/L	0.009	2.47	mg/L	0.009	0.36%
QC value within limits for Zn Recovery = 98.84%								

QC Failed. Continue with analysis.

Sequence No.: 69
Sample ID: 2708020322_10X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 10X

Autosampler Location: 76
Date Collected: 8/13/2007 23:19:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020322_10X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020322_10X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	258164.8	100	%	1.0				1.00%
Yr	237745.6	91.2	%	0.50				0.55%
B_t	52161.7	1.98	mg/L	0.000	19.8	mg/L	0.00	0.00%
Bat	241.7	0.00296	mg/L	0.000040	0.0296	mg/L	0.00040	1.35%
Bet	-746.9	-0.00023	mg/L	0.000005	-0.00228	mg/L	0.000049	2.15%
Cat	391554.8	39.8	mg/L	0.23	398	mg/L	2.3	0.57%
Cdt	-14.7	-0.00063	mg/L	0.000157	-0.00630	mg/L	0.001565	24.83%
Cot	2.6	0.00011	mg/L	0.000069	0.00113	mg/L	0.000688	61.07%
Crt	66333.2	0.945	mg/L	0.0005	9.45	mg/L	0.005	0.06%
Cut	174.9	0.00041	mg/L	0.000184	0.00409	mg/L	0.001841	44.95%
Fet	-1.8	-0.00099	mg/L	0.000105	-0.00989	mg/L	0.001049	10.61%
Kt	10884.2	8.21	mg/L	0.041	82.1	mg/L	0.41	0.49%
Mgt	103426.6	25.5	mg/L	0.35	255	mg/L	3.5	1.38%
Mot	89.4	0.00599	mg/L	0.000501	0.0599	mg/L	0.00501	8.35%
Nat	440544.5	131	mg/L	0.4	1310	mg/L	4.1	0.31%
Nit	-2.3	-0.00010	mg/L	0.000026	-0.00104	mg/L	0.000263	25.23%
Pbt	-7.2	-0.00134	mg/L	0.001093	-0.0134	mg/L	0.01093	81.46%
Tlt	24.0	0.00806	mg/L	0.000643	0.0806	mg/L	0.00643	7.98%
Vt	55.3	0.00555	mg/L	0.000048	0.0555	mg/L	0.00048	0.86%
Znt	97.2	0.00192	mg/L	0.000200	0.0192	mg/L	0.00200	10.46%

Sequence No.: 70
Sample ID: 2708020323_2X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 77
Date Collected: 8/13/2007 23:24:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020323_2X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020323_2X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	248057.1	96.2	%	1.24				1.29%
Yr	237349.0	91.0	%	0.83				0.91%
B_t	16701.9	0.634	mg/L	0.0044	1.27	mg/L	0.009	0.70%
Bat	1043.2	0.0128	mg/L	0.00012	0.0255	mg/L	0.00024	0.94%
Bet	-902.3	-0.00028	mg/L	0.000002	-0.00055	mg/L	0.000004	0.69%
Cat	1510046.4	153	mg/L	0.3	307	mg/L	0.6	0.21%
Cdt	31.9	0.00138	mg/L	0.000062	0.00275	mg/L	0.000124	4.51%
Cot	73.1	0.00323	mg/L	0.000278	0.00645	mg/L	0.000556	8.61%
Crt	13384.9	0.191	mg/L	0.0011	0.381	mg/L	0.0023	0.60%
Cut	623.8	0.00146	mg/L	0.000116	0.00293	mg/L	0.000233	7.95%
Fet	27.6	0.0151	mg/L	0.00073	0.0302	mg/L	0.00146	4.83%
Kt	7208.3	5.44	mg/L	0.083	10.9	mg/L	0.17	1.53%
Mgt	320630.7	78.9	mg/L	0.18	158	mg/L	0.4	0.22%
Mot	1207.2	0.0809	mg/L	0.00100	0.162	mg/L	0.0020	1.23%
Nat	1890109.5	562	mg/L	0.4	1120	mg/L	0.7	0.06%
Nit	51.0	0.00234	mg/L	0.000528	0.00468	mg/L	0.001057	22.59%
Pbt	-33.1	-0.00619	mg/L	0.001471	-0.0124	mg/L	0.00294	23.78%
Tlt	57.7	0.0194	mg/L	0.00301	0.0388	mg/L	0.00602	15.50%
Vt	3613.4	0.0233	mg/L	0.00006	0.0466	mg/L	0.00012	0.25%
Znt	451.2	0.00887	mg/L	0.000109	0.0177	mg/L	0.00022	1.23%

Sequence No.: 71
Sample ID: 2708020324_5X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 78
Date Collected: 8/13/2007 23:28:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020324_5X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020324_5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	254317.5	98.6	%	1.34				1.35%
Yr	232480.1	89.2	%	0.74				0.83%
B_t	53135.3	2.02	mg/L	0.002	10.1	mg/L	0.01	0.10%
Bat	255.6	0.00313	mg/L	0.000115	0.0156	mg/L	0.00058	3.69%
Bet	-1021.6	-0.00031	mg/L	0.000036	-0.00156	mg/L	0.000178	11.40%
Cat	1328456.4	135	mg/L	0.9	674	mg/L	4.3	0.63%
Cdt	-16.2	-0.00069	mg/L	0.000339	-0.00347	mg/L	0.001696	48.84%
Cot	-8.3	-0.00037	mg/L	0.000075	-0.00184	mg/L	0.000375	20.39%
Crt	64298.3	0.916	mg/L	0.0007	4.58	mg/L	0.004	0.08%
Cut	268.6	0.00063	mg/L	0.000092	0.00314	mg/L	0.000461	14.68%
Fet	22.3	0.0122	mg/L	0.00163	0.0612	mg/L	0.00814	13.31%
Kt	7145.1	5.39	mg/L	0.033	27.0	mg/L	0.17	0.62%
Mgt	357896.5	88.1	mg/L	0.75	440	mg/L	3.7	0.85%
Mot	65.7	0.00440	mg/L	0.000039	0.0220	mg/L	0.00019	0.88%
Nat	602675.1	179	mg/L	1.2	895	mg/L	6.1	0.68%
Nit	-13.1	-0.00060	mg/L	0.000392	-0.00300	mg/L	0.001959	65.31%
Pbt	-22.6	-0.00422	mg/L	0.001234	-0.0211	mg/L	0.00617	29.28%
Tlt	33.1	0.0111	mg/L	0.00088	0.0557	mg/L	0.00442	7.93%
Vt	965.3	0.0110	mg/L	0.00022	0.0550	mg/L	0.00109	1.98%
Znt	255.9	0.00505	mg/L	0.000102	0.0252	mg/L	0.00051	2.02%

Sequence No.: 72
Sample ID: 2708020325_2X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 79
Date Collected: 8/13/2007 23:32:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020325_2X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020325_2X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc†	242481.5	94.0	%	0.19				0.21%
Yr	230345.4	88.4	%	0.74				0.83%
B_†	57317.5	2.18	mg/L	0.002	4.35	mg/L	0.004	0.08%
Ba†	700.6	0.00857	mg/L	0.000149	0.0171	mg/L	0.00030	1.74%
Be†	-1208.4	-0.00037	mg/L	0.000019	-0.00074	mg/L	0.000037	5.03%
Ca†	2568463.8	261	mg/L	1.8	522	mg/L	3.7	0.70%
Cd†	16.9	0.00072	mg/L	0.000090	0.00145	mg/L	0.000180	12.40%
Co†	-3.1	-0.00014	mg/L	0.000043	-0.00027	mg/L	0.000086	31.61%
Cr†	32078.3	0.457	mg/L	0.0013	0.914	mg/L	0.0026	0.28%
Cu†	781.7	0.00183	mg/L	0.000336	0.00366	mg/L	0.000672	18.36%
Fe†	184.0	0.101	mg/L	0.0039	0.201	mg/L	0.0078	3.88%
K†	17423.3	13.1	mg/L	0.06	26.3	mg/L	0.11	0.43%
Mg†	636719.5	157	mg/L	1.2	313	mg/L	2.4	0.76%
Mo†	709.1	0.0475	mg/L	0.00093	0.0951	mg/L	0.00186	1.96%
Na†	2094504.1	622	mg/L	8.7	1240	mg/L	17.3	1.39%
Ni†	17.3	0.00079	mg/L	0.000136	0.00158	mg/L	0.000273	17.23%
Pb†	-35.9	-0.00671	mg/L	0.000378	-0.0134	mg/L	0.00076	5.63%
Tl†	49.0	0.0165	mg/L	0.00160	0.0329	mg/L	0.00320	9.71%
V†	2263.4	0.0165	mg/L	0.00003	0.0329	mg/L	0.00007	0.21%
Zn†	429.4	0.00846	mg/L	0.000345	0.0169	mg/L	0.00069	4.07%

Sequence No.: 73
Sample ID: 2708020326_2X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 80
Date Collected: 8/13/2007 23:37:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020326_2X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020326_2X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	248374.1	96.3	%	0.45				0.47%
Yr	235162.3	90.2	%	0.28				0.31%
B_t	52887.8	2.01	mg/L	0.001	4.02	mg/L	0.003	0.07%
Bat	499.0	0.00610	mg/L	0.000074	0.0122	mg/L	0.00015	1.22%
Bet	-1214.0	-0.00037	mg/L	0.000014	-0.00074	mg/L	0.000029	3.87%
Cat	2634614.4	268	mg/L	4.1	535	mg/L	8.2	1.53%
Cdt	19.3	0.00083	mg/L	0.000112	0.00165	mg/L	0.000225	13.60%
Cot	-5.3	-0.00023	mg/L	0.000475	-0.00047	mg/L	0.000951	202.86%
Crt	35889.8	0.511	mg/L	0.0022	1.02	mg/L	0.004	0.43%
Cut	408.3	0.00096	mg/L	0.000143	0.00191	mg/L	0.000286	14.99%
Fet	30.7	0.0168	mg/L	0.00146	0.0336	mg/L	0.00291	8.66%
Kt	12758.3	9.63	mg/L	0.065	19.3	mg/L	0.13	0.68%
Mgt	557657.9	137	mg/L	2.0	275	mg/L	3.9	1.43%
Mot	312.3	0.0209	mg/L	0.00045	0.0419	mg/L	0.00091	2.17%
Nat	1418805.1	42.	mg/L	4.9	843	mg/L	9.8	1.16%
Nit	2.5	0.00012	mg/L	0.000437	0.00023	mg/L	0.000875	377.69%
Pbt	-41.1	-0.00769	mg/L	0.000693	-0.0154	mg/L	0.00139	9.01%
Tlt	49.9	0.0168	mg/L	0.00094	0.0337	mg/L	0.00188	5.57%
Vt	4727.1	0.0319	mg/L	0.00001	0.0638	mg/L	0.00003	0.05%
Znt	361.8	0.00713	mg/L	0.000048	0.0143	mg/L	0.00010	0.67%

Sequence No.: 74
Sample ID: 2708020328_2X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 81
Date Collected: 8/13/2007 23:41:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020328_2X

Analyte	Back Pressure	Flow
All	219.0 kPa	0.65 L/min

Mean Data: 2708020328_2X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	242820.0	94.2	%	1.13				1.20%
Yr	228496.3	87.6	%	0.23				0.27%
B_t	110418.0	4.19	mg/L	0.010	8.38	mg/L	0.020	0.23%
Bat	625.3	0.00765	mg/L	0.000018	0.0153	mg/L	0.00004	0.24%
Bet	-1711.7	-0.00052	mg/L	0.000007	-0.00104	mg/L	0.000014	1.37%
Cat	2905283.3	295	mg/L	2.2	590	mg/L	4.3	0.74%
Cdt	23.3	0.00100	mg/L	0.000167	0.00199	mg/L	0.000334	16.76%
Cot	-1.8	-0.00008	mg/L	0.000135	-0.00015	mg/L	0.000269	174.28%
Crt	82831.3	1.18	mg/L	0.001	2.36	mg/L	0.002	0.07%
Cut	563.0	0.00132	mg/L	0.000082	0.00264	mg/L	0.000163	6.20%
Fet	-11.5	-0.00629	mg/L	0.000279	-0.0126	mg/L	0.00056	4.44%
Kt	13518.7	10.2	mg/L	0.09	20.4	mg/L	0.18	0.90%
Mgt	677853.9	167	mg/L	1.1	334	mg/L	2.2	0.65%
Mot	223.5	0.0150	mg/L	0.00012	0.0300	mg/L	0.00024	0.81%
Nat	1515960.2	450	mg/L	2.7	901	mg/L	5.5	0.61%
Nit	16.9	0.00077	mg/L	0.000190	0.00155	mg/L	0.000381	24.61%
Pbt	-38.9	-0.00726	mg/L	0.000665	-0.0145	mg/L	0.00133	9.16%
Tlt	55.8	0.0188	mg/L	0.00281	0.0376	mg/L	0.00562	14.95%
Vt	3435.0	0.0277	mg/L	0.00001	0.0553	mg/L	0.00003	0.05%
Znt	301.7	0.00594	mg/L	0.000085	0.0119	mg/L	0.00017	1.44%

Sequence No.: 75
Sample ID: 2708020329_5X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 82
Date Collected: 8/13/2007 23:46:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020329_5X

Analyte	Back Pressure	Flow
All	219.0 kPa	0.65 L/min

Mean Data: 2708020329_5X

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	254265.0	98.6	%	0.08				0.08%
Yr	237854.9	91.2	%	0.30				0.33%
B_t	97729.9	3.71	mg/L	0.020	18.5	mg/L	0.10	0.54%
Bat	415.0	0.00508	mg/L	0.000061	0.0254	mg/L	0.00030	1.20%
Bet	-1492.0	-0.00045	mg/L	0.000015	-0.00227	mg/L	0.000077	3.38%
Cat	1352619.0	137	mg/L	0.8	687	mg/L	3.8	0.56%
Cdt	-23.9	-0.00102	mg/L	0.000022	-0.00511	mg/L	0.000109	2.13%
Cot	5.9	0.00026	mg/L	0.000135	0.00131	mg/L	0.000675	51.58%
Crt	133037.0	1.89	mg/L	0.008	9.47	mg/L	0.039	0.41%
Cut	171.0	0.00040	mg/L	0.000097	0.00200	mg/L	0.000486	24.27%
Fet	0.8	0.00046	mg/L	0.002363	0.00231	mg/L	0.011816	511.17%
Kt	10070.7	7.60	mg/L	0.063	38.0	mg/L	0.32	0.83%
Mgt	376996.7	92.8	mg/L	0.44	464	mg/L	2.2	0.48%
Mot	78.7	0.00528	mg/L	0.000641	0.0264	mg/L	0.00321	12.15%
Nat	835808.6	248	mg/L	1.2	1240	mg/L	5.9	0.47%
Nit	1.2	0.00005	mg/L	0.000171	0.00027	mg/L	0.000857	317.70%
Pbt	-18.7	-0.00349	mg/L	0.000059	-0.0175	mg/L	0.00030	1.70%
Tlt	42.3	0.0142	mg/L	0.00065	0.0710	mg/L	0.00326	4.59%
Vt	14.4	0.0105	mg/L	0.00005	0.0527	mg/L	0.00027	0.51%
Znt	315.5	0.00622	mg/L	0.000147	0.0311	mg/L	0.00073	2.36%

Sequence No.: 76
Sample ID: 2708020330_5X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 83
Date Collected: 8/13/2007 23:50:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020330_5X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020330_5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	259343.1	101	%	1.4				1.42%
Yr	237612.8	91.1	%	1.06				1.16%
B_t	65042.7	2.47	mg/L	0.002	12.3	mg/L	0.01	0.08%
Bat	292.0	0.00357	mg/L	0.000011	0.0179	mg/L	0.00005	0.31%
Bet	-1043.1	-0.00032	mg/L	0.000002	-0.00159	mg/L	0.000010	0.66%
Cat	1317573.5	134	mg/L	0.4	669	mg/L	2.2	0.33%
Cdt	-15.0	-0.00064	mg/L	0.000357	-0.00321	mg/L	0.001786	55.70%
Cot	3.3	0.00015	mg/L	0.000059	0.00073	mg/L	0.000293	40.05%
Crt	77791.6	1.11	mg/L	0.005	5.54	mg/L	0.023	0.42%
Cut	198.0	0.00046	mg/L	0.000327	0.00232	mg/L	0.001634	70.49%
Fet	14.8	0.00810	mg/L	0.001064	0.0405	mg/L	0.00532	13.13%
Kt	7094.0	5.35	mg/L	0.092	26.8	mg/L	0.46	1.71%
Mgt	369138.8	90.9	mg/L	0.29	454	mg/L	1.5	0.32%
Mot	69.9	0.00469	mg/L	0.000162	0.0234	mg/L	0.00081	3.46%
Nat	637880.0	190	mg/L	1.3	948	mg/L	6.5	0.68%
Nit	-5.2	-0.00024	mg/L	0.000542	-0.00118	mg/L	0.002711	229.11%
Pbt	-24.2	-0.00452	mg/L	0.000928	-0.0226	mg/L	0.00464	20.54%
Tlt	37.1	0.0125	mg/L	0.00153	0.0624	mg/L	0.00763	12.22%
Vt	921.5	0.0118	mg/L	0.00005	0.0589	mg/L	0.00027	0.45%
Znt	191.8	0.00378	mg/L	0.000041	0.0189	mg/L	0.00021	1.10%

Sequence No.: 77
Sample ID: 2708020331_20X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 20X

Autosampler Location: 84
Date Collected: 8/13/2007 23:54:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020331_20X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020331_20X

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	264447.7	103	%	1.2				1.15%
Yr	241957.6	92.8	%	0.41				0.45%
B_t	31669.8	1.20	mg/L	0.000	24.0	mg/L	0.01	0.04%
Bat	155.4	0.00190	mg/L	0.000098	0.0380	mg/L	0.00197	5.17%
Bet	-771.6	-0.00024	mg/L	0.000023	-0.00471	mg/L	0.000454	9.64%
Cat	372508.6	37.8	mg/L	0.01	757	mg/L	0.1	0.02%
Cdt	-16.9	-0.00072	mg/L	0.000184	-0.0145	mg/L	0.00368	25.39%
Cot	1.6	0.00007	mg/L	0.000052	0.00137	mg/L	0.001030	75.18%
Crt	69450.3	0.989	mg/L	0.0006	19.8	mg/L	0.01	0.06%
Cut	-45.5	-0.00011	mg/L	0.000236	-0.00213	mg/L	0.004712	221.33%
Fet	2.6	0.00141	mg/L	0.001079	0.0282	mg/L	0.02158	76.55%
Kt	4747.4	3.58	mg/L	0.033	71.7	mg/L	0.66	0.92%
Mgt	97068.4	23.9	mg/L	0.07	478	mg/L	1.4	0.28%
Mot	27.1	0.00182	mg/L	0.000179	0.0364	mg/L	0.00357	9.82%
Nat	332191.9	98.7	mg/L	0.50	1970	mg/L	10.1	0.51%
Nit	2.9	0.00013	mg/L	0.000263	0.00263	mg/L	0.005253	199.97%
Pbt	-7.8	-0.00145	mg/L	0.002382	-0.0291	mg/L	0.04764	163.75%
Tlt	21.9	0.00735	mg/L	0.001609	0.147	mg/L	0.0322	21.88%
Vt	-376.9	0.00314	mg/L	0.000133	0.0628	mg/L	0.00266	4.24%
Znt	105.0	0.00207	mg/L	0.000000	0.0414	mg/L	0.00000	0.00%

Sequence No.: 78
Sample ID: 2708020342_10X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 10X

Autosampler Location: 85
Date Collected: 8/13/2007 23:59:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020342_10X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020342_10X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	257607.2	99.9	%	0.07				0.07%
Yr	237669.8	91.2	%	0.50				0.55%
B_t	8809.0	0.334	mg/L	0.0001	3.34	mg/L	0.001	0.02%
Bat	180.3	0.00221	mg/L	0.000044	0.0221	mg/L	0.00044	2.01%
Bet	-890.0	-0.00027	mg/L	0.000009	-0.00271	mg/L	0.000093	3.41%
Cat	58041.5	5.89	mg/L	0.063	58.9	mg/L	0.63	1.07%
Cdt	44.4	0.00190	mg/L	0.000089	0.0190	mg/L	0.00089	4.68%
Cot	24.7	0.00109	mg/L	0.000056	0.0109	mg/L	0.00056	5.13%
Crt	88308.4	1.26	mg/L	0.000	12.6	mg/L	0.00	0.03%
Cut	267.3	0.00063	mg/L	0.000119	0.00627	mg/L	0.001191	19.01%
Fet	87.5	0.0479	mg/L	0.00043	0.479	mg/L	0.0043	0.89%
Kt	6055.1	4.57	mg/L	0.023	45.7	mg/L	0.23	0.51%
Mgt	8753.6	2.15	mg/L	0.030	21.5	mg/L	0.30	1.41%
Mot	42.7	0.00286	mg/L	0.000233	0.0286	mg/L	0.00233	8.14%
Nat	782595.3	233	mg/L	1.4	2330	mg/L	14.2	0.61%
Nit	-5.2	-0.00024	mg/L	0.000131	-0.00241	mg/L	0.001313	54.50%
Pbt	0.2	0.00005	mg/L	0.000155	0.00046	mg/L	0.001546	336.11%
Tlt	-0.1	-0.00001	mg/L	0.001107	-0.00008	mg/L	0.011073	>999.9%
Vt	754.0	0.0116	mg/L	0.00034	0.116	mg/L	0.0034	2.95%
Znt	98.4	0.00194	mg/L	0.000018	0.0194	mg/L	0.00018	0.94%

Sequence No.: 79
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 8/14/2007 00:03:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	218.0 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	256098.4	99.3	%	0.64				0.65%
Yr	242139.6	92.9	%	0.69				0.74%
B_†	61615.1	2.33	mg/L	0.000	2.33	mg/L	0.000	0.01%
QC value within limits for B_ Recovery = 93.16%								
Ba†	379822.8	4.65	mg/L	0.013	4.65	mg/L	0.013	0.29%
QC value within limits for Ba Recovery = 92.93%								
Be†	6017582.8	1.84	mg/L	0.008	1.84	mg/L	0.008	0.42%
QC value within limits for Be Recovery = 91.75%								
Ca†	514030.8	52.2	mg/L	0.00	52.2	mg/L	0.00	0.01%
QC value within limits for Ca Recovery = 104.39%								
Cd†	57347.0	2.47	mg/L	0.001	2.47	mg/L	0.001	0.04%
QC value within limits for Cd Recovery = 98.88%								
Co†	110941.5	4.89	mg/L	0.001	4.89	mg/L	0.001	0.02%
QC value within limits for Co Recovery = 97.88%								
Cr†	331968.4	4.73	mg/L	0.007	4.73	mg/L	0.007	0.15%
QC value within limits for Cr Recovery = 94.57%								
Cu†	1905913.9	4.46	mg/L	0.008	4.46	mg/L	0.008	0.19%
QC value less than the lower limit for Cu Recovery = 89.30%								
Fe†	9217.0	5.05	mg/L	0.102	5.05	mg/L	0.102	2.02%
QC value within limits for Fe Recovery = 100.90%								
K†	65397.3	49.4	mg/L	0.94	49.4	mg/L	0.94	1.90%
QC value within limits for K Recovery = 98.71%								
Mg†	218974.7	53.9	mg/L	0.10	53.9	mg/L	0.10	0.19%
QC value within limits for Mg Recovery = 107.80%								
Mo†	67975.1	4.56	mg/L	0.002	4.56	mg/L	0.002	0.03%
QC value within limits for Mo Recovery = 91.14%								
Na†	175059.6	52.0	mg/L	0.07	52.0	mg/L	0.07	0.14%
QC value within limits for Na Recovery = 104.04%								
Ni†	104959.0	4.82	mg/L	0.009	4.82	mg/L	0.009	0.19%
QC value within limits for Ni Recovery = 96.37%								
Pb†	25872.9	4.84	mg/L	0.003	4.84	mg/L	0.003	0.06%
QC value within limits for Pb Recovery = 96.71%								
Tl†	14888.3	5.01	mg/L	0.019	5.01	mg/L	0.019	0.38%
QC value within limits for Tl Recovery = 100.21%								
V†	758797.5	4.70	mg/L	0.002	4.70	mg/L	0.002	0.04%
QC value within limits for V Recovery = 93.94%								
Zn†	248513.8	4.86	mg/L	0.005	4.86	mg/L	0.005	0.10%
QC value within limits for Zn Recovery = 97.28%								

QC Failed. Retry.

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

Autosampler Location: 4
Date Collected: 8/14/2007 00:05:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	256984.1	99.6	%	0.42				0.42%
Yr	237686.2	91.2	%	1.79				1.96%
B_†	62416.1	2.36	mg/L	0.004	2.36	mg/L	0.004	0.19%
QC value within limits for B_		Recovery = 94.37%						
Ba†	381259.1	4.66	mg/L	0.041	4.66	mg/L	0.041	0.88%
QC value within limits for Ba		Recovery = 93.28%						
Be†	6053367.6	1.85	mg/L	0.009	1.85	mg/L	0.009	0.47%
QC value within limits for Be		Recovery = 92.30%						
Ca†	513599.1	52.2	mg/L	0.11	52.2	mg/L	0.11	0.20%
QC value within limits for Ca		Recovery = 104.30%						
Cd†	58225.9	2.51	mg/L	0.024	2.51	mg/L	0.024	0.97%
QC value within limits for Cd		Recovery = 100.40%						
Co†	112586.5	4.97	mg/L	0.046	4.97	mg/L	0.046	0.93%
QC value within limits for Co		Recovery = 99.33%						
Cr†	332962.3	4.74	mg/L	0.019	4.74	mg/L	0.019	0.40%
QC value within limits for Cr		Recovery = 94.85%						
Cu†	1932291.8	4.53	mg/L	0.047	4.53	mg/L	0.047	1.04%
QC value within limits for Cu		Recovery = 90.54%						
Fe†	9306.1	5.09	mg/L	0.040	5.09	mg/L	0.040	0.79%
QC value within limits for Fe		Recovery = 101.88%						
K†	65549.4	49.5	mg/L	0.64	49.5	mg/L	0.64	1.29%
QC value within limits for K		Recovery = 98.94%						
Mg†	218823.3	53.9	mg/L	0.04	53.9	mg/L	0.04	0.07%
QC value within limits for Mg		Recovery = 107.73%						
Mo†	69214.5	4.64	mg/L	0.033	4.64	mg/L	0.033	0.72%
QC value within limits for Mo		Recovery = 92.80%						
Na†	172936.5	51.4	mg/L	0.25	51.4	mg/L	0.25	0.50%
QC value within limits for Na		Recovery = 102.78%						
Ni†	106801.6	4.90	mg/L	0.050	4.90	mg/L	0.050	1.01%
QC value within limits for Ni		Recovery = 98.06%						
Pb†	26352.3	4.93	mg/L	0.035	4.93	mg/L	0.035	0.71%
QC value within limits for Pb		Recovery = 98.50%						
Tl†	15044.5	5.06	mg/L	0.045	5.06	mg/L	0.045	0.88%
QC value within limits for Tl		Recovery = 101.26%						
V†	760314.8	4.71	mg/L	0.023	4.71	mg/L	0.023	0.48%
QC value within limits for V		Recovery = 94.13%						
Zn†	250560.1	4.90	mg/L	0.026	4.90	mg/L	0.026	0.53%
QC value within limits for Zn		Recovery = 98.07%						

All analyte(s) passed QC.

Sequence No.: 81
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 8/14/2007 00:08:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	269767.6	105	%	0.4				0.37%
Yr	244325.4	93.7	%	1.67				1.78%
B_†	806.3	0.0306	mg/L	0.00101	0.0306	mg/L	0.00101	3.29%
QC value greater than the upper limit for B_ Recovery = Not calculated								
Ba†	-12.5	-0.00015	mg/L	0.000049	-0.00015	mg/L	0.000049	32.09%
QC value within limits for Ba Recovery = Not calculated								
Be†	-43.0	-0.00001	mg/L	0.000003	-0.00001	mg/L	0.000003	25.29%
QC value within limits for Be Recovery = Not calculated								
Ca†	39.0	0.00396	mg/L	0.001388	0.00396	mg/L	0.001388	35.09%
QC value within limits for Ca Recovery = Not calculated								
Cd†	1.8	0.00008	mg/L	0.000021	0.00008	mg/L	0.000021	27.24%
QC value within limits for Cd Recovery = Not calculated								
Co†	-4.1	-0.00018	mg/L	0.000088	-0.00018	mg/L	0.000088	48.45%
QC value within limits for Co Recovery = Not calculated								
Cr†	115.5	0.00165	mg/L	0.000054	0.00165	mg/L	0.000054	3.29%
QC value within limits for Cr Recovery = Not calculated								
Cu†	-140.4	-0.00033	mg/L	0.000095	-0.00033	mg/L	0.000095	28.98%
QC value within limits for Cu Recovery = Not calculated								
Fe†	-0.0	-0.00003	mg/L	0.001379	-0.00003	mg/L	0.001379	>999.9%
QC value within limits for Fe Recovery = Not calculated								
K†	-99.3	-0.0749	mg/L	0.04318	-0.0749	mg/L	0.04318	57.65%
QC value within limits for K Recovery = Not calculated								
Mg†	2.4	0.00059	mg/L	0.000068	0.00059	mg/L	0.000068	11.44%
QC value within limits for Mg Recovery = Not calculated								
Mo†	17.6	0.00118	mg/L	0.000363	0.00118	mg/L	0.000363	30.67%
QC value within limits for Mo Recovery = Not calculated								
Na†	689.4	0.205	mg/L	0.0007	0.205	mg/L	0.0007	0.35%
QC value within limits for Na Recovery = Not calculated								
Ni†	-9.5	-0.00044	mg/L	0.000383	-0.00044	mg/L	0.000383	87.38%
QC value within limits for Ni Recovery = Not calculated								
Pb†	13.1	0.00244	mg/L	0.000139	0.00244	mg/L	0.000139	5.69%
QC value within limits for Pb Recovery = Not calculated								
Tl†	6.0	0.00202	mg/L	0.001123	0.00202	mg/L	0.001123	55.53%
QC value within limits for Tl Recovery = Not calculated								
V†	-50.4	-0.00030	mg/L	0.000224	-0.00030	mg/L	0.000224	74.58%
QC value within limits for V Recovery = Not calculated								
Zn†	-1.6	-0.00003	mg/L	0.000009	-0.00003	mg/L	0.000009	30.85%
QC value within limits for Zn Recovery = Not calculated								

QC Failed. Retry.

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

Autosampler Location: 0
Date Collected: 8/14/2007 00:11:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	267904.9	104	%	1.0				0.99%
Yr	247948.0	95.1	%	0.23				0.25%
B_†	604.0	0.0229	mg/L	0.00077	0.0229	mg/L	0.00077	3.35%
QC value greater than the upper limit for B_ Recovery = Not calculated								
Ba†	-10.9	-0.00013	mg/L	0.000033	-0.00013	mg/L	0.000033	24.59%
QC value within limits for Ba Recovery = Not calculated								
Be†	-75.2	-0.00002	mg/L	0.000003	-0.00002	mg/L	0.000003	11.60%
QC value within limits for Be Recovery = Not calculated								
Ca†	32.0	0.00325	mg/L	0.000652	0.00325	mg/L	0.000652	20.06%
QC value within limits for Ca Recovery = Not calculated								
Cd†	-1.6	-0.00007	mg/L	0.000092	-0.00007	mg/L	0.000092	128.77%
QC value within limits for Cd Recovery = Not calculated								
Co†	-3.8	-0.00017	mg/L	0.000139	-0.00017	mg/L	0.000139	82.95%
QC value within limits for Co Recovery = Not calculated								
Cr†	90.3	0.00129	mg/L	0.000078	0.00129	mg/L	0.000078	6.09%
QC value within limits for Cr Recovery = Not calculated								
Cu†	-205.1	-0.00048	mg/L	0.000012	-0.00048	mg/L	0.000012	2.52%
QC value within limits for Cu Recovery = Not calculated								
Fe†	-1.3	-0.00071	mg/L	0.000839	-0.00071	mg/L	0.000839	117.93%
QC value within limits for Fe Recovery = Not calculated								
K†	-84.1	-0.0635	mg/L	0.10102	-0.0635	mg/L	0.10102	159.11%
QC value within limits for K Recovery = Not calculated								
Mg†	2.4	0.00059	mg/L	0.000310	0.00059	mg/L	0.000310	52.33%
QC value within limits for Mg Recovery = Not calculated								
Mo†	4.5	0.00030	mg/L	0.000199	0.00030	mg/L	0.000199	65.76%
QC value within limits for Mo Recovery = Not calculated								
Na†	585.0	0.174	mg/L	0.0073	0.174	mg/L	0.0073	4.18%
QC value within limits for Na Recovery = Not calculated.								
Ni†	-8.8	-0.00041	mg/L	0.000291	-0.00041	mg/L	0.000291	71.72%
QC value within limits for Ni Recovery = Not calculated								
Pb†	6.4	0.00120	mg/L	0.000170	0.00120	mg/L	0.000170	14.21%
QC value within limits for Pb Recovery = Not calculated								
Tl†	0.2	0.00006	mg/L	0.000533	0.00006	mg/L	0.000533	821.64%
QC value within limits for Tl Recovery = Not calculated								
V†	34.7	0.00022	mg/L	0.000009	0.00022	mg/L	0.000009	4.09%
QC value within limits for V Recovery = Not calculated								
Zn†	-11.6	-0.00023	mg/L	0.000227	-0.00023	mg/L	0.000227	100.58%
QC value within limits for Zn Recovery = Not calculated								
QC Failed. Retry.								

Sequence No.: 83 **Autosampler Location: 0**
Sample ID: CCB **Date Collected: 8/14/2007 00:13:50**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	267902.3	104	%	0.1				0.06%
Yr	244814.2	93.9	%	1.13				1.20%
B_†	480.4	0.0182	mg/L	0.00028	0.0182	mg/L	0.00028	1.55%
QC value within limits for B_ Recovery = Not calculated								
Ba†	-3.2	-0.00004	mg/L	0.000029	-0.00004	mg/L	0.000029	75.89%
QC value within limits for Ba Recovery = Not calculated								
Be†	-20.0	-0.00001	mg/L	0.000023	-0.00001	mg/L	0.000023	382.36%
QC value within limits for Be Recovery = Not calculated								
Ca†	53.6	0.00544	mg/L	0.001167	0.00544	mg/L	0.001167	21.44%
QC value within limits for Ca Recovery = Not calculated								
Cd†	-8.0	-0.00034	mg/L	0.000010	-0.00034	mg/L	0.000010	3.05%
QC value within limits for Cd Recovery = Not calculated								
Co†	-3.2	-0.00014	mg/L	0.000015	-0.00014	mg/L	0.000015	10.44%

QC value within limits for Co Recovery = Not calculated

Cr†	72.6	0.00103 mg/L	0.000002	0.00103 mg/L	0.000002	0.20%

QC value within limits for Cr Recovery = Not calculated

Cu†	-236.0	-0.00055 mg/L	0.000077	-0.00055 mg/L	0.000077	13.94%

QC value within limits for Cu Recovery = Not calculated

Fe†	-0.5	-0.00030 mg/L	0.003873	-0.00030 mg/L	0.003873	>999.9%

QC value within limits for Fe Recovery = Not calculated

K†	-102.9	-0.0776 mg/L	0.04931	-0.0776 mg/L	0.04931	63.52%

QC value within limits for K Recovery = Not calculated

Mg†	4.8	0.00117 mg/L	0.000431	0.00117 mg/L	0.000431	36.72%

QC value within limits for Mg Recovery = Not calculated

Mo†	1.2	0.00008 mg/L	0.000216	0.00008 mg/L	0.000216	279.52%

QC value within limits for Mo Recovery = Not calculated

Na†	564.0	0.168 mg/L	0.0104	0.168 mg/L	0.0104	6.18%

QC value within limits for Na Recovery = Not calculated

Ni†	-12.6	-0.00058 mg/L	0.000181	-0.00058 mg/L	0.000181	31.31%

QC value within limits for Ni Recovery = Not calculated

Pb†	6.2	0.00116 mg/L	0.000265	0.00116 mg/L	0.000265	22.87%

QC value within limits for Pb Recovery = Not calculated

Tl†	1.1	0.00036 mg/L	0.001900	0.00036 mg/L	0.001900	526.75%

QC value within limits for Tl Recovery = Not calculated

V†	-9.2	-0.00005 mg/L	0.000024	-0.00005 mg/L	0.000024	47.09%

QC value within limits for V Recovery = Not calculated

Zn†	-21.6	-0.00042 mg/L	0.000123	-0.00042 mg/L	0.000123	29.13%

QC value within limits for Zn Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 84
Sample ID: 2708020343_2X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 86
Date Collected: 8/14/2007 00:17:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020343_2X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020343_2X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	278076.2	108	%	2.0				1.82%
Yr	253318.2	97.2	%	0.99				1.02%
B_t	384.8	0.0146	mg/L	0.00040	0.0292	mg/L	0.00081	2.76%
Bat	130.0	0.00159	mg/L	0.000032	0.00318	mg/L	0.000064	2.00%
Bet	43.0	0.00001	mg/L	0.000002	0.00003	mg/L	0.000003	13.10%
Cat	32739.6	3.32	mg/L	0.002	6.65	mg/L	0.005	0.07%
Cdt	-5.6	-0.00024	mg/L	0.000129	-0.00048	mg/L	0.000258	53.65%
Cot	1.3	0.00006	mg/L	0.000158	0.00012	mg/L	0.000315	266.29%
Crt	115.9	0.00165	mg/L	0.000303	0.00330	mg/L	0.000606	18.35%
Cut	-17.3	-0.00004	mg/L	0.000096	-0.00008	mg/L	0.000193	239.10%
Fet	80.2	0.0439	mg/L	0.00108	0.0878	mg/L	0.00215	2.45%
Kt	-45.5	-0.0343	mg/L	0.02542	-0.0686	mg/L	0.05084	74.08%
Mgt	458.1	0.113	mg/L	0.0002	0.226	mg/L	0.0005	0.22%
Mot	2.8	0.00019	mg/L	0.000136	0.00038	mg/L	0.000272	71.92%
Nat	1016.5	0.302	mg/L	0.0064	0.604	mg/L	0.0128	2.12%
Nit	-3.9	-0.00018	mg/L	0.000050	-0.00036	mg/L	0.000101	27.89%
Pbt	15.3	0.00286	mg/L	0.000048	0.00571	mg/L	0.000096	1.69%
Tlt	3.6	0.00120	mg/L	0.000760	0.00241	mg/L	0.001520	63.18%
Vt	75.9	0.00048	mg/L	0.000243	0.00095	mg/L	0.000487	51.12%
Znt	90.7	0.00179	mg/L	0.000208	0.00358	mg/L	0.000416	11.64%

Sequence No.: 85
Sample ID: 2708020344_5X
Analyst: Walter Hsieh
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 87
Date Collected: 8/14/2007 00:20:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2708020344_5X

Analyte	Back Pressure	Flow
All	218.0 kPa	0.65 L/min

Mean Data: 2708020344_5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	260553.5	101	%	1.2				1.23%
Yr	241980.1	92.8		0.17				0.18%
B_t	15717.1	0.597	mg/L	0.0017	2.98	mg/L	0.008	0.28%
Bat	328.4	0.00402	mg/L	0.000048	0.0201	mg/L	0.00024	1.20%
Bet	-1430.8	-0.00044	mg/L	0.000006	-0.00218	mg/L	0.000028	1.26%
Cat	111294.3	11.3	mg/L	0.15	56.5	mg/L	0.73	1.30%
Cdt	90.6	0.00388	mg/L	0.000091	0.0194	mg/L	0.00046	2.35%
Cot	34.2	0.00151	mg/L	0.000091	0.00753	mg/L	0.000457	6.06%
Crt	168064.1	2.39	mg/L	0.000	12.0	mg/L	0.00	0.01%
Cut	314.1	0.00074	mg/L	0.000110	0.00368	mg/L	0.000551	14.98%
Fet	137.6	0.0753	mg/L	0.00001	0.377	mg/L	0.0001	0.02%
Kt	12189.9	9.20	mg/L	0.137	46.0	mg/L	0.68	1.48%
Mgt	16616.1	4.09	mg/L	0.054	20.5	mg/L	0.27	1.31%
Mot	97.5	0.00653	mg/L	0.000035	0.0327	mg/L	0.00018	0.54%
Nat	1517164.9	451	mg/L	1.0	2250	mg/L	4.8	0.21%
Nit	-2.1	-0.00010	mg/L	0.000255	-0.00048	mg/L	0.001276	264.51%
Pbt	-2.7	-0.00051	mg/L	0.000013	-0.00256	mg/L	0.000067	2.60%
Tlt	7.1	0.00242	mg/L	0.000506	0.0121	mg/L	0.00253	20.88%
Vt	1644.0	0.0233	mg/L	0.00006	0.117	mg/L	0.0003	0.28%
Znt	320.0	0.00631	mg/L	0.000205	0.0315	mg/L	0.00102	3.25%

Standard Preparation Worksheet & Certificate of Analysis

Reagent	Lot #		
HNO3 R# 100411		HCL R# 100412	
IS = Yttrium(ME0702007)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/MCV/ECV (Prepare daily)	ME0610005	(04/10/08) ✓	CCV/ECV 1:20 ME0610006 MCV 1:40 ME0610007
Spike/LCS	ME0606004	(12/13/07) ✓	1:100 ME0601006
(Prepare daily)	ME0705006	(10/01/07) ✓	1:100
	ME0704005	(10/04/08) ✓	1:200
MRL (Prepare daily)	ME0703010	(09/16/07) ✓	1:100 ME0603015
ICSA	ME0705012	(08/23/07) ✓	
ICSAB	ME0705013	(08/23/07) ✓	
QC-25 1PPM	ME0705005	(11/09/07) ✓	
Linearity	ME0705004	(11/09/07) ✓	
Method Sr/Ti/Sn/SiO2			
Calibration	ME0708004	(02/07/08) ✓	
CCV/ECV	ME0703007	(09/16/07) ✓	
Spike/LCS (Prepare daily)	ME0703006	(09/16/07) ✓	1:100
MRL (Prepare daily)	ME0708005	(02/07/08) ✓	1:100
Method Li			
Std/ICV/MRL (Prepare daily)	ME0703008	(09/16/07) ✓	1:1000, 200, 40, 10
LCS/Spike (Prepare daily)	ME0707002	(01/10/08) ✓	1:50
ccv (Prepare daily)	ME0707001	(10/31/07) ✓	1:40

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: WBH
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		1000 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		100 ug/ml
Be		50 ug/ml
SR		40 ug/ml
Ag		30 ug/ml
		20 ug/ml

INORGANIC VENTURES
195 Lehigh Avenue, Suite 4
Lakewood, New Jersey 08701 - USA
inorganicventures.com
tel: 800.669.6799 732.901.1900
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** Custom Solution

Catalog No.: MWH-ICAP-CAL-1

Lot Number: **A2-MEB235010**

Matrix: 5% HNO3(abs)

M8070403

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 ± 4ºC. **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 FEB 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: WH
Date: 4/23/07

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

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 732.901.1900
fax: 732.901.1903
info@inorganicventures.com

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

2.0 **DESCRIPTION OF CRM** Custom Solution

MZ0704024

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:

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

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
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 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: WBH
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

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard
Santa Rosa, CA 95403
www.cpiinternational.com
707.525.5788
800.878.7654
Fax 707.545.7901

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

Expiry: 4/10/2008

Certificate of Analysis

M20610025

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

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

CVB3
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		

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

EUROPE
P.O. Box 2704 +31 20 638 05 97
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 60604

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: 5/9/07

METALS STANDARD DOCUMENTATION

Standard: ICP Spike solution
Date Received/Prepped: 5/9/2007
Date Expired: 10/1/2007
Manufacturer: MWH-WBH

Matrix: 2% HNO3
Amount: 100mL x 2

ME #: 0705006
By: WBH
Lot #:
Certificate: Y

NIST SRM: 3100 SERIES
Storage: Room Temp

Component	Comment	Conc. Unit:
AS	8.0mL ME0611005/100mL	80 ppm
PB	8.0mL ME0704013/100mL	80 ppm
SE	8.0mL ME0703001/100mL	80 ppm
TL	8.0mL ME0702006/100mL	80 ppm

Intial:
Date: 11/14/06

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

INORGANIC VENTURES
1995 Lehigh Avenue, Suite 4
Lakewood, New Jersey 08701 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 - 732.901.1900
fax: 732.901.1903
info@inorganicventures.com

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

MF061100S

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

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)

4.2 BALANCE CALIBRATION - All balances are checked daily using in-house procedure number 6-IMM-001. 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

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: 4/16/07

METALS STANDARD DOCUMENTATION

Standard:	Lead Stock Standard	**ME #:**	0704013
Date Received/Prepped:	4/16/2007	**By:**	WBH
Date Expired:	10/11/2008	**Lot #:**	07A097
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	2% HNO3	**NIST SRM:**	3128
Amount:	100 mL	Room temp. storage	

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

CPI INTERNATIONAL

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

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

Innovative Solutions in Analytical Science and Technology

CERTIFICATE OF ANALYSIS

P/N S4400-1000281
P/N 4400-1000281

1270704013

Single-Element Lead Standard
Pb in 2% HNO_3
1000 ± 3 µg/mL

Lot # 07A097

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

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

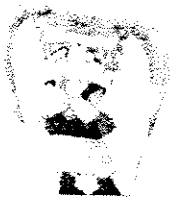
The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3128. Trace impurities of the 1000 µg/mL standard were analyzed by ICP-MS.

	ppb	DL		ppb	DL		ppb	DL		ppb	DL		ppb	DL
Al	10.3	0.1	Cu	58	0.1	Pb	X	0.1	K	ND	70	Tl	0.25	0.1
Sb	ND	0.1	Dy	ND	0.1	Li	2	0.4	Pr	ND	0.1	Th	ND	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1	Tm	ND	0.1
Ba	0.22	0.1	Eu	ND	0.1	Mg	1.4	0.2	Rh	IN	0.1	Sn	ND	0.1
Be	0.58	0.1	Gd	ND	0.1	Mn	3.8	1	Rb	ND	0.1	Ti	0.58	0.1
Bi	0.7	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	0.17	0.1	Sm	ND	0.1	U	ND	0.1
Br	ND	10	Au	ND	0.1	Nd	ND	0.1	Se	ND	6	V	ND	1
Cd	ND	0.1	Hf	ND	0.1	Ni	0.9	0.1	Si	31	8	Yb	ND	0.1
Ca	25	7	Ho	ND	0.1	Nb	ND	0.1	Ag	6.1	0.1	Y	ND	0.1
Ce	ND	0.1	I	0.1	0.2	Os	ND	0.1	Na	3.5	1	Zn	23	2
Cs	0.26	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 United States or +31 20 638 05 97 in Europe.



Intial: WBH
Date: 3/27/07

METALS STANDARD DOCUMENTATION

Standard:	Selenium Stock Standard
Date Received/Prepped:	3/5/2007
Date Expired:	8/22/2008
Manufacturer:	CPI
Matrix:	2% HNO3
Amount:	100 mL

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

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

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

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

AUG 22 08

CERTIFICATE OF ANALYSIS

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

M-070300 1

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: 2/20/07

METALS STANDARD DOCUMENTATION

Standard:	Thallium 1000ppm Stock Std	**ME #:**	0702006
Date Received/Prepped:	2/20/2007	**By:**	WBH
Date Expired:	8/16/2008	**Lot #:**	06H213
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	2% HNO3	**NIST SRM:**	3158
Amount:	100 mL	Room temp. storage	

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

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

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

MF0702006

CERTIFICATE OF ANALYSIS

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

Single Element Thallium Standard
Tl in 2% HNO_3
1000 ± 3 µg/mL

Lot # 06H213

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

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

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

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

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

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

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

Intial: wbh
Date: 4/11/07

METALS STANDARD DOCUMENTATION

Standard: ICP LCS/SPIKE STOCK STD
Date Received/Prepped: 4/10/2007
Date Expired: 10/4/2008
Manufacturer: CPI
Matrix: 5% HNO3
Amount: 100mL

ME #: 0704005
By: wbh
Lot #: 07D019
Certificate: Y
NIST SRM: 3100 series
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

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard
Santa Rosa, CA 95403
www.cpiinternational.com
707.525.5788
800.878.7654
Fax 707.545.7901

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

CERTIFICATE OF ANALYSIS

P/N: 4400-130309
Lot Number: 07D019
Shelf Life: 18 months
Expiration Date: 10/04/2008

MZ 070400 5

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: 9/25/06

METALS STANDARD DOCUMENTATION

Standard: ICP MRL Stock Solution
Date Received/Prepped: 9/25/2006
Date Expired: 9/20/2007
Manufacturer: CPI
Matrix: 2% HNO3 + tr HF
Amount: 100 mL

ME #: 0609001
By: WBH
Lot #: 061162
Certificate: Yes
NIST SRM: 3100 series
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

CPI INTERNATIONAL

InnOvative Solutions in A nalytical Science and Technology

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707 545.7901

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

M70609001

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: WBH
Date: 5/16/07

METALS STANDARD DOCUMENTATION

Standard: Interference Check Std A (ICSA)
Date Received/Prepped: 5/16/2007
Date Expired: 8/23/2007
Manufacturer: MWH-WBH
Matrix: 5% HNO3
Amount: 500 mL

ME #: 0705012
By: WBH
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
Date Received/Prepped: 3/2/2006
Date Expired: 8/23/2007
Manufacturer: CPI
Matrix: 5% HNO3
Amount: 500mL

ME #: 0603001
By: WBH
Lot #: 06A078
Certificate: Y
NIST SRM: varius
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

AUG 23 07

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

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

CERTIFICATE OF ANALYSIS

P/N 4400-INTA1-500

CLP Interferents A Solution
in 5% HNO_3

M20603-01

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: 5/16/07

METALS STANDARD DOCUMENTATION

Standard: Interference Check Std AB (ICSAB)
Date Received/Prepped: 5/16/2007
Date Expired: 8/23/2007
Manufacturer: MWH-WBH
Matrix: 5% HNO3
Amount: 500 mL

ME #: 0705013
By: WBH
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	~~25~~mL ME0603002/500mL	0.5 ppm
Ba	2.5mL.	0.25 ppm
Be	⊖ 5/16/07	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
Date Received/Prepped: 3/2/2006
Date Expired: 8/23/2007
Manufacturer: CPI
Matrix: 5% HNO3
Amount: 500mL

ME #: 0603001
By: WBH
Lot #: 06A078
Certificate: Y
NIST SRM: varius
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

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

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

G 23 07

CERTIFICATE OF ANALYSIS

P/N 4400-INTA1-500

CLP Interferents A Solution
in 5% HNO_3

M-060301

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
Date Received/Prepped: 3/2/2006
Date Expired: 8/23/2007
Manufacturer: CPI
Matrix: 5% HNO3
Amount: 100 mL

ME #: 0603002
By: WBH
Lot #: 04L149
Certificate: Y
NIST SRM: 3100 series
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

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

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

MT06-3002

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: 5/9/07

METALS STANDARD DOCUMENTATION

Standard: ICP QC-25 1PPM
Date Received/Prepped: 5/9/2007
Date Expired: 11/9/2007
Manufacturer: MWH-DYH
Matrix: 5% HNO3
Amount: 500 mL

ME #: 0705005
By: DYH
Lot #: VARIOUS
Certificate:
NIST SRM:
Storage: Room Temp

Component	Comment	Conc.	Unit:
Ag	5mL ME0608006+ 5mL ME0608007	1	ppm
Al	per 500mL DI	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 7
Date Received/Prepped: 8/31/2006
Date Expired: 8/31/2007
Manufacturer: Crescent Chemical
Matrix: 5% HNO3 + tr. HF
Amount: 100 mL

ME #: 0608007
By: WBH
Lot #: 062504K
Certificate: Y
NIST SRM: Various
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

MT060807

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

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

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

Intial: WBH
Date: 8/31/06

METALS STANDARD DOCUMENTATION

Standard: QC Check Std 21
Date Received/Prepped: 8/31/2006
Date Expired: 8/31/2007
Manufacturer: Crescent Chemical
Matrix: 5% HNO3 + tr. Tartaric Acid
Amount: 100 mL

ME #: 0608006
By: WBH
Lot #: 062504J
Certificate: Y
NIST SRM: Various
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

MZ-0608006

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: 5/5/07

METALS STANDARD DOCUMENTATION

Standard: ICP LINEARITY CHECK
Date Received/Prepped: 5/9/2007
Date Expired: 11/9/2007
Manufacturer: MWH-WBH
Matrix: 5% HNO3
Amount: 500mL

ME #: 0705004
By: WBH
Lot #:
Certificate: Y
NIST SRM: 3100 SERIES
Storage: Room Temp

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

Intial: WBH
Date: 2/20/07

METALS STANDARD DOCUMENTATION

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

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

AUG 1 6 08

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

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

CERTIFICATE OF ANALYSIS

M20702005

P/N 4400-10M411
P/N S4400-10M411

Single-Element Potassium Standard
K in 1% HNO_3
10,000 ± 30 µg/mL

Lot # 07B056

Material Source: Potassium Nitrate (KNO_3)
Source Purity: 99.999%
Specific Gravity: 1.019 @ 21 °C

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

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

	ppb	DL
Al	0.39	0.1
Sb	0.34	0.1
As	ND	6
Ba	0.14	0.1
Be	ND	0.1
Bi	ND	0.1
B	ND	4
Br	ND	10
Cd	ND	0.1
Ca	82	7
Ce	ND	0.1
Cs	ND	0.1
Cr	ND	1
Co	ND	0.1

	ppb	DL
Cu	0.16	0.1
Dy	ND	0.1
Er	ND	0.1
Eu	ND	0.1
Gd	ND	0.1
Ga	ND	0.1
Ge	ND	0.1
Au	ND	0.1
Hf	ND	0.1
Ho	ND	0.1
I	ND	0.2
Ir	ND	0.1
Fe	ND	30
La	ND	0.1

	ppb	DL
Pb	ND	0.1
Li	ND	0.4
Lu	ND	1
Mg	2.6	0.2
Mn	0.93	1
Hg	ND	0.2
Mo	ND	0.1
Nd	ND	0.1
Ni	0.4	0.1
Nb	ND	0.1
Os	ND	0.1
Pd	ND	0.1
P	18	10
Pt	ND	0.1

	ppb	DL
K	X	70
Pr	ND	0.1
Re	ND	0.1
Rh	ND	0.1
Rb	9.5	0.1
Ru	ND	0.1
Sm	ND	0.1
Se	ND	6
Si	50	20
Ag	ND	0.1
Na	19	1
Sr	1	0.1
Ta	ND	0.1
Te	ND	0.1

	ppb	DL
Tl	ND	0.1
Th	ND	0.1
Tm	ND	0.1
Sn	0.17	0.1
Ti	ND	0.1
W	ND	0.1
U	ND	0.1
V	ND	1
Yb	ND	0.1
Y	ND	0.1
Zn	2.9	1
Zr	ND	0.1

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

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

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

Intial: WBH
Date: 2/20/07

METALS STANDARD DOCUMENTATION

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

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

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

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

CERTIFICATE OF ANALYSIS

4/20/2004

P/N 4400-10M311
P/N S4400-10M311

Single-Element Magnesium Standard
Mg in 4% HNO_3
10,000 ± 30 µg/mL

Lot # 07B058

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

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

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

	ppb	DL
Al	28	0.1
Sb	ND	0.1
As	ND	6
Ba	0.28	0.1
Be	ND	0.1
Bi	ND	0.1
B	ND	4
Br	ND	10
Cd	ND	0.1
Ca	ND	7
Ce	2.1	0.1
Cs	ND	0.1
Cr	ND	1
Co	ND	0.1

	ppb	DL
Cu	1.6	0.1
Dy	ND	0.1
Er	ND	0.1
Eu	ND	0.1
Gd	0.23	0.1
Ga	0.18	0.1
Ge	ND	0.1
Au	ND	0.1
Hf	ND	0.1
Ho	ND	0.1
I	1	0.2
Ir	ND	0.1
Fe	80	30
La	0.76	0.1

	ppb	DL
Pb	7.7	0.7
Li	ND	0.4
Lu	ND	1
Mg	X	0.2
Mn	19.8	1
Hg	ND	0.2
Mo	ND	0.1
Nd	1.1	0.1
Ni	1	0.1
Nb	ND	0.1
Os	ND	0.1
Pd	ND	0.1
P	ND	10
Pt	ND	0.1

	ppb	DL
K	ND	70
Pr	0.28	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	64	20
Ag	0.19	0.1
Na	7.2	1
Sr	0.19	0.1
Ta	ND	0.1
Te	ND	0.1

	ppb	DL
Tl	0.91	0.1
Th	ND	0.1
Tm	ND	0.1
Sn	0.14	0.1
Ti	ND	0.1
W	ND	0.1
U	ND	0.1
V	ND	1
Yb	ND	0.1
Y	0.2	0.1
Zn	ND	1
Zr	0.29	0.1

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

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

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

Intial: WBH
Date: 2/29/07

METALS STANDARD DOCUMENTATION

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

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

AUG 1 6 08

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard
Santa Rosa, CA 95403
www.cpiinternational.com
707.525.5788
800.878.7654
Fax 707.545.7901

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

CERTIFICATE OF ANALYSIS

MZ0702003

P/N 4400-10M521
P/N S4400-10M521
Single-Element Sodium Standard
Na in 1% HNO_3
10,000 ± 30 μg/mL

Lot # 07B057

Material Source: Sodium Nitrate ($NaNO_3$)
Source Purity: 99.99%
Specific Gravity: 1.053 @ 21 °C

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

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

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

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

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

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

Intial: WBH
Date: 2/20/07

METALS STANDARD DOCUMENTATION

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

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

CPI INTERNATIONAL

Innovative Solutions in Analytical Science and Technology

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

AUG 1 6 08

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

CERTIFICATE OF ANALYSIS

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

170702602

Single-Element Calcium Standard
Ca in 4% HNO_3
10,000 ± 30 μg/mL

Lot # 07B065

Material Source: Calcium Carbonate ($CaCO_3$)
Source Purity: 99.997%
Specific Gravity: 1.035 @ 21 °C

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

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

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

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

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

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

Intial: WBH
Date: 1/27/07

METALS STANDARD DOCUMENTATION

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

ME #: 701008
By: WBH
Lot #: 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

USA
5580 Skylane Boulevard 707.525.5788
Santa Rosa, CA 95403 800.878.7654
www.cpiinternational.com Fax 707.545.7901

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

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.

Project No._____

Book No._____ TITLE _____ # 102

From Page No.___

LOG #	CLIENT	SX - ID	MIX	VOLUME	COMMENTS
	200.7	08-08-07	IRF		HNO_3 Rx# 100411 → (1ml)
BLANK	DIGEST				HCl Rx# 100412 → (2.5ml)
LCS					LCS/SPIKE
LCSD					
270802 0271	KERRMCGEE_MD	I-B	AQ	50ml → 50ml	ME 0606004 → (0.5ml)
↓ MS		↓			ME 0705006
↓ MSD					ME 0704005 → (0.250ml)
270802 0272		I-AR			
↓ MS		↓			
↓ MSD					
270302 0256		I-O			
0257		I-P			
0258		I-H			
0259		I-U			
0260		I-T			
0261		I-Q			
0262		I-F			
0263		I-N			
0264		I-E			
0265		I-M			
0266		I-D			
0267		I-C			
0268		I-J			
0269		I-L			
0270		I-R			
0317		M-92			
0318		M-97			
0319		M-31A			
	200.7 DIGEST	JR	08-08-07		

To Page No.____

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

TITLE ~~#~~ 167

Project No.

Book No.

From Page No.

LOG #	CLIENT	SX-ID	MIX	VOLUME	COMMENTS
	200.7	~~JRF~~	08-08-07		HNO_3 R# 100411 → (1mL
BLANK	DIGEST				HCl R# 100412 → (2.5mL
LCS					LCS/SPIKE
LCSD					ME 060604
2708020327	KERRMCGEEMP	I-K	AQ	50ml → 50ml	ME 0705006 → (0.5mL
MS					ME 0704005 → (0.250mL
MSD					
2708020332		I-V			
MS					
MSD					
2708020320		M-50			
0321		M-34			
0322		M-35			
0323		M-19			
0324		M-39			
0325		M-68			
0326		M-1			
0328		I-J			
0329		I-2			
0330		M-67			
0331		I-I			
0342		M-12A			
0343		EB-2			
0344		MD-2			
2708030224		M-87			
0225		M-74			
0226		M-73			
0227		M-88			
	200.7 DIGEST	08-08-07	08-08-07	JRF	

To Page No.

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

Recorded by