Level C Data Package Deliverables

Metals

Applied P & Ch Laboratory

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/19/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03M1481-MB-01	Received Date:	05/19/2003
Sample ID:	**03M1481-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	μg/L	5	< 5	U	F		03M1481E	05/19/03	05/19/03	1	200.9
CALCIUM	7440-70-2	μg/L	200	< 200	U	P		03M1479M	05/19/03	05/19/03	1	200.7
IRON	7439-89-6	μg/L	50	< 50	U	P		03M1479M	05/19/03	05/19/03	1	200.7
MAGNESIUM	7439-95-4	μg/L	100	< 100	U	P		03M1479M	05/19/03	05/19/03	1	200.7
POTASSIUM	7440-09-7	μg/L	400	79.5	B	P		03M1479M	05/19/03	05/19/03	1	200.7
SODIUM	7440-23-5	μg/L	2000	< 2000	U	P		03M1479M	05/19/03	05/19/03	1	200.7

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-1	Received Date:	05/13/2003
Sample ID:	**DUPE-7-2Q03**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	μg/L	5	< 5	U	F		03M1481E	05/19/03	05/19/03	1	200.9
CALCIUM	7440-70-2	μg/L	200	37700		P		03M1479M	05/19/03	05/19/03	1	200.7
IRON	7439-89-6	μg/L	50	184		P		03M1479M	05/19/03	05/19/03	1	200.7
MAGNESIUM	7439-95-4	μg/L	100	13400		P		03M1479M	05/19/03	05/19/03	1	200.7
POTASSIUM	7440-09-7	μg/L	400	1540		P		03M1479M	05/19/03	05/19/03	1	200.7
SODIUM	7440-23-5	μg/L	2000	24300		P		03M1479M	05/19/03	05/19/03	1	200.7

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-2	Received Date:	05/13/2003
Sample ID:	**EB-13-5/13/03**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	μg/L	5	< 5	U	F		03M1481E	05/19/03	05/19/03	1	200.9
CALCIUM	7440-70-2	μg/L	200	< 200	U	P		03M1479M	05/19/03	05/19/03	1	200.7
IRON	7439-89-6	μg/L	50	31.5	B	P		03M1479M	05/19/03	05/19/03	1	200.7
MAGNESIUM	7439-95-4	μg/L	100	85.8	B	P		03M1479M	05/19/03	05/19/03	1	200.7
POTASSIUM	7440-09-7	μg/L	400	172	B	P		03M1479M	05/19/03	05/19/03	1	200.7
SODIUM	7440-23-5	μg/L	2000	1000	B	P		03M1479M	05/19/03	05/19/03	1	200.7

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-3	Received Date:	05/13/2003
Sample ID:	**MW-18-1**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	μg/L	5	< 5	U	F		03M1481E	05/19/03	05/19/03	1	200.9
CALCIUM	7440-70-2	μg/L	200	48100		P		03M1479M	05/19/03	05/19/03	1	200.7
IRON	7439-89-6	μg/L	50	138		P		03M1479M	05/19/03	05/19/03	1	200.7
MAGNESIUM	7439-95-4	μg/L	100	15500		P		03M1479M	05/19/03	05/19/03	1	200.7
POTASSIUM	7440-09-7	μg/L	400	2340		P		03M1479M	05/19/03	05/19/03	1	200.7
SODIUM	7440-23-5	μg/L	2000	15600		P		03M1479M	05/19/03	05/19/03	1	200.7

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-4	Received Date:	05/13/2003
Sample ID:	**MW-18-2**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	μg/L	5	< 5	U	F		03M1481E	05/19/03	05/19/03	1	200.9
CALCIUM	7440-70-2	μg/L	200	53200		P		03M1479M	05/19/03	05/19/03	1	200.7
IRON	7439-89-6	μg/L	50	176		P		03M1479M	05/19/03	05/19/03	1	200.7
MAGNESIUM	7439-95-4	μg/L	100	17500		P		03M1479M	05/19/03	05/19/03	1	200.7
POTASSIUM	7440-09-7	μg/L	400	2460		P		03M1479M	05/19/03	05/19/03	1	200.7
SODIUM	7440-23-5	μg/L	2000	19400		P		03M1479M	05/19/03	05/19/03	1	200.7

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-5	Received Date:	05/13/2003
Sample ID:	**MW-18-3**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	μg/L	5	< 5	U	F		03M1481E	05/19/03	05/19/03	1	200.9
CALCIUM	7440-70-2	μg/L	200	71600		P		03M1479M	05/19/03	05/19/03	1	200.7
IRON	7439-89-6	μg/L	50	58.0		P		03M1479M	05/19/03	05/19/03	1	200.7
MAGNESIUM	7439-95-4	μg/L	100	20400		P		03M1479M	05/19/03	05/19/03	1	200.7
POTASSIUM	7440-09-7	μg/L	400	3050		P		03M1479M	05/19/03	05/19/03	1	200.7
SODIUM	7440-23-5	μg/L	2000	23600		P		03M1479M	05/19/03	05/19/03	1	200.7

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-6	Received Date:	05/13/2003
Sample ID:	**MW-18-4**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	μg/L	5	< 5	U	F		03M1481E	05/19/03	05/19/03	1	200.9
CALCIUM	7440-70-2	μg/L	200	41600		P		03M1479M	05/19/03	05/19/03	1	200.7
IRON	7439-89-6	μg/L	50	169		P		03M1479M	05/19/03	05/19/03	1	200.7
MAGNESIUM	7439-95-4	μg/L	100	13800		P		03M1479M	05/19/03	05/19/03	1	200.7
POTASSIUM	7440-09-7	μg/L	400	1960		P		03M1479M	05/19/03	05/19/03	1	200.7
SODIUM	7440-23-5	μg/L	2000	28800		P		03M1479M	05/19/03	05/19/03	1	200.7

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/13/2003
Project ID:	JPL GW Mon-2Q03	Service ID:	33205	Collected by:	
		Lab Sample ID:	03-3205-7	Received Date:	05/13/2003
Sample ID:	**MW-18-5**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	μg/L	5	< 5	U	F		03M1481E	05/19/03	05/19/03	1	200.9
CALCIUM	7440-70-2	μg/L	200	8960		P		03M1479M	05/19/03	05/19/03	1	200.7
IRON	7439-89-6	μg/L	50	206		P		03M1479M	05/19/03	05/19/03	1	200.7
MAGNESIUM	7439-95-4	μg/L	100	4660		P		03M1479M	05/19/03	05/19/03	1	200.7
POTASSIUM	7440-09-7	μg/L	400	1830		P		03M1479M	05/19/03	05/19/03	1	200.7
SODIUM	7440-23-5	μg/L	2000	52800		P		03M1479M	05/19/03	05/19/03	1	200.7

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-2A Metal

Applied P & Ch Laboratory

Initial and Continuing Calibration Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1481E
		Instrument:	GFAA-E	Method:	200.9
Batch No.(s):	03M1481				

Analysis Date: **05/19/03**

Concentration Units: **UG/L**

		ICV	11:42		CCV	12:59		CCV	13:43				
#	Analyte	True	Result	%R	True	Result	%R	True	Result	%R	True	Result	%R
1	Arsenic	50.0	49.90	99.8	50.0	51.80	103.6	50.0	45.90	91.8			

(a) ICV Control Limit 95-105%; For Hg, 90-110%.

(b) CCV Control Limit 90-110%; For Hg, 80-120%.

FORM-2A Metal

Applied P & Ch Laboratory

Initial and Continuing Calibration Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Instrument:	ICP -M	Method:	200.9
Batch No.(s):	03M1479				

Analysis Date: **05/19/03** Concentration Units: **UG/L**

#	Analyte	ICV True	10:47 Result	%R	CCV True	11:03 Result	%R	CCV True	11:20 Result	%R	CCV True	12:03 Result	%R
1	Aluminum	10000.0	9942.63	99.4	5000.0	5186.30	103.7	5000.0	5183.33	103.7	5000.0	5137.05	102.7
2	Antimony	4000.0	3865.24	96.6	2000.0	1984.22	99.2	2000.0	1970.94	98.5	2000.0	1986.03	99.3
3	Arsenic	1000.0	968.45	96.8	500.0	492.46	98.5	500.0	483.44	96.7	500.0	479.30	95.9
4	Barium	10000.0	10121.48	101.2	5000.0	5190.82	103.8	5000.0	5164.94	103.3	5000.0	5145.31	102.9
5	Beryllium	1000.0	1006.01	100.6	500.0	503.37	100.7	500.0	496.21	99.2	500.0	499.51	99.9
6	Cadmium	2000.0	1964.79	98.2	1000.0	1011.86	101.2	1000.0	998.52	99.9	1000.0	1011.10	101.1
7	Calcium	100000.0	99466.23	99.5	50000.0	51783.51	103.6	50000.0	51092.38	102.2	50000.0	50771.66	101.5
8	Chromium	1000.0	993.70	99.4	500.0	514.89	103.0	500.0	513.12	102.6	500.0	508.89	101.8
9	Cobalt	4000.0	3926.42	98.2	2000.0	2052.61	102.6	2000.0	2029.85	101.5	2000.0	2048.30	102.4
10	Copper	4000.0	4023.37	100.6	2000.0	2023.49	101.2	2000.0	2006.89	100.3	2000.0	2004.97	100.2
11	Iron	10000.0	9979.55	99.8	5000.0	5224.25	104.5	5000.0	5170.26	103.4	5000.0	5115.08	102.3
12	Lead	1000.0	979.95	98.0	500.0	514.71	102.9	500.0	515.79	103.2	500.0	514.50	102.9
13	Magnesium	50000.0	50297.12	100.6	25000.0	25824.79	103.3	25000.0	25565.84	102.3	25000.0	25621.85	102.5
14	Manganese	4000.0	3930.59	98.3	2000.0	2089.43	104.5	2000.0	2060.93	103.0	2000.0	2064.55	103.2
15	Nickel	4000.0	3906.29	97.7	2000.0	2052.34	102.6	2000.0	2025.77	101.3	2000.0	2041.31	102.1
16	Potassium	30000.0	30076.74	100.3	15000.0	15687.15	104.6	15000.0	15649.81	104.3	15000.0	15661.93	104.4
17	Selenium	1000.0	982.27	98.2	500.0	514.08	102.8	500.0	513.02	102.6	500.0	513.23	102.6
18	Silver	2000.0	1992.19	99.6	1000.0	1011.35	101.1	1000.0	1002.83	100.3	1000.0	997.43	99.7
19	Sodium	200000.0	203256.44	101.6	100000.0	100032.27	100.0	100000.0	100383.64	100.4	100000.0	99331.55	99.3
20	Thallium	1000.0	958.79	95.9	500.0	499.99	100.0	500.0	486.32	97.3	500.0	486.20	97.2
21	Vanadium	4000.0	4057.15	101.4	2000.0	2054.64	102.7	2000.0	2048.07	102.4	2000.0	2026.26	101.3
22	Zinc	4000.0	3940.91	98.5	2000.0	2029.85	101.5	2000.0	2006.08	100.3	2000.0	2007.80	100.4
23	Molybdenum	4000.0	3960.32	99.0	2000.0	2036.03	101.8	2000.0	2022.03	101.1	2000.0	2012.12	100.6

(a) ICV Control Limit 95-105%; For Hg, 90-110%.

(b) CCV Control Limit 90-110%; For Hg, 80-120%.

FORM-2A Metal

Applied P & Ch Laboratory

Initial and Continuing Calibration Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Instrument:	ICP -M	Method:	200.9
Batch No.(s):	03M1479				

Analysis Date: **05/19/03** Concentration Units: **UG/L**

#	Analyte	CCV True	12:45 Result	%R	CCV True	13:23 Result	%R	CCV True	14:24 Result	%R	CCV True	14:33 Result	%R
1	Aluminum	5000.0	5291.99	105.8	5000.0	5024.51	100.5	5000.0	5178.42	103.6	5000.0	5178.71	103.6
2	Antimony	2000.0	1999.24	100.0	2000.0	2097.84	104.9	2000.0	2027.46	101.4	2000.0	2015.53	100.8
3	Arsenic	500.0	474.69	94.9	500.0	475.72	95.1	500.0	512.10	102.4	500.0	498.02	99.6
4	Barium	5000.0	5270.22	105.4	5000.0	5085.19	101.7	5000.0	5260.42	105.2	5000.0	5226.44	104.5
5	Beryllium	500.0	513.49	102.7	500.0	535.34	107.1	500.0	511.61	102.3	500.0	500.50	100.1
6	Cadmium	1000.0	1042.62	104.3	1000.0	1090.53	109.1	1000.0	1017.83	101.8	1000.0	999.35	99.9
7	Calcium	50000.0	51780.12	103.6	50000.0	48390.33	96.8	50000.0	50641.54	101.3	50000.0	50368.44	100.7
8	Chromium	500.0	516.68	103.3	500.0	477.68	95.5	500.0	513.74	102.7	500.0	512.57	102.5
9	Cobalt	2000.0	2105.72	105.3	2000.0	2175.60	108.8	2000.0	2050.50	102.5	2000.0	2018.17	100.9
10	Copper	2000.0	2052.41	102.6	2000.0	2053.48	102.7	2000.0	2068.78	103.4	2000.0	2039.05	102.0
11	Iron	5000.0	5217.67	104.4	5000.0	4853.22	97.1	5000.0	5154.39	103.1	5000.0	5163.20	103.3
12	Lead	500.0	515.22	103.0	500.0	515.16	103.0	500.0	513.71	102.7	500.0	513.15	102.6
13	Magnesium	25000.0	26395.05	105.6	25000.0	26021.38	104.1	25000.0	26027.66	104.1	25000.0	25788.71	103.2
14	Manganese	2000.0	2089.66	104.5	2000.0	2105.94	105.3	2000.0	2046.25	102.3	2000.0	2056.98	102.8
15	Nickel	2000.0	2100.81	105.0	2000.0	2183.16	109.2	2000.0	2048.09	102.4	2000.0	2004.78	100.2
16	Potassium	15000.0	15041.49	100.3	15000.0	14256.23	95.0	15000.0	15211.34	101.4	15000.0	15626.62	104.2
17	Selenium	500.0	514.40	102.9	500.0	505.01	101.0	500.0	521.06	104.2	500.0	524.81	105.0
18	Silver	1000.0	1017.12	101.7	1000.0	959.20	95.9	1000.0	1012.70	101.3	1000.0	1005.46	100.5
19	Sodium	100000.0	102003.28	102.0	100000.0	92745.48	92.7	100000.0	99983.66	100.0	100000.0	99935.09	99.9
20	Thallium	500.0	493.14	98.6	500.0	482.94	96.6	500.0	505.82	101.2	500.0	515.24	103.0
21	Vanadium	2000.0	2058.60	102.9	2000.0	1871.05	93.6	2000.0	2052.06	102.6	2000.0	2046.02	102.3
22	Zinc	2000.0	2064.97	103.2	2000.0	2090.83	104.5	2000.0	2035.71	101.8	2000.0	2008.46	100.4
23	Molybdenum	2000.0	2066.27	103.3	2000.0	2038.88	101.9	2000.0	2046.12	102.3	2000.0	2022.81	101.1

(a) ICV Control Limit 95-105%; For Hg, 90-110%.

(b) CCV Control Limit 90-110%; For Hg, 80-120%.

FORM-2A Metal

Applied P & Ch Laboratory

Initial and Continuing Calibration Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Instrument:	ICP -M	Method:	200.9
Batch No.(s):	03M1479				

Analysis Date: **05/19/03** Concentration Units: **UG/L**

#	Analyte	CCV True	15:25 Result	%R	True	Result	%R	True	Result	%R	True	Result	%R
1	Aluminum	5000.0	5326.60	106.5									
2	Antimony	2000.0	1927.89	96.4									
3	Arsenic	500.0	454.73	90.9									
4	Barium	5000.0	5304.25	106.1									
5	Beryllium	500.0	487.08	97.4									
6	Cadmium	1000.0	966.26	96.6									
7	Calcium	50000.0	51259.17	102.5									
8	Chromium	500.0	518.08	103.6									
9	Cobalt	2000.0	1968.15	98.4									
10	Copper	2000.0	2005.97	100.3									
11	Iron	5000.0	5404.95	108.1									
12	Lead	500.0	494.04	98.8									
13	Magnesium	25000.0	25567.90	102.3									
14	Manganese	2000.0	2003.58	100.2									
15	Nickel	2000.0	1927.31	96.4									
16	Potassium	15000.0	16488.47	109.9									
17	Selenium	500.0	515.14	103.0									
18	Silver	1000.0	1010.77	101.1									
19	Sodium	100000.0	104099.81	104.1									
20	Thallium	500.0	486.18	97.2									
21	Vanadium	2000.0	2076.81	103.8									
22	Zinc	2000.0	1986.03	99.3									
23	Molybdenum	2000.0	2014.74	100.7									

(a) ICV Control Limit 95-105%; For Hg, 90-110%.

(b) CCV Control Limit 90-110%; For Hg, 80-120%.

FORM-2B Metal

Applied P & Ch Laboratory

CRDL Standard For AA and ICP

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Instrument:	ICP -M	Method:	200.9
Batch No.(s):	03M1479				

Analysis Date: **05/19/03** Concentration Units: **UG/L**

#	Analyte	True	10:54 Found	R%	Time Found	R%
1	Aluminum	200.0	208.50	104.3		
2	Antimony	20.0	24.55	122.7		
3	Arsenic	20.0	21.36	106.8		
4	Barium	10.0	11.82	118.2		
5	Beryllium	4.0	4.87	121.6		
6	Cadmium	5.0	4.80	96.0		
7	Calcium	1000.0	1290.84	129.1		
8	Chromium	10.0	10.94	109.4		
9	Cobalt	20.0	23.87	119.3		
10	Copper	10.0	5.42	54.2		
11	Iron	50.0	53.95	107.9		
12	Lead	10.0	9.95	99.5		
13	Magnesium		-26.28			
14	Manganese	10.0	11.55	115.5		
15	Nickel	20.0	23.99	120.0		
16	Potassium		95.60			
17	Selenium	10.0	8.65	86.5		
18	Silver	10.0	11.20	112.0		
19	Sodium		87.83			
20	Thallium	10.0	6.20	62.0		
21	Vanadium	10.0	10.67	106.7		
22	Zinc	20.0	19.83	99.1		
23	Molybdenum	15.0	16.36	109.0		

FORM-3 Metal

Applied P & Ch Laboratory

Metal ICB/CCB Summary

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1481E
		Instrument:	GFAA-E	Method:	200.9
Batch No.(s):	03M1481				

Analysis Date: **05/19/03**

Concentration Units: **UG/L**

#	Analyte	ICB Result	11:48 C	CCB Result	13:05 C	CCB Result	13:49 C	CCB Result	Time C	CCB Result	Time C
1	Arsenic	1.80	U	1.80	U	1.80	U				

FORM-3 Metal

Applied P & Ch Laboratory

Metal ICB/CCB Summary

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Instrument:	ICP -M	Method:	200.9
Batch No.(s):	03M1479				

Analysis Date: **05/19/03** Concentration Units: **UG/L**

#	Analyte	ICB Result	10:51 C	CCB Result	11:08 C	CCB Result	11:23 C	CCB Result	12:06 C	CCB Result	12:48 C
1	Aluminum	6.90	U	6.90	U	6.90	U	6.90	U	6.90	U
2	Antimony	2.40	U	2.40	U	2.40	U	3.16	B	3.85	B
3	Arsenic	1.80	U	3.38	B	1.80	U	1.80	U	1.80	U
4	Barium	1.57	B	0.89	U	0.89	U	0.89	U	0.89	U
5	Beryllium	0.89	B	0.40	B	0.26	B	0.31	B	0.21	B
6	Cadmium	0.16	U	0.16	U	0.16	U	-0.38	B	-0.35	B
7	Calcium	193.40	B	198.81	B	121.00	U	121.00	U	121.00	U
8	Chromium	0.26	U	-0.28	B	0.26	U	0.33	B	0.45	B
9	Cobalt	1.27	B	0.46	U	0.55	B	0.46	U	0.46	U
10	Copper	1.90	U	-1.98	B	1.90	U	1.90	U	1.90	U
11	Iron	7.70	U	7.70	U	7.70	U	7.70	U	7.70	U
12	Lead	0.90	U	-1.03	B	0.90	U	0.90	U	0.90	U
13	Magnesium	-23.89	B	64.79	B	19.00	U	-20.51	B	19.00	U
14	Manganese	1.50	B	0.63	U	0.96	B	0.67	B	0.79	B
15	Nickel	1.58	B	0.62	B	0.44	U	0.44	U	0.44	U
16	Potassium	82.49	B	84.79	B	71.39	B	100.60	B	80.71	B
17	Selenium	-3.49	B	1.82	B	1.80	U	1.80	U	1.94	B
18	Silver	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U
19	Sodium	253.30	B	189.00	U	189.00	U	189.00	U	211.17	B
20	Thallium	-3.16	B	-2.80	B	1.80	U	2.17	B	3.57	B
21	Vanadium	1.04	B	0.53	U	-0.64	B	0.53	U	0.53	U
22	Zinc	1.30	U	1.30	U	1.30	U	1.30	U	1.30	U
23	Molybdenum	3.57	B	0.95	B	0.98	B	0.86	B	0.48	U

FORM-3 Metal

Applied P & Ch Laboratory

Metal ICB/CCB Summary

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Instrument:	ICP -M	Method:	200.9
Batch No.(s):	03M1479				

Analysis Date: **05/19/03** Concentration Units: **UG/L**

#	Analyte	CCB Result	13:27 C	CCB Result	14:28 C	CCB Result	14:36 C	CCB Result	15:28 C	CCB Result	Time C
1	Aluminum	26.21	B	6.90	U	6.90	U	6.90	U		
2	Antimony	4.45	B	2.40	U	2.40	U	2.40	U		
3	Arsenic	2.38	B	3.17	B	1.80	U	1.80	U		
4	Barium	0.89	U	1.43	B	0.89	U	0.89	U		
5	Beryllium	0.22	B	0.62	B	0.25	B	0.19	U		
6	Cadmium	-0.34	B	0.31	B	0.16	U	0.46	B		
7	Calcium	121.00	U	-323.19		121.00	U	-523.88			
8	Chromium	0.73	B	0.26	U	-0.93	B	0.26	U		
9	Cobalt	0.46	U	0.78	B	0.46	B	0.86	B		
10	Copper	-3.17	B	1.90	U	1.90	U	1.90	U		
11	Iron	7.70	U	7.70	U	7.70	U	13.43	B		
12	Lead	1.69	B	-1.05	B	0.90	U	-2.92	B		
13	Magnesium	31.02	B	-58.36	B	19.00	U	73.33	B		
14	Manganese	0.67	B	1.13	B	0.63	U	0.63	U		
15	Nickel	0.44	U	0.55	B	0.44	U	0.44	U		
16	Potassium	95.67	B	129.26	B	130.28	B	134.69	B		
17	Selenium	6.39	B	-2.73	B	1.80	U	-9.06	B		
18	Silver	0.43	U	2.15	B	0.72	B	1.31	B		
19	Sodium	739.40	B	731.19	B	189.27	B	553.68	B		
20	Thallium	1.80	U	-10.32		-2.15	B	-6.08	B		
21	Vanadium	0.53	U	0.53	U	-1.70	B	0.53	U		
22	Zinc	1.30	U	1.30	U	1.30	U	1.30	U		
23	Molybdenum	0.48	U	2.03	B	0.78	B	2.08	B		

FORM-4 Metal

Applied P & Ch Laboratory

ICP Interference Check Sample

Client Name: GEOFON, Inc.
Project Name: JPL GW Mon-2Q03

Project No: 04-4428.10
Service ID: 033205
ICP ID Number: ICP -M

Lab Code: APCL
Sequence No.: 03M1479M

Batch No.(s): 03M1479

Analysis Date: **05/19/03**

Concentration Units: **UG/L**

#	Analyte	Expected Sol. A	Expected Sol. AB	Initial 10:57 Sol. A	Found 11:00 Sol. AB	%R	Final 15:13 Sol. A	Found 15:16 Sol. AB	%R
1	Aluminum	500000	500000	479307	465835.4	93.2	497329	477029.7	95.4
2	Antimony	0	1000	12	903.8	90.4	-5	909.8	91.0
3	Arsenic	0	1000	-9	879.6	88.0	10	859.9	86.0
4	Barium	0	500	5	510.4	102.1	4	535.4	107.1
5	Beryllium	0	500	0	476.7	95.3	0	478.6	95.7
6	Cadmium	0	1000	-1	915.1	91.5	0	906.3	90.6
7	Calcium	500000	500000	507231	473687.0	94.7	514345	488928.9	97.8
8	Chromium	0	500	9	487.6	97.5	5	506.1	101.2
9	Cobalt	0	500	1	456.0	91.2	4	454.2	90.8
10	Copper	0	500	2	465.4	93.1	8	482.3	96.5
11	Iron	200000	200000	188868	178980.3	89.5	201161	188314.7	94.2
12	Lead	0	1000	2	904.4	90.4	-16	895.5	89.6
13	Magnesium	500000	500000	485564	464614.2	92.9	492704	463808.6	92.8
14	Manganese	0	500	0	464.3	92.9	0	472.7	94.5
15	Nickel	0	1000	3	874.1	87.4	0	853.7	85.4
16	Potassium	0	0	162	169.8		248	237.9	
17	Selenium	0	1000	-15	896.6	89.7	79	1038.8	103.9
18	Silver	0	1000	-4	963.2	96.3	-8	991.6	99.2
19	Sodium	0	0	-7	55.0		1445	1608.3	
20	Thallium	0	1000	-9	832.3	83.2	-6	872.3	87.2
21	Vanadium	0	500	0	471.0	94.2	6	497.7	99.5
22	Zinc	0	1000	10	929.0	92.9	21	942.3	94.2
23	Molybdenum	0	1000	-2	890.8	89.1	-13	902.3	90.2

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 200.9

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	33205
Project ID:	JPL GW Mon-2Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03M1481E		
MS Filename:	-	Date Analyzed:	051903	Time Analyzed:	12:33
MSD Filename:	-	Date Analyzed:	051903	Time Analyzed:	12:39
MS Sample No:	**DUPE-7-2Q03**	Sample Lab ID:	03-3205-1		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
ARSENIC	μg/L	50	0	40.4	81	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ARSENIC	μg/L	50	53.6	107	28 *	20	75-125
# of Out-of-control				0	1		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 200.7

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	33205
Project ID:	JPL GW Mon-2Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03M1479M		
MS Filename:	-	Date Analyzed:	051903	Time Analyzed:	11:48
MSD Filename:	-	Date Analyzed:	051903	Time Analyzed:	11:52
MS Sample No:	**01GP-03-1-GW**	Sample Lab ID:	03-3261-1		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
CALCIUM	μg/L	20000	43900	64400	103	75-125
IRON	μg/L	1000	59.3	995	94	75-125
MAGNESIUM	μg/L	10000	54000	63100	91	75-125
POTASSIUM	μg/L	5000	24400	31300	138 *	75-125
SODIUM	μg/L	40000	1200000	1390000	475 *	75-125
# of Out-of-control					2	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CALCIUM	μg/L	20000	62200	92	11	20	75-125
IRON	μg/L	1000	967	91	3	20	75-125
MAGNESIUM	μg/L	10000	62800	88	3	20	75-125
POTASSIUM	μg/L	5000	31400	140 *	1	20	75-125
SODIUM	μg/L	40000	1370000	425 *	11	20	75-125
# of Out-of-control				2	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-6 Metal

Applied P & Ch Laboratory

Duplicates Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1481E
		Batch No.:	03M1481	Method:	200.9
Spike Sample No.	03-3205-01	Matrix:	WATER	Instrument:	GFAA-E
Client Sample No.	**DUPE-7-2Q03**	% Solid:	0.00	Analysis Date:	05/19/03

Concentration Unit: **UG/L**

#	Analyte	12:13 Sample(s)	C	12:20 Duplicate	C	RPD(%)	Q
1	Arsenic	0.2000	U	0.6000	U		

FORM-5B Metal

Applied P & Ch Laboratory

Post Digest Spike Sample Recovery

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1481E
		Batch No.:	03M1481	Method:	200.9
Spike Sample No. :	03-3205-01	Matrix:	WATER	Instrument:	GFAA-E
Client Sample No.:	**DUPE-7-2Q03**	Analysis Date:	05/19/03		

Concentration Units: **UG/L**

#	Analyte	Spiked Sample Result(SSR)	12:46 C	Sample Result(SR)	12:13 C	Spike Added(SA)	% Rec.	Control Limit	Q
1	Arsenic	50.3000		0.2000	U	50.00	100.6	75-125	

FORM-5B Metal

Applied P & Ch Laboratory

Post Digest Spike Sample Recovery

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Batch No.:	03M1479	Method:	200.9
Spike Sample No. :	03-3261-01	Matrix:	WATER	Instrument:	ICP -M
Client Sample No.:	**01GP-03-1-GW**	Analysis Date:	05/19/03		

Concentration Units: **UG/L**

#	Analyte	Spiked Sample Result(SSR)	11:56 C	Sample Result(SR)	11:37 C	Spike Added(SA)	% Rec.	Control Limit	Q
1	Aluminum	1939.8334		32.8771	B	2000.00	95.3	75-125	
2	Antimony	467.0731		2.0862	U	500.00	93.4	75-125	
3	Arsenic	479.4828		5.1252		500.00	94.9	75-125	
4	Barium	4201.4277		43.5452		4000.00	103.9	75-125	
5	Beryllium	184.7050		0.0649	U	200.00	92.4	75-125	
6	Cadmium	244.7721		-0.1758	U	250.00	97.9	75-125	
7	Calcium	61987.8164		43893.3477		20000.00	90.5	75-125	
8	Chromium	966.4279		11.0826		1000.00	95.5	75-125	
9	Cobalt	984.0964		0.7971	B	1000.00	98.3	75-125	
10	Copper	1011.2004		29.0796		1000.00	98.2	75-125	
11	Iron	959.9175		59.3112		1000.00	90.1	75-125	
12	Lead	2890.6616		2.8600	B	3000.00	96.3	75-125	
13	Magnesium	62767.4961		53992.8125		10000.00	87.7		
14	Manganese	913.6199		17.3223		1000.00	89.6	75-125	
15	Nickel	957.6406		3.5161	B	1000.00	95.4	75-125	
16	Potassium	30683.5566		24420.0547		5000.00	125.3		
17	Selenium	462.2114		4.6063	B	500.00	91.5	75-125	
18	Silver	957.3848		0.1659	U	1000.00	95.7	75-125	
19	Sodium	1361943.8750		1338976.1250		40000.00	57.4		
20	Thallium	439.7741		1.9031	B	500.00	87.6	75-125	
21	Vanadium	1978.7847		68.2877		2000.00	95.5	75-125	
22	Zinc	492.9264		30.5689		500.00	92.5	75-125	
23	Molybdenum	2020.7742		7.2141		2000.00	100.7	75-125	

FORM-6 Metal

Applied P & Ch Laboratory

Duplicates Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Batch No.:	03M1479	Method:	200.9
Spike Sample No.	03-3261-01	Matrix:	WATER	Instrument:	ICP -M
Client Sample No.	**01GP-03-1-GW**	% Solid:	0.00	Analysis Date:	05/19/03

Concentration Unit: **UG/L**

#	Analyte	11:37 Sample(s)	C	11:41 Duplicate	C	RPD(%)	Q
1	Aluminum	32.8771	B	25.0282	B	27.1	
2	Antimony	2.0862	U	0.3174	U		
3	Arsenic	5.1252		5.6617		9.9	
4	Barium	43.5452		39.6019		9.5	
5	Beryllium	0.0649	U	-0.0053	U		
6	Cadmium	-0.1758	U	-0.0905	U		
7	Calcium	43893.3477		41694.7930		5.1	
8	Chromium	11.0826		9.5604		14.7	
9	Cobalt	0.7971	B	0.1237	U	200.0	
10	Copper	29.0796		2.2202	B	171.6	*
11	Iron	59.3112		25.3966	B	80.1	
12	Lead	2.8600	B	1.9279	B	38.9	
13	Magnesium	53992.8125		51966.1133		3.8	
14	Manganese	17.3223		15.4543		11.4	
15	Nickel	3.5161	B	1.8132	B	63.9	
16	Potassium	24420.0547		23802.9004		2.6	
17	Selenium	4.6063	B	3.7502	B	20.5	
18	Silver	0.1659	U	-0.3920	U		
19	Sodium	1338976.1250		1272147.7500		5.1	
20	Thallium	1.9031	B	-0.8939	U	200.0	
21	Vanadium	68.2877		66.1625		3.2	
22	Zinc	30.5689		5.6196	B	137.9	*
23	Molybdenum	7.2141		5.1015		34.3	

FORM-7 Metal

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 200.9

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	33205
Project ID:	JPL GW Mon-2Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03M1481E		
LCS Filename:	-	Date Analyzed:	051903	Time Analyzed:	12:00
LCSD Filename:	-	Date Analyzed:	051903	Time Analyzed:	12:07

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
ARSENIC	μg/L	50	0	53.2	106	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ARSENIC	μg/L	50	53.2	106	0	20	80-120
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-7 Metal

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 200.7

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	33205
Project ID:	JPL GW Mon-2Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03M1479M		
LCS Filename:	-	Date Analyzed:	051903	Time Analyzed:	11:30
LCSD Filename:	-	Date Analyzed:	051903	Time Analyzed:	11:34

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
CALCIUM	μg/L	20000	0	21300	107	80-120
IRON	μg/L	1000	0	1040	104	80-120
MAGNESIUM	μg/L	10000	0	10600	106	80-120
POTASSIUM	μg/L	5000	0	5130	103	80-120
SODIUM	μg/L	40000	0	39400	99	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CALCIUM	μg/L	20000	21300	107	0	20	80-120
IRON	μg/L	1000	1020	102	2	20	80-120
MAGNESIUM	μg/L	10000	10300	103	3	20	80-120
POTASSIUM	μg/L	5000	5200	104	1	20	80-120
SODIUM	μg/L	40000	38900	97	2	20	80-120
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

FORM-9 Metal

Applied P & Ch Laboratory

Serial Dilution

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1481E
		Batch No.:	03M1481	Method:	200.9
Dilution Sample No.:	03-3205-01	Matrix:	WATER	Instrument:	GFAA-E
Client Sample No.:	**DUPE-7-2Q03**	Analysis Date:	05/19/03		

Concentration Units: **UG/L**

#	Analyte	Initial Sample Results(I)	12:13 C	Serial Dilut Results(S)	12:26 C	% Diff.	Q
1	Arsenic	0.20	U	-3.50	U		

FORM-9 Metal

Applied P & Ch Laboratory

Serial Dilution

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Batch No.:	03M1479	Method:	200.9
Dilution Sample No.:	03-3261-01	Matrix:	WATER	Instrument:	ICP -M
Client Sample No.:	**01GP-03-1-GW**	Analysis Date:	05/19/03		

Concentration Units: **UG/L**

#	Analyte	Initial Sample Results(I)	11:37 C	Serial Dilut Results(S)	11:44 C	% Diff.	Q
1	Aluminum	32.88	B	80.03	B	143.4	
2	Antimony	2.09	U	-3.78	U		
3	Arsenic	5.13		12.25	B	139.0	
4	Barium	43.55		43.81	B	0.6	
5	Beryllium	0.06	U	-0.26	U		
6	Cadmium	-0.18	U	-1.83	U		
7	Calcium	43893.35		47096.86		7.3	
8	Chromium	11.08		12.26	B	10.7	
9	Cobalt	0.80	B	-0.58	U	100.0	
10	Copper	29.08		19.87	B	31.7	
11	Iron	59.31		47.36	B	20.2	
12	Lead	2.86	B	6.02	B	110.6	
13	Magnesium	53992.81		59231.34		9.7	
14	Manganese	17.32		18.02	B	4.0	
15	Nickel	3.52	B	1.02	U	100.0	
16	Potassium	24420.05		21119.08		13.5	E
17	Selenium	4.61	B	13.48	B	192.7	
18	Silver	0.17	U	-0.63	U		
19	Sodium	1338976.13		1226951.88		8.4	
20	Thallium	1.90	B	3.49	U	100.0	
21	Vanadium	68.29		72.68		6.4	
22	Zinc	30.57		34.68	B	13.5	
23	Molybdenum	7.21		3.88	B	46.2	

FORM-13 Metal

Applied P & Ch Laboratory

Preparation Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1481E
		Batch No.:	03M1481	Method:	200.9
Preparation Matrix:	WATER	Instrument:	GFAA-E		

#	Client Sample No.	APCL Sample No.	Preparation Date	Weight (gram)	Volume (ml)
1	DUPE-7-2Q03	03-3205-01DM	05/19/03		50.0
2	EB-13-5/13/03	03-3205-02	05/19/03		50.0
3	MW-18-1	03-3205-03	05/19/03		50.0
4	MW-18-2	03-3205-04	05/19/03		50.0
5	MW-18-3	03-3205-05	05/19/03		50.0
6	MW-18-4	03-3205-06	05/19/03		50.0
7	MW-18-5	03-3205-07	05/19/03		50.0
8		03M1481MB	05/19/03		50.0
9		03M1481LCS	05/19/03		50.0
10		03M1481LCSD	05/19/03		50.0
11	DUPE-7-2Q03 Dup.	03M1481MD	05/19/03		50.0
12	DUPE-7-2Q03 MS	03M1481MS	05/19/03		50.0
13	DUPE-7-2Q03 MSD	03M1481MSD	05/19/03		50.0

FORM-13 Metal

Applied P & Ch Laboratory

Preparation Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Batch No.:	03M1479	Method:	200.9
Preparation Matrix:	WATER	Instrument:	ICP -M		

#	Client Sample No.	APCL Sample No.	Preparation Date	Weight (gram)	Volume (ml)
1	DUPE-7-2Q03	03-3205-01	05/19/03		50.0
2	EB-13-5/13/03	03-3205-02	05/19/03		50.0
3	MW-18-1	03-3205-03	05/19/03		50.0
4	MW-18-2	03-3205-04	05/19/03		50.0
5	MW-18-3	03-3205-05	05/19/03		50.0
6	MW-18-4	03-3205-06	05/19/03		50.0
7	MW-18-5	03-3205-07	05/19/03		50.0
8	Tap Water 1373 White	03-3234-01	05/19/03		50.0
9	Tap Water 2104 Beech	03-3234-02	05/19/03		50.0
10	01GP-03-1-GW	03-3261-01DM	05/19/03		50.0
11	01GP-04-1-GW	03-3261-02	05/19/03		50.0
12	01GP-10-1-GW	03-3261-03	05/19/03		50.0
13	01GP-11-1-GW	03-3261-04	05/19/03		50.0
14	01GP-13-1-GW	03-3261-05	05/19/03		50.0
15	01GP-13-3-GW	03-3261-06	05/19/03		50.0
16	01GP-14-1-GW	03-3261-07	05/19/03		50.0
17	01GP-15-1-GW	03-3261-08	05/19/03		50.0
18	01GP-11-1-GW	03-3276-01	05/19/03		50.0
19	01GP-12-1-GW	03-3276-02	05/19/03		50.0
20	32-MW05-WG2	02-6776-01	05/19/03		50.0
21		03M1479MB	05/19/03		50.0
22		03M1479LCS	05/19/03		50.0
23		03M1479LCSD	05/19/03		50.0
24	01GP-03-1-GW Dup.	03M1479MD	05/19/03		50.0
25	01GP-03-1-GW MS	03M1479MS	05/19/03		50.0
26	01GP-03-1-GW MSD	03M1479MSD	05/19/03		50.0

FORM-14 Metal

Applied P & Ch Laboratory

Analysis Run Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1481E
		Instrument:	GFAA-E	Method:	200.9
Batch No.(s):	03M1481	Start Date:	05/19/03	End Date:	05/19/03

#	APCL Sample No.	D/F	Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	Mo	Sr	Ti	Sn	Li	B	Si
1	AS Position 002	1.00	10:58			√																											
2	AS Position 001	1.00	11:03			√																											
3	Calib. Blank	1.00	11:07			√																											
4	1/2 STD1 1472A	1.00	11:13			√																											
5	STD1 1472A	1.00	11:19			√																											
6	STD2 1472B	1.00	11:25			√																											
7	STD3 1472C	1.00	11:32			√																											
8	ICV A1474	1.00	11:42			√																											
9	ICB	1.00	11:48			√																											
10	M-BL 03M1481	1.00	11:54			√																											
11	LCS-03M1481	1.00	12:00			√																											
12	LCSD-03M1481	1.00	12:07			√																											
13	3205-1 S F=1	1.00	12:13			√																											
14	3205-1 D F=1	1.00	12:20			√																											
15	3205-1 1/5 F=5	5.00	12:26			√																											
16	3205-1 MS F=1	1.00	12:33			√																											
17	3205-1 MSD F=1	1.00	12:39			√																											
18	3205-1 PS F=1	1.00	12:46			√																											
19	3205-2 F=1	1.00	12:52			√																											
20	CCV A1474	1.00	12:59			√																											
21	CCB	1.00	13:05			√																											
22	3205-3 F=1	1.00	13:11			√																											
23	3205-4 F=1	1.00	13:18			√																											
24	3205-5 F=1	1.00	13:24			√																											
25	3205-6 F=1	1.00	13:30			√																											
26	3205-7 F=1	1.00	13:36			√																											
27	CCV A1474	1.00	13:43			√																											
28	CCB	1.00	13:49			√																											

FORM-14 Metal

Applied P & Ch Laboratory

Analysis Run Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Instrument:	ICP -M	Method:	200.9
Batch No.(s):	03M1479	Start Date:	05/19/03	End Date:	05/19/03

#	APCL Sample No.	D/F	Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	Mo	Sr	Ti	Sn	Li	B	Si
1	Calib Blank	1.00	10:32	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
2	STD1 1423A	1.00	10:36	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
3	STD2 1423B	1.00	10:40	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
4	STD3 1423C	1.00	10:43	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
5	ICV 1447A	1.00	10:47	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
6	ICB	1.00	10:51	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
7	CRI A1432	1.00	10:54	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
8	ICSA 1441	1.00	10:57	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
9	ICSAB 1443	1.00	11:00	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
10	CCV 1447B	1.00	11:03	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
11	CCB	1.00	11:08	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
12	Calib Blank	1.00	11:17	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
13	CCV 1447B	1.00	11:20	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
14	CCB	1.00	11:23	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
15	M-BL 03M1479 W	1.00	11:26	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
16	LCS-03M1479	1.00	11:30	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
17	LCSD-03M1479	1.00	11:34	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
18	3261-1 S F=1	1.00	11:37	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
19	3261-1 D F=1	1.00	11:41	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
20	3261-1 1/5 F=5	5.00	11:44	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
21	3261-1 MS F=1	1.00	11:48	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
22	3261-1 MSD F=1	1.00	11:52	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
23	3261-1 PS F=1	1.00	11:56	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
24	3261-1 F=10	10.00	11:59	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
25	CCV 1447B	1.00	12:03	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
26	CCB	1.00	12:06	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
27	3261-2 F=1	1.00	12:09	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
28	3261-2 F=10	10.00	12:12	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
29	3261-3 F=1	1.00	12:16	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
30	3261-3 F=15	15.00	12:19	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
31	3261-4 F=1	1.00	12:23	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
32	3261-4 F=10	10.00	12:27	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
33	3261-5 F=1	1.00	12:30	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
34	3261-5 F=10	10.00	12:34	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
35	3261-6 F=1	1.00	12:37	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
36	3261-6 F=10	10.00	12:41	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
37	CCV 1447B	1.00	12:45	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
38	CCB	1.00	12:48	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
39	3261-7 F=1	1.00	12:52	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
40	3261-7 F=10	10.00	12:55	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						

FORM-14 Metal

Applied P & Ch Laboratory

Analysis Run Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL GW Mon-2Q03	Service ID:	033205	Sequence No.:	03M1479M
		Instrument:	ICP -M	Method:	200.9
Batch No.(s):	03M1479	Start Date:	05/19/03	End Date:	05/19/03

#	APCL Sample No.	D/F	Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	Mo	Sr	Ti	Sn	Li	B	Si
41	3261-8 F=1	1.00	12:59	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
42	3261-8 F=10	10.00	13:02	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
43	3276-1 F=1	1.00	13:06	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
44	3276-1 F=10	10.00	13:09	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
45	3276-2 F=1	1.00	13:13	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
46	3276-2 F=10	10.00	13:16	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
47	3205-1 F=1	1.00	13:20	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
48	CCV 1447B	1.00	13:23	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
49	CCB	1.00	13:27	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
50	3205-2 F=1	1.00	13:30	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
51	3205-3 F=1	1.00	13:33	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
52	3205-4 F=1	1.00	13:37	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
53	3205-5 F=1	1.00	13:40	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
54	3205-6 F=1	1.00	13:44	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
55	3205-7 F=1	1.00	13:47	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
56	3234-1 F=1	1.00	13:51	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
57	Calib Blank	1.00	14:10	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
58	STD1 1423A	1.00	14:14	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
59	STD2 1423B	1.00	14:17	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
60	STD3 1423C	1.00	14:21	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
61	CCV 1447B	1.00	14:24	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
62	CCB	1.00	14:28	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
63	Calib Blank	1.00	14:30	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
64	CCV 1447B	1.00	14:33	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
65	CCB	1.00	14:36	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
66	3205-2 F=1	1.00	14:43	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
67	3205-3 F=1	1.00	14:47	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
68	3205-4 F=1	1.00	14:50	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
69	3205-5 F=1	1.00	14:54	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
70	3205-6 F=1	1.00	14:57	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
71	3205-7 F=1	1.00	15:01	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
72	3234-1 F=1	1.00	15:04	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
73	3234-2 F=1	1.00	15:10	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
74	ICSA 1441	1.00	15:13	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
75	ICSAB 1443	1.00	15:16	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
76	CCV 1447B	1.00	15:25	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
77	CCB	1.00	15:28	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
78	DLC A1427	1.00	15:32	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Metal Digestion (3010/3050) Worksheet

Batch # 03M1481 Matrix: W Method used: 3020A Date: 5/19/03 Digested by: XI Diluted by: _____

Lot #: ASTM Type I water RW1412 HNO_3 1102120 H_2SO_4 _____ HCl _____ H_2O_2 _____

OP #	Type	Samp ID /Lot #	X (g or mL)	$V_{digest}/X = f_1$	$V_f/V_i = f_2$	$V_j'/V_i' = f_3$	$F=f_1f_2f_3$	Note
2145	Method Blank	Bl. Lot: RW1412	50	50/X= 1	/ =	/ =		GFAA / As
2146	LCS1	Bl. Lot: "		/X=	/ =	/ =		
2147	Sample-1	3205 -1		/X=	/ =	/ =		T=95°C
2148	MS1 on S-1	-1		/X=	/ =	/ =		
2149	MS2 on S-1	-1		/X=	/ =	/ =		
2150	Sample 2	-2		/X=	/ =	/ =		
2151	Sample 3	-3		/X=	/ =	/ =		
2152	Sample 4	-4		/X=	/ =	/ =		
2153	Sample 5	-5		/X=	/ =	/ =		
2154	Sample 6	-6		/X=	/ =	/ =		
2155	Sample 7	-7		/X=	/ =	/ =		
2156	Sample 8			/X=	/ =	/ =		
2157	Sample 9			XI /X= 5/19/03	/ =	/ =		
2158	Sample 10			/X=	/ =	/ =		
2159	LCS2	Bl. Lot: RW1412	50	50 /X= 1	/ =	/ =		
2160	Sample 11			/X=	/ =	/ =		
2161	Sample 12			/X=	/ =	/ =		
2162	Sample 13			/X=	/ =	/ =		
2163	Sample 14			/X= XI	/ =	/ =		
2164	Sample 15			/X= 5/19/03	/ =	/ =		
2165	Sample 16			/X=	/ =	/ =		
2166	Sample 17			/X=	/ =	/ =		
2167	Sample 18			/X=	/ =	/ =		
2168	Sample 19			/X=	/ =	/ =		
2169	Sample 20			/X=	/ =	/ =		
2170	Duplicate	3205 -1	50	50/X= 1	/ =	/ =		

Specification of matrix spike and lab control spike

QC Type	Spiked Element *	Spike Stock Solution Lot #	Spike Stock (Rep.) Conc. C_s, μg/mL	Spike Stock Volum Used V_s mL	Spike Level $T'=C_sV_s/V$ ppm or mg/L	Sample Spike T, ppm
MS1	/AsSe/Sb/M_{20}	AA- /AA- /AA- /AA-1473	/ / / 5	/ / 10.5	/ / 1005	
MS2	/AsSe/Sb/M_{20}	AA- /AA- /AA- /AA- "	/ / /	/ / /	/ / /	
LCS1	/AsSe/Sb/M_{20}	AA- /AA- /AA- /AA1471	/ / /	/ / /	/ / /	
LCS2	/AsSe/Sb/M_{20}	AA- /AA- /AA- /AA- "	/ / /	/ / /	/ / /	

* Notation: T – rep. sample spike level. T' – digest solution spike level. $T=f\,T'=C_sV_s/X$. M20 (or Mj) represents 20 (or j) metals, (see STD logbook).
If digest needs dilution for different metals, use dilution worksheet.

APCL form 6-116 April. 03, 1996. Ver. 4.0 No pencil. Use blue pen for record. Use red pen for correction.
Root-File:[CUST.DOC.AA]DIGEST_ROOT.TEX File:[CUST.DOC.AA]DIGEST .TEX

Supervisor Initial 17/1 (W)

Applied P & Ch Laboratory
13780 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Metal Digestion (3010/3050) Worksheet

Batch #03M1479 Matrix: W Method used: 6010A Date: 5/19/03 Digested by: XI Diluted by: YW

Lot #: ASTM Type I water RW1412 HNO_3 1102120 H_2SO_4 _____ HCl 4102050 H_2O_2 _____

OP #	Type	Samp ID /Lot #	X (g or mL)	$V_{digest}/X = f_1$	$V_f/V_i = f_2$	$V_f'/V_i' = f_3$	$F=f_1f_2f_3$	Note
2093	Method Blank	Bl. Lot RW1412	50	50 /X= 1	/ =	/ =		23Me
2094	LCS1	Bl. Lot: "		/X=	/ =	/ =		
2095	Sample-1	3261 —1		/X=	/ =	/ F=10	for Na, T=95°C	
2096	MS1 on S-1	—1		/X=	/ =	/ =		
2097	MS2 on S-1	—1		/X=	/ =	/ =		
2098	Sample 2	—2		/X=	/ =	/ =	F=10	
2099	Sample 3	—3		/X=	/ =	/ =	F=15	
2100	Sample 4	—4		/X=	/ =	/ =	F=10	
2101	Sample 5	—5		/X=	/ =	/ =	F=10	for K, Na
2102	Sample 6	—6		/X=	/ =	/ =	F=10	
2103	Sample 7	—7		/X=	/ =	/ =	F=10	
2104	Sample 8	—8		/X=	/ =	/ =	F=10	
2105	Sample 9	3276 —1		/X=	/ =	/ =	F=10	
2106	Sample 10	—2		/X=	/ =	/ =	F=10	
2107	LCS2	Bl. Lot RW1412		/X=	/ =	/ =		
2108	Sample 11	3205 —1		/X=	/ =	/ =		
2109	Sample 12	—2		/X=	/ =	/ =		
2110	Sample 13	—3		/X=	/ =	/ =		
2111	Sample 14	—4		/X=	/ =	/ =		
2112	Sample 15	—5		/X=	/ =	/ =		
2113	Sample 16	—6		/X=	/ =	/ =		
2114	Sample 17	—7		/X=	/ =	/ =		
2115	Sample 18	3234 —1		/X=	/ =	/ =		
2116	Sample 19	—2		/X=	/ =	/ =		
2117	Sample 20	6776 —1		/X=	9/3 = 3	/ =	3	
2118	Duplicate	3261 —1	50	50 /X= 1	/ =	/ =		

Specification of matrix spike and lab control spike

QC Type	Spiked Element *	Spike Stock Solution Lot #	Spike Stock (Rep.) Conc. C_s, μg/mL	Spike Stock Volum Used V_s mL	Spike Level $T'=C_sV_s/V$ ppm or mg/L	Sample Spike T, ppm
MS1	/AsSe/Sb/M_{20}	AA- /AA- /AA- /AA-1433	/ / / 25	/ / / 2	/ / / 1	
MS2	/AsSe/Sb/M_{20}	AA- /AA- /AA- /AA- "	/ / /	/ / /	/ / /	
LCS1	/AsSe/Sb/M_{20}	AA- /AA- /AA- /AA-1492	/ / /	/ / /	/ / /	
LCS2	/AsSe/Sb/M_{20}	AA- /AA- /AA- /AA- "	/ / /	/ / /	/ / /	

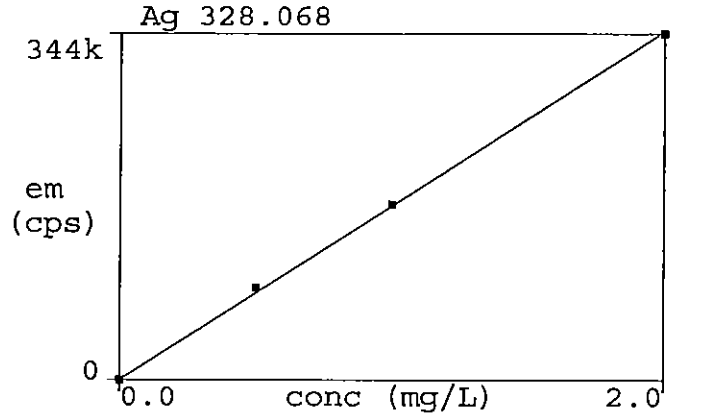
* Notation: T – rep. sample spike level. T' – digest solution spike level. $T=f\,T'=C_sV_s/X$. M20 (or Mj) represents 20 (or j) metals, (see STD logbook).
If digest needs dilution for different metals, use dilution worksheet.

APCL form 6-116 April. 03, 1996. Ver. 4.0 No pencil. Use blue pen for record. Use red pen for correction.
Root-File:[CUST.DOC.AA]DIGEST_ROOT.TEX File:[CUST.DOC.AA]DIGEST .TEX

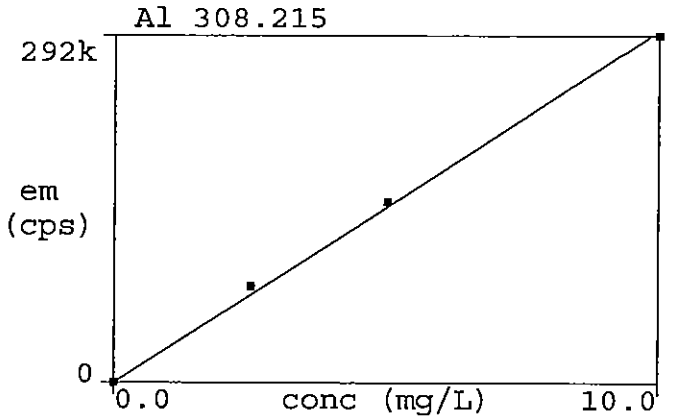
Supervisor Initial YW

Calibration

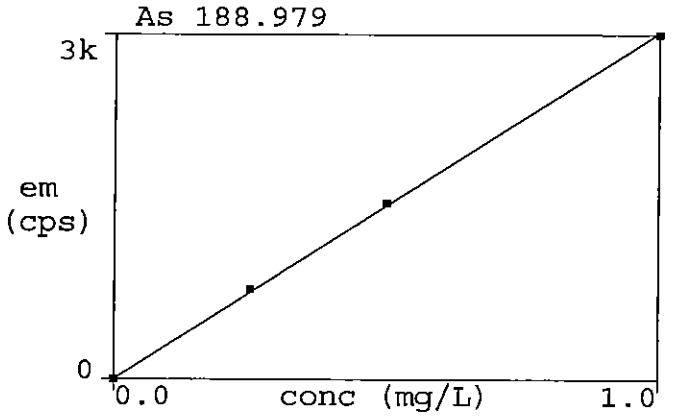
Method: 23ME ICP-M
Result: 03M1479M



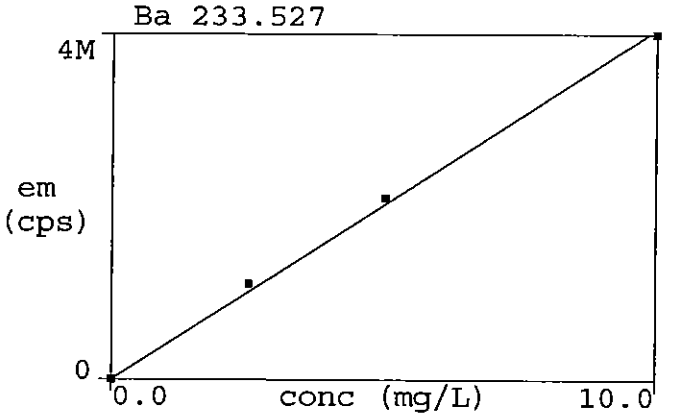
Calib.Eq'n: Linear-thru-Zero
1 Corr. Coeff.: 0.9997



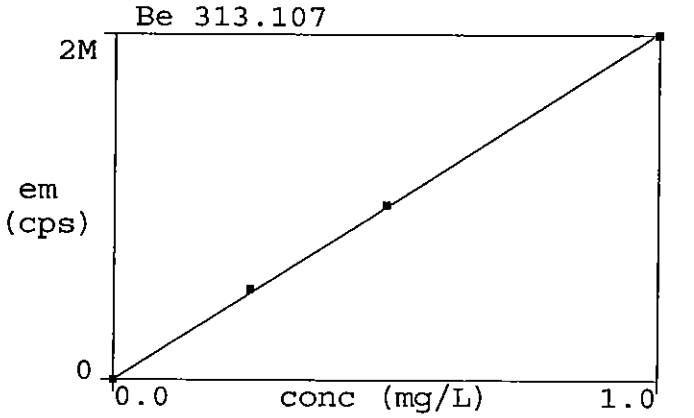
Calib.Eq'n: Linear-thru-Zero
2 Corr. Coeff.: 0.9991



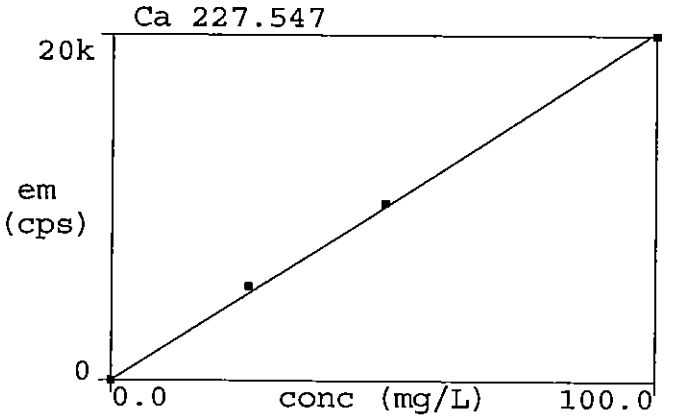
Calib.Eq'n: Linear-thru-Zero
3 Corr. Coeff.: 0.9999



Calib.Eq'n: Linear-thru-Zero
4 Corr. Coeff.: 0.9991



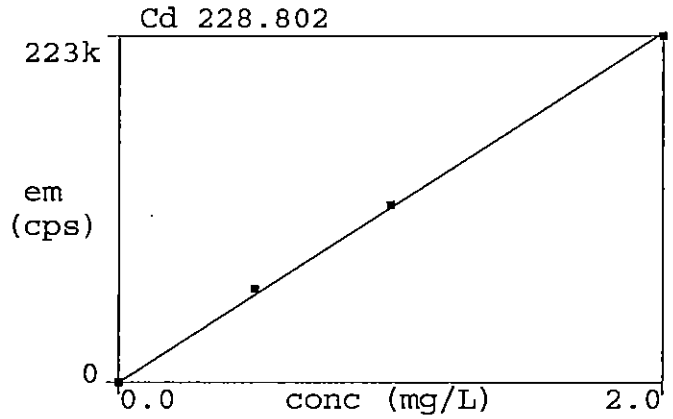
Calib.Eq'n: Linear-thru-Zero
5 Corr. Coeff.: 0.9998



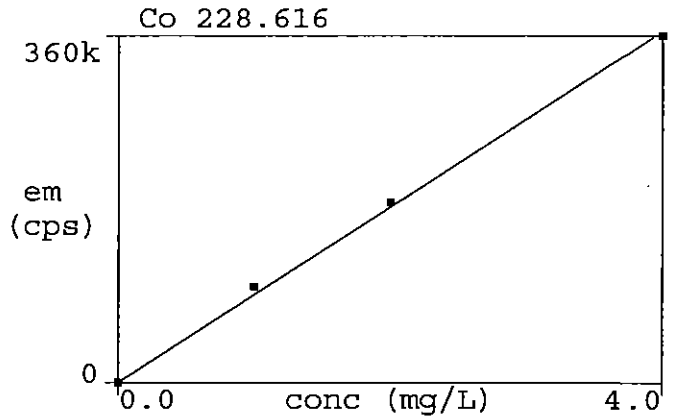
Calib.Eq'n: Linear-thru-Zero
6 Corr. Coeff.: 0.9994

Calibration

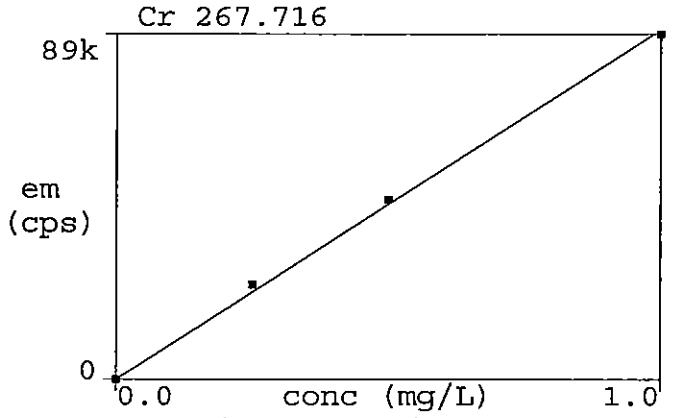
Method: 23ME ICP-M
Result: 03M1479M



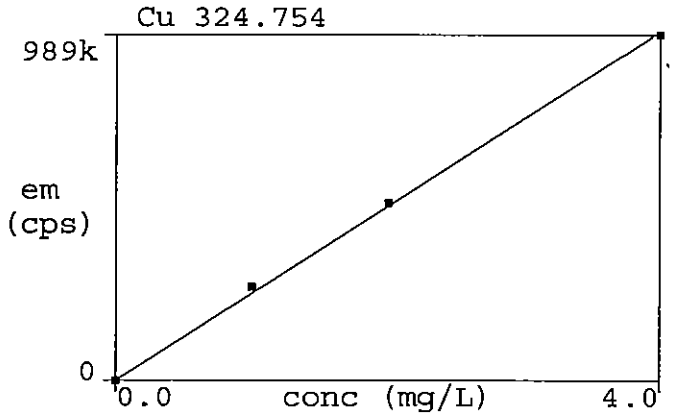
Calib.Eq'n: Linear-thru-Zero
7 Corr. Coeff.: 0.9996



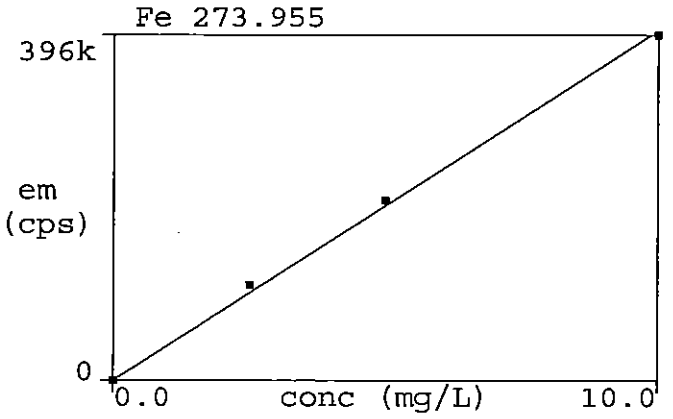
Calib.Eq'n: Linear-thru-Zero
8 Corr. Coeff.: 0.9991



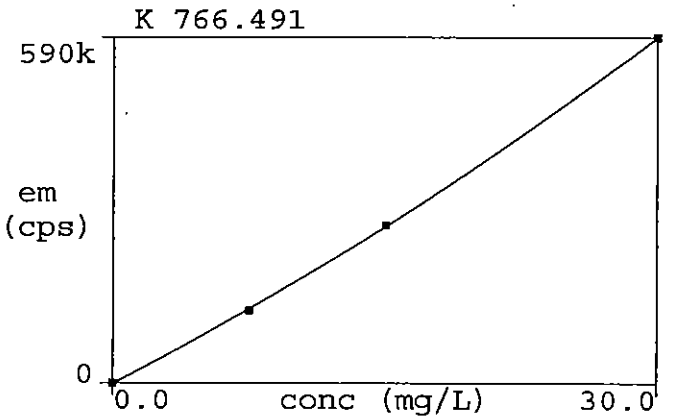
Calib.Eq'n: Linear-thru-Zero
9 Corr. Coeff.: 0.9993



Calib.Eq'n: Linear-thru-Zero
10 Corr. Coeff.: 0.9995



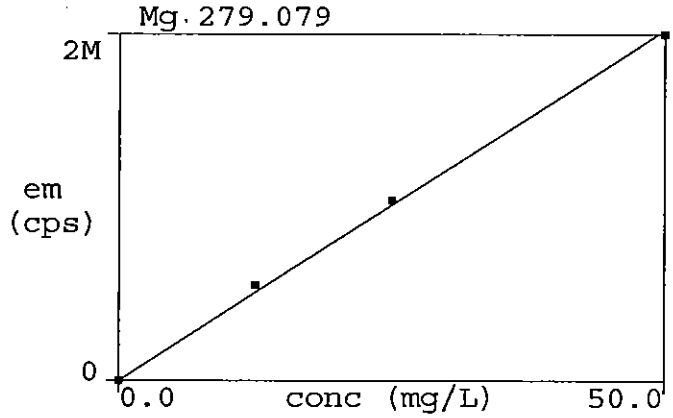
Calib.Eq'n: Linear-thru-Zero
11 Corr. Coeff.: 0.9992



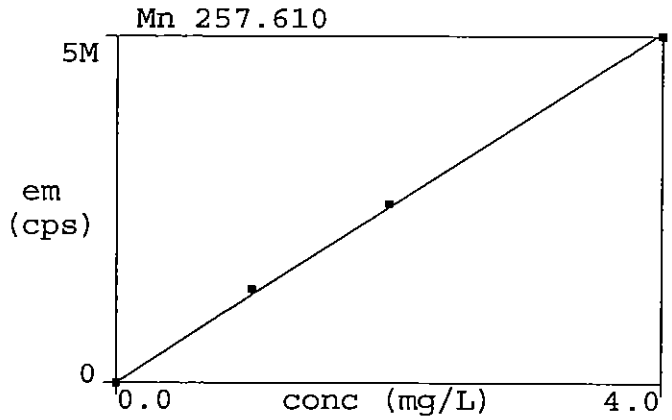
Calib.Eq'n: Non-Linear
12 Corr. Coeff.: 0.9985

Calibration

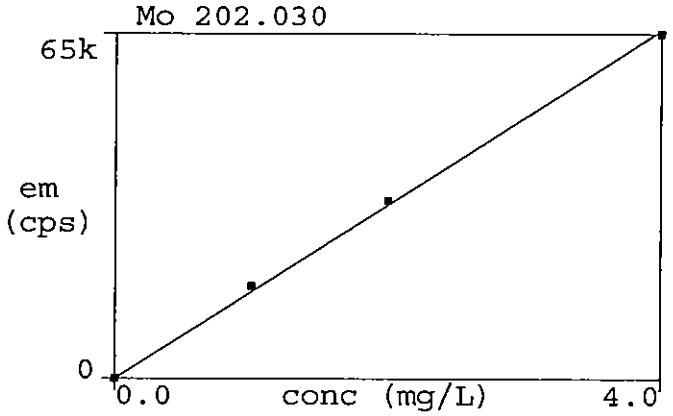
Method: 23ME ICP-M
Result: 03M1479M



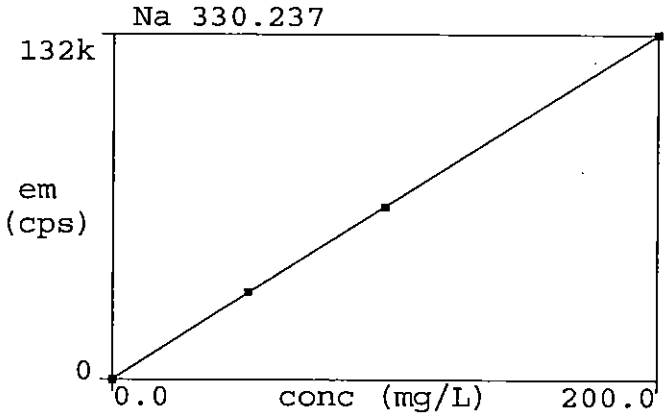
Calib.Eq'n: Linear-thru-Zero
13 Corr. Coeff.: 0.9993



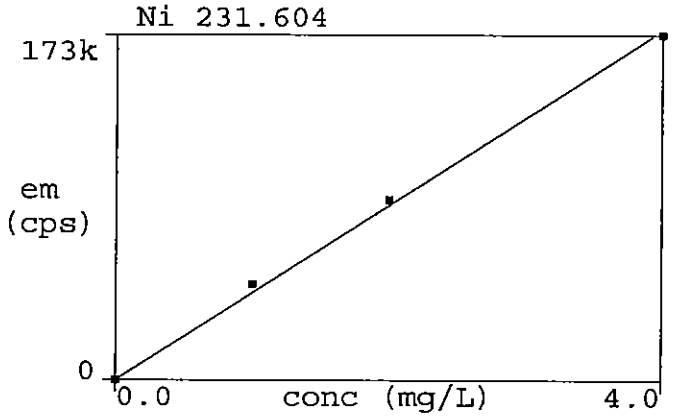
Calib.Eq'n: Linear-thru-Zero
14 Corr. Coeff.: 0.9996



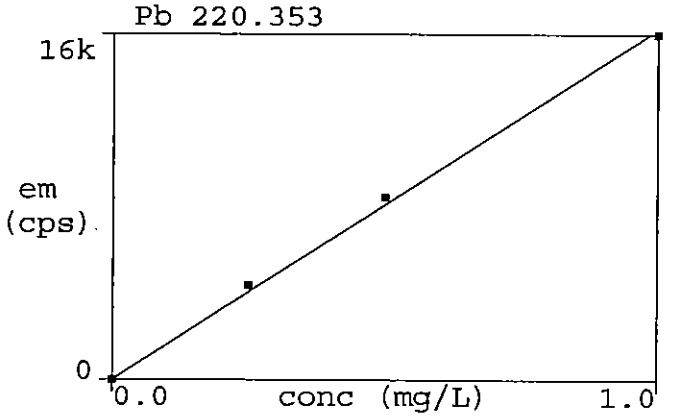
Calib.Eq'n: Linear-thru-Zero
15 Corr. Coeff.: 0.9995



Calib.Eq'n: Non-Linear
16 Corr. Coeff.: 1.0000



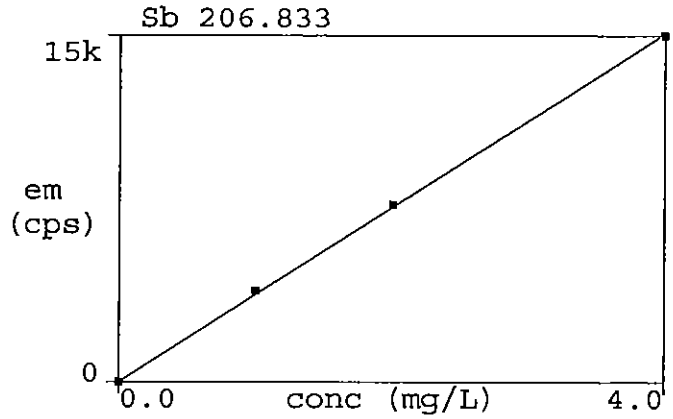
Calib.Eq'n: Linear-thru-Zero
17 Corr. Coeff.: 0.9991



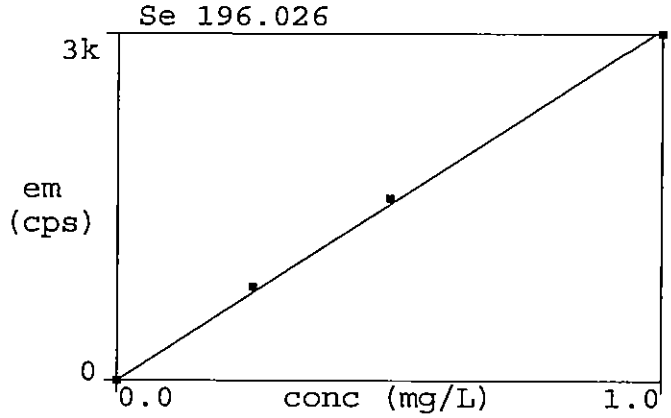
Calib.Eq'n: Linear-thru-Zero
18 Corr. Coeff.: 0.9990

Calibration

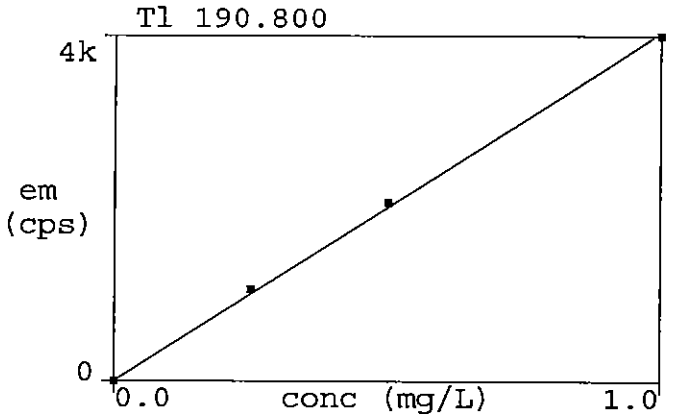
Method: 23ME ICP-M
Result: 03M1479M



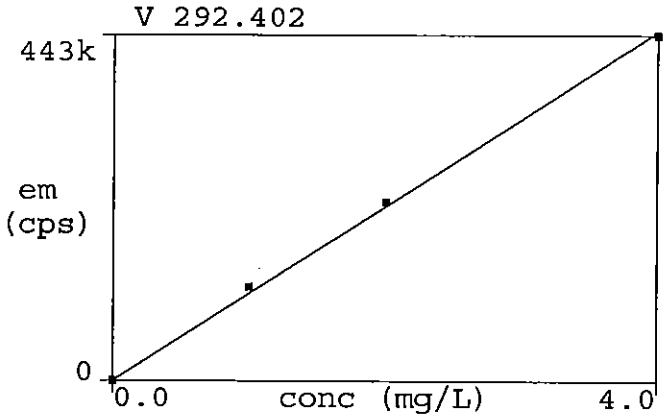
Calib.Eq'n: Linear-thru-Zero
19 Corr. Coeff.: 0.9998



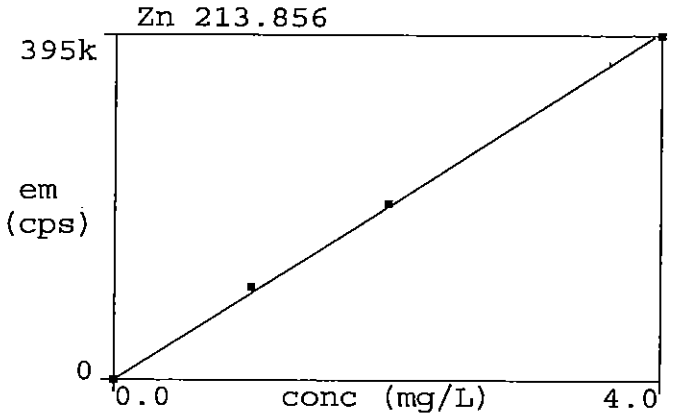
Calib.Eq'n: Linear-thru-Zero
20 Corr. Coeff.: 0.9994



Calib.Eq'n: Linear-thru-Zero
21 Corr. Coeff.: 0.9996



Calib.Eq'n: Linear-thru-Zero
22 Corr. Coeff.: 0.9994



Calib.Eq'n: Linear-thru-Zero
23 Corr. Coeff.: 0.9996

lethod: 23ME ICP-M
esults: 03M1479M
ample Info: 03m1479m
ethod Description: 6010B/200.7--23ME 5/15/03

IEC: 03miecm.iec
Spectra Stored: Yes
User: User1

MSF:
Method Stored: Yes
Date: 5/19/03 10:30:39 AM

eplicate Data
D: Calib Blank

Date: 5/19/03 10:32:03 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units
1	Ag 328.068	1740.0	1740.0	0	mg/L
1	Al 308.215	3760.5	3760.5	0	mg/L
1	As 188.979	133.1	133.1	0	mg/L
1	Ba 233.527	-1203.7	-1203.7	0	mg/L
1	Be 313.107	-317.2	-317.2	0	mg/L
1	Ca 227.547	594.2	594.2	0	mg/L
1	Cd 228.802	53.8	53.8	0	mg/L
1	Co 228.616	-576.9	-576.9	0	mg/L
1	Cr 267.716	110.2	110.2	0	mg/L
1	Cu 324.754	3535.7	3535.7	0	mg/L
1	Fe 273.955	346.2	346.2	0	mg/L
1	K 766.491	917.6	917.6	0	mg/L
1	Mg 279.079	3153.3	3153.3	0	mg/L
1	Mn 257.610	1040.7	1040.7	0	mg/L
1	Mo 202.030	-155.1	-155.1	0	mg/L
1	Na 330.237	4608.7	4608.7	0	mg/L
1	Ni 231.604	-430.4	-430.4	0	mg/L
1	Pb 220.353	436.7	436.7	0	mg/L
1	Sb 206.833	70.8	70.8	0	mg/L
1	Se 196.026	116.3	116.3	0	mg/L
1	Tl 190.800	386.0	386.0	0	mg/L
1	V 292.402	-404.5	-404.5	0	mg/L
1	Zn 213.856	-239.1	-239.1	0	mg/L
2	Ag 328.068	1670.0	1670.0	0	mg/L
2	Al 308.215	3805.2	3805.2	0	mg/L
2	As 188.979	125.2	125.2	0	mg/L
2	Ba 233.527	-1135.3	-1135.3	0	mg/L
2	Be 313.107	-235.4	-235.4	0	mg/L
2	Ca 227.547	617.9	617.9	0	mg/L
2	Cd 228.802	57.7	57.7	0	mg/L
2	Co 228.616	-570.9	-570.9	0	mg/L
2	Cr 267.716	76.6	76.6	0	mg/L
2	Cu 324.754	3769.9	3769.9	0	mg/L
2	Fe 273.955	206.5	206.5	0	mg/L
2	K 766.491	1631.5	1631.5	0	mg/L
2	Mg 279.079	2817.6	2817.6	0	mg/L
2	Mn 257.610	1023.2	1023.2	0	mg/L
2	Mo 202.030	-165.9	-165.9	0	mg/L
2	Na 330.237	4370.1	4370.1	0	mg/L
2	Ni 231.604	-408.0	-408.0	0	mg/L
2	Pb 220.353	422.4	422.4	0	mg/L
2	Sb 206.833	94.6	94.6	0	mg/L
2	Se 196.026	103.2	103.2	0	mg/L
2	Tl 190.800	393.5	393.5	0	mg/L
2	V 292.402	-503.2	-503.2	0	mg/L
2	Zn 213.856	-301.0	-301.0	0	mg/L
3	Ag 328.068	1708.1	1708.1	0	mg/L
3	Al 308.215	3896.9	3896.9	0	mg/L
3	As 188.979	125.4	125.4	0	mg/L
3	Ba 233.527	-966.4	-966.4	0	mg/L
3	Be 313.107	-284.3	-284.3	0	mg/L
3	Ca 227.547	596.6	596.6	0	mg/L
3	Cd 228.802	38.5	38.5	0	mg/L
3	Co 228.616	-563.2	-563.2	0	mg/L
3	Cr 267.716	107.0	107.0	0	mg/L
3	Cu 324.754	3951.9	3951.9	0	mg/L
3	Fe 273.955	18.6	18.6	0	mg/L

3	K 766.491	1587.6	1587.6	0 mg/L
3	Mg 279.079	2631.8	2631.8	0 mg/L
3	Mn 257.610	1141.5	1141.5	0 mg/L
3	Mo 202.030	-156.5	-156.5	0 mg/L
3	Na 330.237	4436.7	4436.7	0 mg/L
3	Ni 231.604	-440.3	-440.3	0 mg/L
3	Pb 220.353	426.3	426.3	0 mg/L
3	Sb 206.833	77.5	77.5	0 mg/L
3	Se 196.026	112.1	112.1	0 mg/L
3	Tl 190.800	388.1	388.1	0 mg/L
3	V 292.402	-380.8	-380.8	0 mg/L
3	Zn 213.856	-341.1	-341.1	0 mg/L

ean Data ----------

D: Calib Blank Seq. No.: 1 A/S Pos: 1
Data: Original Date: 5/19/03 10:32:03 AM

lement	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
g 328.068	1706.0	35.05	2.05%	0	mg/L
l 308.215	3820.9	69.57	1.82%	0	mg/L
s 188.979	127.9	4.50	3.52%	0	mg/L
a 233.527	-1101.8	122.16	11.09%	0	mg/L
e 313.107	-279.0	41.18	14.76%	0	mg/L
a 227.547	602.9	13.01	2.16%	0	mg/L
d 228.802	50.0	10.15	20.31%	0	mg/L
o 228.616	-570.3	6.89	1.21%	0	mg/L
r 267.716	97.9	18.52	18.91%	0	mg/L
u 324.754	3752.5	208.61	5.56%	0	mg/L
e 273.955	190.4	164.39	86.33%	0	mg/L
766.491	1378.9	400.09	29.02%	0	mg/L
g 279.079	2867.6	264.28	9.22%	0	mg/L
n 257.610	1068.4	63.83	5.97%	0	mg/L
o 202.030	-159.1	5.89	3.70%	0	mg/L
a 330.237	4471.9	123.13	2.75%	0	mg/L
i 231.604	-426.2	16.53	3.88%	0	mg/L
b 220.353	428.5	7.38	1.72%	0	mg/L
b 206.833	81.0	12.28	15.17%	0	mg/L
e 196.026	110.5	6.67	6.04%	0	mg/L
l 190.800	389.2	3.85	0.99%	0	mg/L
292.402	-429.5	64.92	15.12%	0	mg/L
n 213.856	-293.7	51.38	17.49%	0	mg/L

eplicate Data ----------

D: STD1 1423A Date: 5/19/03 10:35:42 AM

epl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Ag 328.068	347546.4	345840.3	2.0000	mg/L
1	Al 308.215	297888.1	294067.2	10.00	mg/L
1	As 188.979	3085.4	2957.5	1.000	mg/L
1	Ba 233.527	3811265.2	3812367.1	10.0000	mg/L
1	Be 313.107	2356504.0	2356783.0	1.00000	mg/L
1	Ca 227.547	20402.3	19799.5	100.0	mg/L
1	Cd 228.802	224482.8	224432.8	2.000	mg/L
1	Co 228.616	362313.3	362883.7	4.0000	mg/L
1	Cr 267.716	89344.1	89246.1	1.0000	mg/L
1	Cu 324.754	1012148.7	1008396.2	4.0000	mg/L
1	Fe 273.955	397118.5	396928.1	10.00	mg/L
1	K 766.491	606303.1	604924.2	30.00	mg/L
1	Mg 279.079	2030699.9	2027832.3	50.00	mg/L
1	Mn 257.610	5120679.4	5119611.0	4.0000	mg/L
1	Mo 202.030	64947.4	65106.6	4.000	mg/L
1	Na 330.237	136010.8	131538.9	200.00	mg/L
1	Ni 231.604	174368.7	174794.9	4.0000	mg/L
1	Pb 220.353	16476.6	16048.1	1.000	mg/L
1	Sb 206.833	15363.5	15282.6	4.000	mg/L
1	Se 196.026	2598.1	2487.6	1.000	mg/L
1	Tl 190.800	3943.6	3554.4	1.000	mg/L
1	V 292.402	450499.7	450929.2	4.0000	mg/L
1	Zn 213.856	397897.9	398191.6	4.000	mg/L

2	Ag 328.068	353737.5	352031.5	2.0000 mg/L
2	Al 308.215	302145.9	298325.1	10.00 mg/L
2	As 188.979	3117.6	2989.7	1.000 mg/L
2	Ba 233.527	3669768.5	3670870.3	10.0000 mg/L
2	Be 313.107	2251876.8	2252155.7	1.00000 mg/L
2	Ca 227.547	20669.6	20066.7	100.0 mg/L
2	Cd 228.802	227294.3	227244.3	2.000 mg/L
2	Co 228.616	365745.5	366315.8	4.0000 mg/L
2	Cr 267.716	91282.7	91184.8	1.0000 mg/L
2	Cu 324.754	969502.2	965749.7	4.0000 mg/L
2	Fe 273.955	404888.5	404698.1	10.00 mg/L
2	K 766.491	578819.0	577440.1	30.00 mg/L
2	Mg 279.079	1949043.6	1946176.1	50.00 mg/L
2	Mn 257.610	5015815.2	5014746.7	4.0000 mg/L
2	Mo 202.030	65762.0	65921.1	4.000 mg/L
2	Na 330.237	139362.9	134891.0	200.00 mg/L
2	Ni 231.604	175542.5	175968.7	4.0000 mg/L
2	Pb 220.353	16705.4	16277.0	1.000 mg/L
2	Sb 206.833	15447.8	15366.9	4.000 mg/L
2	Se 196.026	2635.6	2525.1	1.000 mg/L
2	Tl 190.800	4008.7	3619.5	1.000 mg/L
2	V 292.402	433871.2	434300.7	4.0000 mg/L
2	Zn 213.856	403102.8	403396.5	4.000 mg/L
3	Ag 328.068	336843.9	335137.8	2.0000 mg/L
3	Al 308.215	288702.1	284881.2	10.00 mg/L
3	As 188.979	3096.2	2968.3	1.000 mg/L
3	Ba 233.527	3765826.4	3766928.2	10.0000 mg/L
3	Be 313.107	2309641.7	2309920.7	1.00000 mg/L
3	Ca 227.547	19709.1	19106.2	100.0 mg/L
3	Cd 228.802	216580.3	216530.3	2.000 mg/L
3	Co 228.616	349068.8	349639.2	4.0000 mg/L
3	Cr 267.716	86924.0	86826.0	1.0000 mg/L
3	Cu 324.754	996072.5	992320.0	4.0000 mg/L
3	Fe 273.955	387244.1	387053.7	10.00 mg/L
3	K 766.491	589768.2	588389.3	30.00 mg/L
3	Mg 279.079	2000013.0	1997145.4	50.00 mg/L
3	Mn 257.610	5097914.5	5096846.1	4.0000 mg/L
3	Mo 202.030	63211.3	63370.4	4.000 mg/L
3	Na 330.237	132818.2	128346.4	200.00 mg/L
3	Ni 231.604	167730.3	168156.6	4.0000 mg/L
3	Pb 220.353	16014.3	15585.9	1.000 mg/L
3	Sb 206.833	15504.5	15423.5	4.000 mg/L
3	Se 196.026	2633.6	2523.1	1.000 mg/L
3	Tl 190.800	4030.1	3640.9	1.000 mg/L
3	V 292.402	444716.1	445145.6	4.0000 mg/L
3	Zn 213.856	384430.0	384723.7	4.000 mg/L

ean Data ----------

D: STD1 1423A Seq. No.: 2 A/S Pos: 2
Data: Original Date: 5/19/03 10:35:42 AM

lement	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
g 328.068	344336.5	8546.64	2.48%	2.0000	mg/L
l 308.215	292424.5	6870.83	2.35%	10.00	mg/L
s 188.979	2971.9	16.38	0.55%	1.000	mg/L
a 233.527	3750055.2	72241.64	1.93%	10.0000	mg/L
e 313.107	2306286.5	52408.21	2.27%	1.00000	mg/L
a 227.547	19657.5	495.75	2.52%	100.0	mg/L
d 228.802	222735.8	5554.94	2.49%	2.000	mg/L
o 228.616	359612.9	8806.31	2.45%	4.0000	mg/L
r 267.716	89085.7	2183.81	2.45%	1.0000	mg/L
u 324.754	988822.0	21537.36	2.18%	4.0000	mg/L
e 273.955	396226.6	8843.10	2.23%	10.00	mg/L
766.491	590251.2	13836.34	2.34%	30.00	mg/L
g 279.079	1990384.6	41245.82	2.07%	50.00	mg/L
n 257.610	5077067.9	55158.95	1.09%	4.0000	mg/L
o 202.030	64799.4	1302.82	2.01%	4.000	mg/L
a 330.237	131592.1	3272.63	2.49%	200.00	mg/L
i 231.604	172973.4	4212.57	2.44%	4.0000	mg/L

b 220.353	15970.3	352.05	2.20%	1.000	mg/L
b 206.833	15357.7	70.94	0.46%	4.000	mg/L
e 196.026	2511.9	21.10	0.84%	1.000	mg/L
l 190.800	3604.9	45.06	1.25%	1.000	mg/L
292.402	443458.5	8441.64	1.90%	4.0000	mg/L
n 213.856	395437.3	9636.30	2.44%	4.000	mg/L

eplicate Data ----------

D: STD2 1423B Date: 5/19/03 10:39:25 AM

epl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Ag 328.068	173547.7	171841.7	1.0000	mg/L
1	Al 308.215	153189.8	149368.9	5.000	mg/L
1	As 188.979	1630.0	1502.1	0.500	mg/L
1	Ba 233.527	1931905.2	1933007.1	5.0000	mg/L
1	Be 313.107	1150271.6	1150550.6	0.50000	mg/L
1	Ca 227.547	10574.2	9971.3	50.00	mg/L
1	Cd 228.802	111967.3	111917.3	1.000	mg/L
1	Co 228.616	183274.4	183844.7	2.0000	mg/L
1	Cr 267.716	45683.4	45585.5	0.5000	mg/L
1	Cu 324.754	501454.0	497701.5	2.0000	mg/L
1	Fe 273.955	202928.8	202738.4	5.000	mg/L
1	K 766.491	275514.6	274135.7	15.00	mg/L
1	Mg 279.079	1017424.5	1014557.0	25.000	mg/L
1	Mn 257.610	2654492.4	2653424.0	2.0000	mg/L
1	Mo 202.030	32790.7	32949.9	2.000	mg/L
1	Na 330.237	69162.6	64690.8	100.00	mg/L
1	Ni 231.604	88257.0	88683.2	2.0000	mg/L
1	Pb 220.353	8899.5	8471.0	0.500	mg/L
1	Sb 206.833	7894.6	7813.7	2.000	mg/L
1	Se 196.026	1415.3	1304.7	0.5000	mg/L
1	Tl 190.800	2240.9	1851.7	0.500	mg/L
1	V 292.402	225614.3	226043.8	2.0000	mg/L
1	Zn 213.856	198463.5	198757.2	2.000	mg/L
2	Ag 328.068	178642.3	176936.2	1.0000	mg/L
2	Al 308.215	158027.7	154206.9	5.000	mg/L
2	As 188.979	1637.1	1509.2	0.500	mg/L
2	Ba 233.527	1988681.2	1989783.0	5.0000	mg/L
2	Be 313.107	1186113.8	1186392.8	0.50000	mg/L
2	Ca 227.547	10797.8	10194.9	50.00	mg/L
2	Cd 228.802	115555.0	115505.0	1.000	mg/L
2	Co 228.616	188821.1	189391.4	2.0000	mg/L
2	Cr 267.716	46816.5	46718.5	0.5000	mg/L
2	Cu 324.754	516527.2	512774.7	2.0000	mg/L
2	Fe 273.955	208810.5	208620.0	5.000	mg/L
2	K 766.491	271025.9	269647.0	15.00	mg/L
2	Mg 279.079	1050041.0	1047173.4	25.000	mg/L
2	Mn 257.610	2588124.7	2587056.3	2.0000	mg/L
2	Mo 202.030	33895.6	34054.8	2.000	mg/L
2	Na 330.237	71108.6	66636.7	100.00	mg/L
2	Ni 231.604	90949.0	91375.2	2.0000	mg/L
2	Pb 220.353	8862.4	8433.9	0.500	mg/L
2	Sb 206.833	7872.3	7791.4	2.000	mg/L
2	Se 196.026	1431.3	1320.8	0.5000	mg/L
2	Tl 190.800	2255.9	1866.6	0.500	mg/L
2	V 292.402	232112.6	232542.0	2.0000	mg/L
2	Zn 213.856	205140.1	205433.9	2.000	mg/L
3	Ag 328.068	177787.1	176081.0	1.0000	mg/L
3	Al 308.215	158287.3	154466.5	5.000	mg/L
3	As 188.979	1661.0	1533.1	0.500	mg/L
3	Ba 233.527	1983054.3	1984156.1	5.0000	mg/L
3	Be 313.107	1183537.4	1183816.3	0.50000	mg/L
3	Ca 227.547	10897.9	10295.0	50.00	mg/L
3	Cd 228.802	115475.7	115425.7	1.000	mg/L
3	Co 228.616	188233.8	188804.1	2.0000	mg/L
3	Cr 267.716	46959.1	46861.2	0.5000	mg/L
3	Cu 324.754	515182.5	511430.0	2.0000	mg/L
3	Fe 273.955	208657.4	208466.9	5.000	mg/L

3 K 766.491	268489.4	267110.4	15.00	mg/L
3 Mg 279.079	1047177.7	1044310.1	25.000	mg/L
3 Mn 257.610	2614883.8	2613815.4	2.0000	mg/L
3 Mo 202.030	33638.8	33797.9	2.000	mg/L
3 Na 330.237	71247.1	66775.2	100.00	mg/L
3 Ni 231.604	90875.3	91301.5	2.0000	mg/L
3 Pb 220.353	8927.1	8498.6	0.500	mg/L
3 Sb 206.833	7988.1	7907.1	2.000	mg/L
3 Se 196.026	1427.3	1316.7	0.5000	mg/L
3 Tl 190.800	2277.0	1887.7	0.500	mg/L
3 V 292.402	231804.0	232233.5	2.0000	mg/L
3 Zn 213.856	204719.0	205012.7	2.000	mg/L

ean Data ----------

D: STD2 1423B Seq. No.: 3 A/S Pos: 3
Data: Original Date: 5/19/03 10:39:25 AM

lement	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
g 328.068	174953.0	2728.18	1.56%	1.0000	mg/L
l 308.215	152680.8	2871.06	1.88%	5.000	mg/L
s 188.979	1514.8	16.27	1.07%	0.500	mg/L
a 233.527	1968982.1	31282.05	1.59%	5.0000	mg/L
e 313.107	1173586.6	19991.30	1.70%	0.50000	mg/L
a 227.547	10153.7	165.72	1.63%	50.00	mg/L
d 228.802	114282.7	2048.85	1.79%	1.000	mg/L
o 228.616	187346.8	3047.02	1.63%	2.0000	mg/L
r 267.716	46388.4	699.00	1.51%	0.5000	mg/L
u 324.754	507302.0	8341.46	1.64%	2.0000	mg/L
e 273.955	206608.5	3352.43	1.62%	5.000	mg/L
766.491	270297.7	3557.57	1.32%	15.00	mg/L
g 279.079	1035346.8	18061.39	1.74%	25.000	mg/L
n 257.610	2618098.5	33390.54	1.28%	2.0000	mg/L
o 202.030	33600.9	578.21	1.72%	2.000	mg/L
a 330.237	66034.2	1165.53	1.77%	100.00	mg/L
i 231.604	90453.3	1533.42	1.70%	2.0000	mg/L
o 220.353	8467.9	32.47	0.38%	0.500	mg/L
o 206.833	7837.4	61.40	0.78%	2.000	mg/L
e 196.026	1314.1	8.35	0.64%	0.5000	mg/L
l 190.800	1868.7	18.10	0.97%	0.500	mg/L
292.402	230273.1	3665.96	1.59%	2.0000	mg/L
n 213.856	203067.9	3739.12	1.84%	2.000	mg/L

eplicate Data ----------

D: STD3 1423C Date: 5/19/03 10:43:01 AM

epl# Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1 Ag 328.068	94709.2	93003.2	0.5000	mg/L
1 Al 308.215	85818.6	81997.8	2.500	mg/L
1 As 188.979	891.5	763.6	0.250	mg/L
1 Ba 233.527	1040060.5	1041162.3	2.5000	mg/L
1 Be 313.107	609090.4	609369.4	0.25000	mg/L
1 Ca 227.547	6002.4	5399.5	25.00	mg/L
1 Cd 228.802	60648.1	60598.1	0.500	mg/L
1 Co 228.616	100459.4	101029.7	1.0000	mg/L
1 Cr 267.716	24905.7	24807.8	0.2500	mg/L
1 Cu 324.754	274207.6	270455.1	1.0000	mg/L
1 Fe 273.955	110535.4	110344.9	2.500	mg/L
1 K 766.491	124644.5	123265.6	7.500	mg/L
1 Mg 279.079	549136.4	546268.8	12.500	mg/L
1 Mn 257.610	1366424.4	1365356.0	1.0000	mg/L
1 Mo 202.030	17290.4	17449.5	1.000	mg/L
1 Na 330.237	38440.9	33969.0	50.00	mg/L
1 Ni 231.604	48302.9	48729.2	1.0000	mg/L
1 Pb 220.353	4789.2	4360.7	0.250	mg/L
1 Sb 206.833	4130.3	4049.3	1.000	mg/L
1 Se 196.026	777.8	667.3	0.250	mg/L
1 Tl 190.800	1352.2	963.0	0.250	mg/L
1 V 292.402	121796.3	122225.8	1.0000	mg/L
1 Zn 213.856	107410.0	107703.7	1.000	mg/L

2 Ag 328.068	93478.6	91772.6	0.5000	mg/L
2 Al 308.215	84928.3	81107.5	2.500	mg/L
2 As 188.979	906.0	778.1	0.250	mg/L
2 Ba 233.527	1045557.3	1046659.1	2.5000	mg/L
2 Be 313.107	613592.9	613871.9	0.25000	mg/L
2 Ca 227.547	5981.6	5378.7	25.00	mg/L
2 Cd 228.802	60161.5	60111.5	0.500	mg/L
2 Co 228.616	98773.2	99343.5	1.0000	mg/L
2 Cr 267.716	24394.1	24296.2	0.2500	mg/L
2 Cu 324.754	270830.1	267077.6	1.0000	mg/L
2 Fe 273.955	109399.7	109209.3	2.500	mg/L
2 K 766.491	125730.4	124351.5	7.500	mg/L
2 Mg 279.079	552502.6	549635.0	12.500	mg/L
2 Mn 257.610	1372737.2	1371668.8	1.0000	mg/L
2 Mo 202.030	17266.4	17425.6	1.000	mg/L
2 Na 330.237	38005.6	33533.8	50.00	mg/L
2 Ni 231.604	47599.3	48025.6	1.0000	mg/L
2 Pb 220.353	4772.2	4343.8	0.250	mg/L
2 Sb 206.833	4110.4	4029.5	1.000	mg/L
2 Se 196.026	784.8	674.2	0.250	mg/L
2 Tl 190.800	1354.2	965.0	0.250	mg/L
2 V 292.402	120254.5	120683.9	1.0000	mg/L
2 Zn 213.856	106215.0	106508.7	1.000	mg/L
3 Ag 328.068	93139.1	91433.0	0.5000	mg/L
3 Al 308.215	84487.0	80666.1	2.500	mg/L
3 As 188.979	910.0	782.1	0.250	mg/L
3 Ba 233.527	1025326.9	1026428.7	2.5000	mg/L
3 Be 313.107	601891.9	602170.9	0.25000	mg/L
3 Ca 227.547	5993.2	5390.3	25.00	mg/L
3 Cd 228.802	59959.1	59909.1	0.500	mg/L
3 Co 228.616	98257.7	98828.0	1.0000	mg/L
3 Cr 267.716	24316.7	24218.8	0.2500	mg/L
3 Cu 324.754	270783.4	267030.9	1.0000	mg/L
3 Fe 273.955	108447.7	108257.3	2.500	mg/L
3 K 766.491	124099.2	122720.3	7.500	mg/L
3 Mg 279.079	542361.2	539493.6	12.500	mg/L
3 Mn 257.610	1346252.9	1345184.4	1.0000	mg/L
3 Mo 202.030	17322.6	17481.7	1.000	mg/L
3 Na 330.237	37660.9	33189.1	50.00	mg/L
3 Ni 231.604	47205.9	47632.1	1.0000	mg/L
3 Pb 220.353	4785.2	4356.8	0.250	mg/L
3 Sb 206.833	4119.8	4038.9	1.000	mg/L
3 Se 196.026	795.1	684.6	0.250	mg/L
3 Tl 190.800	1335.6	946.3	0.250	mg/L
3 V 292.402	119504.8	119934.3	1.0000	mg/L
3 Zn 213.856	106246.2	106539.9	1.000	mg/L

ean Data ----------

D: STD3 1423C Seq. No.: 4 A/S Pos: 4
Data: Original Date: 5/19/03 10:43:01 AM

lement	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
g 328.068	92069.6	826.16	0.90%	0.5000	mg/L
l 308.215	81257.1	678.34	0.83%	2.500	mg/L
s 188.979	774.6	9.71	1.25%	0.250	mg/L
a 233.527	1038083.4	10460.72	1.01%	2.5000	mg/L
e 313.107	608470.7	5902.06	0.97%	0.25000	mg/L
a 227.547	5389.5	10.42	0.19%	25.00	mg/L
d 228.802	60206.2	354.11	0.59%	0.500	mg/L
o 228.616	99733.8	1151.56	1.15%	1.0000	mg/L
r 267.716	24440.9	320.05	1.31%	0.2500	mg/L
u 324.754	268187.9	1963.58	0.73%	1.0000	mg/L
e 273.955	109270.5	1045.16	0.96%	2.500	mg/L
766.491	123445.8	830.36	0.67%	7.500	mg/L
g 279.079	545132.5	5165.31	0.95%	12.500	mg/L
n 257.610	1360736.4	13833.32	1.02%	1.0000	mg/L
o 202.030	17452.3	28.18	0.16%	1.000	mg/L
a 330.237	33564.0	390.86	1.16%	50.00	mg/L
i 231.604	48129.0	555.77	1.15%	1.0000	mg/L

b 220.353	4353.8	8.87	0.20%	0.250 mg/L
b 206.833	4039.2	9.92	0.25%	1.000 mg/L
e 196.026	675.4	8.70	1.29%	0.250 mg/L
l 190.800	958.1	10.25	1.07%	0.250 mg/L
292.402	120948.0	1168.34	0.97%	1.0000 mg/L
n 213.856	106917.4	681.13	0.64%	1.000 mg/L

alibration Summary
ethod: 23ME ICP-M Date: 5/19/03 10:44:05 AM

lement	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
g 328.068	3	Linear-thru-Zero	0.0	173268.7	0.00000	0.999717
l 308.215	3	Linear-thru-Zero	0.0	29644.1	0.00000	0.999093
s 188.979	3	Linear-thru-Zero	0.0	2988.9	0.00000	0.999851
a 233.527	3	Linear-thru-Zero	0.0	380500.3	0.00000	0.999054
e 313.107	3	Linear-thru-Zero	0.0	2320150.4	0.00000	0.999799
a 227.547	3	Linear-thru-Zero	0.0	198.7	0.00000	0.999372
d 228.802	3	Linear-thru-Zero	0.0	112353.8	0.00000	0.999568
o 228.616	3	Linear-thru-Zero	0.0	91089.5	0.00000	0.999146
r 267.716	3	Linear-thru-Zero	0.0	90202.0	0.00000	0.999272
u 324.754	3	Linear-thru-Zero	0.0	249432.4	0.00000	0.999539
e 273.955	3	Linear-thru-Zero	0.0	40140.8	0.00000	0.999198
766.491	3	Non-Linear	-1199.1	16151.5	119.22867	0.998501
g 279.079	3	Linear-thru-Zero	0.0	40294.7	0.00000	0.999303
n 257.610	3	Linear-thru-Zero	0.0	1281200.2	0.00000	0.999592
o 202.030	3	Linear-thru-Zero	0.0	16373.9	0.00000	0.999494
a 330.237	3	Non-Linear	106.3	665.6	-0.04154	0.999986
i 231.604	3	Linear-thru-Zero	0.0	43853.8	0.00000	0.999055
b 220.353	3	Linear-thru-Zero	0.0	16223.0	0.00000	0.999028
b 206.833	3	Linear-thru-Zero	0.0	3864.0	0.00000	0.999800
e 196.026	3	Linear-thru-Zero	0.0	2543.1	0.00000	0.999385
l 190.800	3	Linear-thru-Zero	0.0	3641.0	0.00000	0.999592
292.402	3	Linear-thru-Zero	0.0	112158.5	0.00000	0.999366
n 213.856	3	Linear-thru-Zero	0.0	99752.5	0.00000	0.999559

eplicate Data
D: ICV 1447A Date: 5/19/03 10:46:46 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	341452.1	339746.0	1.961	mg/L		
1	Al 308.215	294610.4	290789.5	9.809	mg/L		
1	As 188.979	2971.0	2843.1	0.9620	mg/L		
1	Ba 233.527	3778182.4	3779284.2	9.932	mg/L		
1	Be 313.107	2291568.4	2291847.4	0.9878	mg/L		
1	Ca 227.547	19976.1	19373.2	97.49	mg/L		
1	Cd 228.802	217662.1	217612.1	1.937	mg/L		
1	Co 228.616	352113.5	352683.8	3.872	mg/L		
1	Cr 267.716	88492.4	88394.5	0.9800	mg/L		
1	Cu 324.754	988732.5	984980.0	3.949	mg/L		
1	Fe 273.955	395068.7	394878.2	9.837	mg/L		
1	K 766.491	599385.1	598006.2	30.32	mg/L		
1	Mg 279.079	1992361.4	1989493.8	49.37	mg/L		
1	Mn 257.610	5075490.9	5074422.5	3.961	mg/L		
1	Mo 202.030	63777.6	63936.7	3.905	mg/L		
1	Na 330.237	136084.4	131612.5	200.1	mg/L		
1	Ni 231.604	168442.8	168869.1	3.851	mg/L		
1	Pb 220.353	16142.3	15713.8	0.9686	mg/L		
1	Sb 206.833	14993.2	14912.3	3.831	mg/L		
1	Se 196.026	2589.4	2478.9	0.9762	mg/L		
1	Tl 190.800	3841.7	3452.5	0.9444	mg/L		
1	V 292.402	446931.9	447361.4	3.989	mg/L		
1	Zn 213.856	386859.1	387152.8	3.881	mg/L		
2	Ag 328.068	352051.6	350345.5	2.022	mg/L		
2	Al 308.215	301708.2	297887.3	10.05	mg/L		
2	As 188.979	2970.9	2843.0	0.9623	mg/L		
2	Ba 233.527	3796858.1	3797960.0	9.981	mg/L		
2	Be 313.107	2299055.6	2299334.6	0.9910	mg/L		

2 Ca 227.547	20743.1	20140.2	101.4	mg/L
2 Cd 228.802	223907.1	223857.1	1.992	mg/L
2 Co 228.616	361932.9	362503.3	3.980	mg/L
2 Cr 267.716	90944.5	90846.6	1.007	mg/L
2 Cu 324.754	992245.3	988492.8	3.963	mg/L
2 Fe 273.955	406722.9	406532.4	10.13	mg/L
2 K 766.491	594353.5	592974.6	30.10	mg/L
2 Mg 279.079	1999818.0	1996950.5	49.56	mg/L
2 Mn 257.610	5040763.1	5039694.7	3.934	mg/L
2 Mo 202.030	65566.4	65725.5	4.014	mg/L
2 Na 330.237	140340.9	135869.0	206.6	mg/L
2 Ni 231.604	173292.4	173718.7	3.961	mg/L
2 Pb 220.353	16471.2	16042.8	0.9889	mg/L
2 Sb 206.833	15044.0	14963.0	3.843	mg/L
2 Se 196.026	2594.5	2484.0	0.9783	mg/L
2 Tl 190.800	3888.9	3499.7	0.9573	mg/L
2 V 292.402	448249.5	448679.0	4.000	mg/L
2 Zn 213.856	398571.0	398864.8	3.999	mg/L
3 Ag 328.068	347167.6	345461.5	1.994	mg/L
3 Al 308.215	299365.9	295545.0	9.970	mg/L
3 As 188.979	3027.2	2899.3	0.9810	mg/L
3 Ba 233.527	3975334.0	3976435.9	10.45	mg/L
3 Be 313.107	2410853.6	2411132.5	1.039	mg/L
3 Ca 227.547	20386.6	19783.7	99.56	mg/L
3 Cd 228.802	220836.5	220786.5	1.965	mg/L
3 Co 228.616	357207.9	357778.3	3.928	mg/L
3 Cr 267.716	89757.4	89659.5	0.9940	mg/L
3 Cu 324.754	1040954.7	1037202.2	4.158	mg/L
3 Fe 273.955	400542.3	400351.8	9.974	mg/L
3 K 766.491	587733.6	586354.7	29.82	mg/L
3 Mg 279.079	2096548.1	2093680.5	51.96	mg/L
3 Mn 257.610	4994585.7	4993517.3	3.898	mg/L
3 Mo 202.030	64716.2	64875.4	3.962	mg/L
3 Na 330.237	137997.8	133525.9	203.0	mg/L
3 Ni 231.604	170902.6	171328.8	3.907	mg/L
3 Pb 220.353	16364.9	15936.4	0.9823	mg/L
3 Sb 206.833	15347.1	15266.2	3.922	mg/L
3 Se 196.026	2630.1	2519.6	0.9923	mg/L
3 Tl 190.800	3952.5	3563.2	0.9747	mg/L
3 V 292.402	468660.4	469089.9	4.182	mg/L
3 Zn 213.856	393034.1	393327.8	3.943	mg/L

ean Data ----------

D: ICV 1447A Seq. No.: 5 Sample No.: 1 A/S Pos: 5
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 10:46:46 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
g 328.068	345184.4	1.992	0.0306	mg/L				1.54%
l 308.215	294740.6	9.943	0.1220	mg/L				1.23%
s 188.979	2861.8	0.9685	0.01087	mg/L				1.12%
a 233.527	3851226.7	10.12	0.286	mg/L				2.83%
e 313.107	2334104.8	1.006	0.0288	mg/L				2.86%
a 227.547	19765.7	99.47	1.932	mg/L				1.94%
d 228.802	220751.9	1.965	0.0278	mg/L				1.41%
o 228.616	357655.1	3.926	0.0539	mg/L				1.37%
r 267.716	89633.5	0.9937	0.01359	mg/L				1.37%
u 324.754	1003558.3	4.023	0.1170	mg/L				2.91%
e 273.955	400587.5	9.980	0.1453	mg/L				1.46%
766.491	592445.1	30.08	0.251	mg/L				0.83%
g 279.079	2026708.3	50.30	1.442	mg/L				2.87%
n 257.610	5035878.1	3.931	0.0317	mg/L				0.81%
o 202.030	64845.9	3.960	0.0546	mg/L				1.38%
a 330.237	133669.2	203.3	3.29	mg/L				1.62%
i 231.604	171305.5	3.906	0.0553	mg/L				1.42%
b 220.353	15897.7	0.9799	0.01035	mg/L				1.06%
b 206.833	15047.1	3.865	0.0495	mg/L				1.28%
e 196.026	2494.1	0.9823	0.00872	mg/L				0.89%
l 190.800	3505.1	0.9588	0.01522	mg/L				1.59%
292.402	455043.4	4.057	0.1086	mg/L				2.68%

n 213.856 393115.1 3.941 0.0587 mg/L 1.49%

eplicate Data ----------
D: ICB Date: 5/19/03 10:50:22 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	1734.5	28.4	0.0002	mg/L		
1	Al 308.215	3714.4	-106.5	-0.0036	mg/L		
1	As 188.979	135.7	7.8	0.0026	mg/L		
1	Ba 233.527	-298.1	803.7	0.0021	mg/L		
1	Be 313.107	2003.2	2282.2	0.0010	mg/L		
1	Ca 227.547	640.0	37.1	0.1869	mg/L		
1	Cd 228.802	40.7	-9.3	-0.0001	mg/L		
1	Co 228.616	-441.3	129.1	0.0014	mg/L		
1	Cr 267.716	123.6	25.7	0.0003	mg/L		
1	Cu 324.754	3812.3	59.8	0.0002	mg/L		
1	Fe 273.955	224.2	33.7	0.0008	mg/L		
1	K 766.491	1365.3	-13.6	0.0734	mg/L		
1	Mg 279.079	2052.1	-815.5	-0.0202	mg/L		
1	Mn 257.610	3397.4	2329.0	0.0018	mg/L		
1	Mo 202.030	-89.4	69.8	0.0043	mg/L		
1	Na 330.237	4569.6	97.7	-0.0129	mg/L		
1	Ni 231.604	-347.1	79.1	0.0018	mg/L		
1	Pb 220.353	411.3	-17.2	-0.0011	mg/L		
1	Sb 206.833	83.3	2.3	0.0006	mg/L		
1	Se 196.026	109.5	-1.0	-0.0004	mg/L		
1	Tl 190.800	378.2	-11.1	-0.0030	mg/L		
1	V 292.402	-208.5	221.0	0.0020	mg/L		
1	Zn 213.856	-241.4	52.4	0.0005	mg/L		
2	Ag 328.068	1871.4	165.3	0.0010	mg/L		
2	Al 308.215	3918.2	97.3	0.0033	mg/L		
2	As 188.979	132.3	4.4	0.0015	mg/L		
2	Ba 233.527	-487.5	614.3	0.0016	mg/L		
2	Be 313.107	1755.6	2034.5	0.0009	mg/L		
2	Ca 227.547	651.0	48.1	0.2421	mg/L		
2	Cd 228.802	47.6	-2.4	0.0000	mg/L		
2	Co 228.616	-456.8	113.5	0.0012	mg/L		
2	Cr 267.716	81.2	-16.7	-0.0002	mg/L		
2	Cu 324.754	3605.2	-147.3	-0.0006	mg/L		
2	Fe 273.955	144.5	-45.9	-0.0011	mg/L		
2	K 766.491	1861.4	482.5	0.1040	mg/L		
2	Mg 279.079	1992.6	-875.0	-0.0217	mg/L		
2	Mn 257.610	2964.6	1896.2	0.0015	mg/L		
2	Mo 202.030	-103.9	55.2	0.0034	mg/L		
2	Na 330.237	4967.9	496.1	0.5856	mg/L		
2	Ni 231.604	-366.2	60.0	0.0014	mg/L		
2	Pb 220.353	423.5	-4.9	-0.0003	mg/L		
2	Sb 206.833	93.7	12.7	0.0033	mg/L		
2	Se 196.026	102.6	-8.0	-0.0031	mg/L		
2	Tl 190.800	378.1	-11.1	-0.0031	mg/L		
2	V 292.402	-341.4	88.1	0.0008	mg/L		
2	Zn 213.856	-301.1	-7.4	-0.0001	mg/L		
3	Ag 328.068	1583.6	-122.5	-0.0007	mg/L		
3	Al 308.215	3765.9	-55.0	-0.0019	mg/L		
3	As 188.979	131.0	3.2	0.0011	mg/L		
3	Ba 233.527	-724.9	376.9	0.0010	mg/L		
3	Be 313.107	1576.2	1855.1	0.0008	mg/L		
3	Ca 227.547	632.9	30.1	0.1513	mg/L		
3	Cd 228.802	38.4	-11.6	-0.0001	mg/L		
3	Co 228.616	-466.2	104.1	0.0011	mg/L		
3	Cr 267.716	93.3	-4.7	-0.0001	mg/L		
3	Cu 324.754	3632.7	-119.8	-0.0005	mg/L		
3	Fe 273.955	235.8	45.4	0.0011	mg/L		
3	K 766.491	1312.1	-66.8	0.0701	mg/L		
3	Mg 279.079	1669.5	-1198.1	-0.0297	mg/L		
3	Mn 257.610	2626.8	1558.4	0.0012	mg/L		
3	Mo 202.030	-108.6	50.5	0.0031	mg/L		
3	Na 330.237	4702.7	230.9	0.1872	mg/L		

3	Ni 231.604	-356.9	69.3	0.0016	mg/L
3	Pb 220.353	411.3	-17.2	-0.0011	mg/L
3	Sb 206.833	85.7	4.8	0.0012	mg/L
3	Se 196.026	92.9	-17.7	-0.0069	mg/L
3	Tl 190.800	376.9	-12.4	-0.0034	mg/L
3	V 292.402	-389.0	40.5	0.0004	mg/L
3	Zn 213.856	-329.5	-35.8	-0.0004	mg/L

ean Data ----------

D: ICB Seq. No.: 6 Sample No.: 2 A/S Pos: 1
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 10:50:22 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	23.8	0.0001	0.00083	mg/L				606.10%
l 308.215	-21.4	-0.0007	0.00357	mg/L				495.47%
s 188.979	5.1	0.0017	0.00080	mg/L				46.65%
a 233.527	598.3	0.0016	0.00056	mg/L				35.74%
e 313.107	2057.3	0.0009	0.00009	mg/L				10.42%
a 227.547	38.4	0.1934	0.04575	mg/L				23.66%
d 228.802	-7.8	-0.0001	0.00004	mg/L				61.31%
o 228.616	115.6	0.0013	0.00014	mg/L				10.90%
r 267.716	1.4	0.0000	0.00024	mg/L				>999.9%
u 324.754	-69.1	-0.0003	0.00045	mg/L				162.84%
e 273.955	11.1	0.0003	0.00124	mg/L				449.09%
766.491	134.0	0.0825	0.01873	mg/L				22.71%
g 279.079	-962.8	-0.0239	0.00511	mg/L				21.38%
n 257.610	1927.9	0.0015	0.00030	mg/L				20.04%
o 202.030	58.5	0.0036	0.00061	mg/L				17.13%
a 330.237	274.9	0.2533	0.30467	mg/L				120.28%
i 231.604	69.5	0.0016	0.00022	mg/L				13.77%
b 220.353	-13.1	-0.0008	0.00044	mg/L				54.06%
b 206.833	6.6	0.0017	0.00141	mg/L				82.40%
e 196.026	-8.9	-0.0035	0.00329	mg/L				94.31%
l 190.800	-11.5	-0.0032	0.00020	mg/L				6.39%
292.402	116.5	0.0010	0.00083	mg/L				80.28%
n 213.856	3.1	0.0000	0.00045	mg/L				>999.9%

eplicate Data ----------

D: CRI A1432 Date: 5/19/03 10:53:43 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Ag 328.068	3630.7	1924.7	0.0111	mg/L		
1	Al 308.215	10111.1	6290.2	0.2122	mg/L		
1	As 188.979	187.0	59.1	0.0198	mg/L		
1	Ba 233.527	3581.9	4683.7	0.0123	mg/L		
1	Be 313.107	11468.6	11747.6	0.0051	mg/L		
1	Ca 227.547	839.7	236.8	1.192	mg/L		
1	Cd 228.802	599.9	549.9	0.0049	mg/L		
1	Co 228.616	1619.9	2190.2	0.0240	mg/L		
1	Cr 267.716	1079.6	981.7	0.0109	mg/L		
1	Cu 324.754	5330.5	1578.0	0.0063	mg/L		
1	Fe 273.955	2394.4	2204.0	0.0549	mg/L		
1	K 766.491	1628.5	249.6	0.0896	mg/L		
1	Mg 279.079	1970.7	-896.9	-0.0223	mg/L		
1	Mn 257.610	16615.5	15547.0	0.0121	mg/L		
1	Mo 202.030	107.5	266.7	0.0163	mg/L		
1	Na 330.237	4645.8	174.0	0.1016	mg/L		
1	Ni 231.604	636.5	1062.7	0.0242	mg/L		
1	Pb 220.353	576.2	147.8	0.0091	mg/L		
1	Sb 206.833	183.4	102.4	0.0265	mg/L		
1	Se 196.026	121.2	10.7	0.0042	mg/L		
1	Tl 190.800	407.8	18.5	0.0051	mg/L		
1	V 292.402	807.9	1237.4	0.0110	mg/L		
1	Zn 213.856	1675.4	1969.2	0.0197	mg/L		
2	Ag 328.068	3688.5	1982.4	0.0114	mg/L		
2	Al 308.215	9886.9	6066.1	0.2046	mg/L		
2	As 188.979	198.6	70.7	0.0237	mg/L		

2 Ba 233.527	3219.7	4321.6	0.0114	mg/L
2 Be 313.107	10740.5	11019.5	0.0047	mg/L
2 Ca 227.547	875.6	272.7	1.372	mg/L
2 Cd 228.802	580.8	530.8	0.0047	mg/L
2 Co 228.616	1603.8	2174.2	0.0239	mg/L
2 Cr 267.716	1083.1	985.2	0.0109	mg/L
2 Cu 324.754	5049.3	1296.8	0.0052	mg/L
2 Fe 273.955	2386.3	2195.9	0.0547	mg/L
2 K 766.491	1723.8	344.9	0.0955	mg/L
2 Mg 279.079	1732.0	-1135.6	-0.0282	mg/L
2 Mn 257.610	15555.2	14486.8	0.0113	mg/L
2 Mo 202.030	103.4	262.6	0.0160	mg/L
2 Na 330.237	4865.7	393.8	0.4320	mg/L
2 Ni 231.604	619.2	1045.4	0.0238	mg/L
2 Pb 220.353	602.3	173.8	0.0107	mg/L
2 Sb 206.833	179.7	98.7	0.0255	mg/L
2 Se 196.026	131.3	20.7	0.0082	mg/L
2 Tl 190.800	417.1	27.9	0.0077	mg/L
2 V 292.402	749.1	1178.6	0.0105	mg/L
2 Zn 213.856	1680.6	1974.3	0.0198	mg/L
3 Ag 328.068	3620.4	1914.3	0.0110	mg/L
3 Al 308.215	10007.0	6186.1	0.2087	mg/L
3 As 188.979	189.6	61.7	0.0206	mg/L
3 Ba 233.527	3385.1	4487.0	0.0118	mg/L
3 Be 313.107	10816.8	11095.8	0.0048	mg/L
3 Ca 227.547	862.9	260.0	1.309	mg/L
3 Cd 228.802	587.7	537.7	0.0048	mg/L
3 Co 228.616	1587.8	2158.2	0.0237	mg/L
3 Cr 267.716	1091.3	993.4	0.0110	mg/L
3 Cu 324.754	4931.8	1179.3	0.0047	mg/L
3 Fe 273.955	2286.8	2096.4	0.0522	mg/L
3 K 766.491	1822.5	443.6	0.1016	mg/L
3 Mg 279.079	1723.6	-1143.9	-0.0284	mg/L
3 Mn 257.610	15444.6	14376.1	0.0112	mg/L
3 Mo 202.030	115.0	274.1	0.0167	mg/L
3 Na 330.237	4398.4	-73.5	-0.2702	mg/L
3 Ni 231.604	622.4	1048.6	0.0239	mg/L
3 Pb 220.353	590.9	162.5	0.0100	mg/L
3 Sb 206.833	164.3	83.4	0.0216	mg/L
3 Se 196.026	145.1	34.5	0.0136	mg/L
3 Tl 190.800	410.5	21.3	0.0059	mg/L
3 V 292.402	744.0	1173.4	0.0105	mg/L
3 Zn 213.856	1696.2	1989.9	0.0199	mg/L

ean Data ----------

D: CRI A1432 Seq. No.: 7 Sample No.: 8 A/S Pos: 9
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 10:53:43 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	1940.5	0.0112	0.00021	mg/L				1.89%
l 308.215	6180.8	0.2085	0.00378	mg/L				1.81%
s 188.979	63.9	0.0214	0.00204	mg/L				9.56%
a 233.527	4497.4	0.0118	0.00048	mg/L				4.03%
e 313.107	11287.6	0.0049	0.00017	mg/L				3.55%
a 227.547	256.5	1.291	0.0915	mg/L				7.09%
d 228.802	539.5	0.0048	0.00009	mg/L				1.80%
o 228.616	2174.2	0.0239	0.00018	mg/L				0.74%
r 267.716	986.8	0.0109	0.00007	mg/L				0.61%
u 324.754	1351.4	0.0054	0.00082	mg/L				15.16%
e 273.955	2165.4	0.0539	0.00149	mg/L				2.77%
766.491	346.0	0.0956	0.00600	mg/L				6.27%
g 279.079	-1058.8	-0.0263	0.00348	mg/L				13.25%
n 257.610	14803.3	0.0116	0.00050	mg/L				4.37%
o 202.030	267.8	0.0164	0.00036	mg/L				2.19%
a 330.237	164.8	0.0878	0.35130	mg/L				399.99%
i 231.604	1052.3	0.0240	0.00021	mg/L				0.88%
b 220.353	161.3	0.0099	0.00080	mg/L				8.08%
b 206.833	94.8	0.0245	0.00261	mg/L				10.64%
e 196.026	22.0	0.0086	0.00470	mg/L				54.40%

l 190.800	22.6	0.0062	0.00132 mg/L	21.24%
292.402	1196.5	0.0107	0.00032 mg/L	2.97%
n 213.856	1977.8	0.0198	0.00011 mg/L	0.55%

eplicate Data

D: ICSA 1441 Date: 5/19/03 10:56:54 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	1107.4	-598.6	-0.0035	mg/L		
1	Al 308.215	14375453.6	14371632.7	484.8	mg/L		
1	As 188.979	82.5	-45.4	-0.0176	mg/L		
1	Ba 233.527	948.9	2050.7	0.0054	mg/L		
1	Be 313.107	691.2	970.1	0.0004	mg/L		
1	Ca 227.547	99046.9	98444.0	499.9	mg/L		
1	Cd 228.802	-141.2	-191.2	-0.0017	mg/L		
1	Co 228.616	-455.8	114.5	0.0013	mg/L		
1	Cr 267.716	942.3	844.3	0.0094	mg/L		
1	Cu 324.754	2328.8	-1423.7	0.0022	mg/L		
1	Fe 273.955	7675984.6	7675794.2	191.2	mg/L		
1	K 766.491	2424.8	1045.9	0.1389	mg/L		
1	Mg 279.079	19822090.4	19819222.8	491.9	mg/L		
1	Mn 257.610	10321.7	9253.2	-0.0004	mg/L		
1	Mo 202.030	-106.6	52.5	-0.0014	mg/L		
1	Na 330.237	4438.9	-32.9	-0.2092	mg/L		
1	Ni 231.604	-275.5	150.7	0.0034	mg/L		
1	Pb 220.353	-215.2	-643.6	-0.0056	mg/L		
1	Sb 206.833	237.5	156.5	0.0226	mg/L		
1	Se 196.026	120.3	9.8	-0.0061	mg/L		
1	Tl 190.800	701.0	311.8	-0.0205	mg/L		
1	V 292.402	-1219.5	-790.0	0.0003	mg/L		
1	Zn 213.856	3150.0	3443.7	0.0105	mg/L		
2	Ag 328.068	829.2	-876.8	-0.0051	mg/L		
2	Al 308.215	13915659.7	13911838.9	469.3	mg/L		
2	As 188.979	128.2	0.3	-0.0015	mg/L		
2	Ba 233.527	904.2	2006.0	0.0053	mg/L		
2	Be 313.107	697.8	976.7	0.0004	mg/L		
2	Ca 227.547	100417.2	99814.3	506.7	mg/L		
2	Cd 228.802	99.2	49.2	0.0004	mg/L		
2	Co 228.616	-451.7	118.7	0.0013	mg/L		
2	Cr 267.716	1002.6	904.6	0.0100	mg/L		
2	Cu 324.754	2165.9	-1586.6	0.0013	mg/L		
2	Fe 273.955	7425870.5	7425680.0	185.0	mg/L		
2	K 766.491	2703.2	1324.3	0.1561	mg/L		
2	Mg 279.079	19123458.0	19120590.5	474.5	mg/L		
2	Mn 257.610	10157.6	9089.1	-0.0002	mg/L		
2	Mo 202.030	-146.7	12.5	-0.0037	mg/L		
2	Na 330.237	4565.3	93.5	-0.0193	mg/L		
2	Ni 231.604	-308.3	117.9	0.0027	mg/L		
2	Pb 220.353	-42.8	-471.3	0.0040	mg/L		
2	Sb 206.833	154.9	73.9	0.0019	mg/L		
2	Se 196.026	46.7	-63.8	-0.0348	mg/L		
2	Tl 190.800	714.3	325.0	-0.0132	mg/L		
2	V 292.402	-1238.9	-809.5	-0.0001	mg/L		
2	Zn 213.856	3019.6	3313.3	0.0100	mg/L		
3	Ag 328.068	1109.5	-596.5	-0.0034	mg/L		
3	Al 308.215	14346284.6	14342463.7	483.8	mg/L		
3	As 188.979	112.4	-15.5	-0.0071	mg/L		
3	Ba 233.527	856.3	1958.1	0.0051	mg/L		
3	Be 313.107	586.2	865.2	0.0004	mg/L		
3	Ca 227.547	102075.5	101472.6	515.1	mg/L		
3	Cd 228.802	-73.0	-122.9	-0.0011	mg/L		
3	Co 228.616	-417.1	153.2	0.0017	mg/L		
3	Cr 267.716	849.3	751.4	0.0083	mg/L		
3	Cu 324.754	2278.9	-1473.6	0.0020	mg/L		
3	Fe 273.955	7642688.1	7642497.7	190.4	mg/L		
3	K 766.491	3286.0	1907.1	0.1920	mg/L		
3	Mg 279.079	19760100.5	19757232.9	490.3	mg/L		
3	Mn 257.610	10381.4	9313.0	-0.0003	mg/L		

3	Mo 202.030	-87.9	71.3	-0.0003	mg/L
3	Na 330.237	4716.2	244.4	0.2074	mg/L
3	Ni 231.604	-271.0	155.2	0.0035	mg/L
3	Pb 220.353	-23.2	-451.6	0.0062	mg/L
3	Sb 206.833	197.7	116.7	0.0125	mg/L
3	Se 196.026	128.2	17.7	-0.0031	mg/L
3	Tl 190.800	794.5	405.2	0.0056	mg/L
3	V 292.402	-1331.4	-902.0	-0.0007	mg/L
3	Zn 213.856	2947.3	3241.0	0.0086	mg/L

ean Data ----------

D: ICSA 1441 Seq. No.: 8 Sample No.: 3 A/S Pos: 7
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 10:56:54 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Units	RSD
g 328.068	-690.7	-0.0040	0.00093	mg/L				23.35%
l 308.215	14208645.1	479.3	8.68	mg/L				1.81%
s 188.979	-20.2	-0.0087	0.00816	mg/L				93.92%
a 233.527	2005.0	0.0053	0.00012	mg/L				2.31%
e 313.107	937.4	0.0004	0.00003	mg/L				6.68%
a 227.547	99910.3	507.2	7.63	mg/L				1.50%
d 228.802	-88.3	-0.0008	0.00110	mg/L				140.24%
o 228.616	128.8	0.0014	0.00023	mg/L				16.50%
r 267.716	833.4	0.0092	0.00086	mg/L				9.26%
u 324.754	-1494.6	0.0019	0.00047	mg/L				25.44%
e 273.955	7581324.0	188.9	3.38	mg/L				1.79%
766.491	1425.8	0.1623	0.02714	mg/L				16.72%
g 279.079	19565682.1	485.6	9.60	mg/L				1.98%
n 257.610	9218.4	-0.0003	0.00007	mg/L				22.73%
o 202.030	45.4	-0.0018	0.00176	mg/L				96.79%
a 330.237	101.6	-0.0070	0.20858	mg/L				>999.9%
i 231.604	141.3	0.0032	0.00046	mg/L				14.42%
b 220.353	-522.2	0.0015	0.00628	mg/L				405.76%
b 206.833	115.7	0.0123	0.01035	mg/L				83.94%
e 196.026	-12.1	-0.0146	0.01751	mg/L				119.63%
l 190.800	347.4	-0.0094	0.01345	mg/L				143.73%
292.402	-833.8	-0.0002	0.00052	mg/L				296.14%
n 213.856	3332.7	0.0097	0.00100	mg/L				10.35%

eplicate Data ----------

D: ICSAB 1443 Date: 5/19/03 10:59:42 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	168327.3	166621.3	0.9616	mg/L		
1	Al 308.215	14242441.0	14238620.1	480.3	mg/L		
1	As 188.979	2741.0	2613.1	0.8748	mg/L		
1	Ba 233.527	192976.0	194077.8	0.5101	mg/L		
1	Be 313.107	1104499.4	1104778.4	0.4762	mg/L		
1	Ca 227.547	93799.0	93196.1	473.3	mg/L		
1	Cd 228.802	102868.8	102818.8	0.9151	mg/L		
1	Co 228.616	40854.3	41424.7	0.4548	mg/L		
1	Cr 267.716	44005.0	43907.1	0.4868	mg/L		
1	Cu 324.754	117069.2	113316.7	0.4620	mg/L		
1	Fe 273.955	7395652.3	7395461.9	184.2	mg/L		
1	K 766.491	2692.6	1313.7	0.1554	mg/L		
1	Mg 279.079	19296143.1	19293275.5	478.8	mg/L		
1	Mn 257.610	604613.0	603544.6	0.4637	mg/L		
1	Mo 202.030	14371.9	14531.1	0.8830	mg/L		
1	Na 330.237	4657.0	185.2	0.1185	mg/L		
1	Ni 231.604	37947.5	38373.7	0.8750	mg/L		
1	Pb 220.353	14493.4	14064.9	0.9008	mg/L		
1	Sb 206.833	3666.7	3585.7	0.8943	mg/L		
1	Se 196.026	2366.6	2256.0	0.8775	mg/L		
1	Tl 190.800	3675.8	3286.6	0.7982	mg/L		
1	V 292.402	51584.7	52014.2	0.4708	mg/L		
1	Zn 213.856	94291.9	94585.6	0.9250	mg/L		
2	Ag 328.068	167125.4	165419.4	0.9547	mg/L		

2	Al 308.215	13834558.4	13830737.5	466.6	mg/L
2	As 188.979	2754.9	2627.0	0.8798	mg/L
2	Ba 233.527	191234.1	192335.9	0.5055	mg/L
2	Be 313.107	1094646.0	1094924.9	0.4719	mg/L
2	Ca 227.547	92807.0	92204.1	468.2	mg/L
2	Cd 228.802	101799.3	101749.3	0.9056	mg/L
2	Co 228.616	40562.4	41132.7	0.4516	mg/L
2	Cr 267.716	43703.4	43605.4	0.4834	mg/L
2	Cu 324.754	117203.8	113451.3	0.4623	mg/L
2	Fe 273.955	7194510.5	7194320.1	179.2	mg/L
2	K 766.491	3059.5	1680.6	0.1781	mg/L
2	Mg 279.079	18745311.7	18742444.1	465.1	mg/L
2	Mn 257.610	599314.7	598246.2	0.4598	mg/L
2	Mo 202.030	14298.2	14457.3	0.8786	mg/L
2	Na 330.237	4663.0	191.2	0.1275	mg/L
2	Ni 231.604	37553.8	37980.0	0.8661	mg/L
2	Pb 220.353	14471.3	14042.8	0.8985	mg/L
2	Sb 206.833	3645.8	3564.9	0.8895	mg/L
2	Se 196.026	2411.9	2301.4	0.8957	mg/L
2	Tl 190.800	3723.1	3333.9	0.8142	mg/L
2	V 292.402	50956.4	51385.9	0.4650	mg/L
2	Zn 213.856	93820.5	94114.2	0.9209	mg/L
3	Ag 328.068	170321.5	168615.5	0.9731	mg/L
3	Al 308.215	13362316.7	13358495.8	450.6	mg/L
3	As 188.979	2764.5	2636.6	0.8841	mg/L
3	Ba 233.527	195113.4	196215.3	0.5157	mg/L
3	Be 313.107	1117971.5	1118250.5	0.4820	mg/L
3	Ca 227.547	95075.4	94472.5	479.5	mg/L
3	Cd 228.802	103933.8	103883.8	0.9246	mg/L
3	Co 228.616	41470.4	42040.8	0.4615	mg/L
3	Cr 267.716	44523.6	44425.6	0.4925	mg/L
3	Cu 324.754	119685.7	115933.2	0.4720	mg/L
3	Fe 273.955	6963669.5	6963479.0	173.5	mg/L
3	K 766.491	3025.6	1646.7	0.1760	mg/L
3	Mg 279.079	18131650.3	18128782.7	449.9	mg/L
3	Mn 257.610	611471.2	610402.8	0.4695	mg/L
3	Mo 202.030	14823.9	14983.1	0.9108	mg/L
3	Na 330.237	4524.3	52.5	-0.0809	mg/L
3	Ni 231.604	38222.3	38648.5	0.8813	mg/L
3	Pb 220.353	14735.7	14307.2	0.9137	mg/L
3	Sb 206.833	3791.8	3710.8	0.9277	mg/L
3	Se 196.026	2464.5	2354.0	0.9167	mg/L
3	Tl 190.800	3965.7	3576.5	0.8845	mg/L
3	V 292.402	52330.0	52759.5	0.4771	mg/L
3	Zn 213.856	95762.9	96056.6	0.9411	mg/L

ean Data ----------

): ICSAB 1443 Seq. No.: 9 Sample No.: 4 A/S Pos: 8
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 10:59:42 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	166885.4	0.9632	0.00932	mg/L				0.97%
l 308.215	13809284.5	465.8	14.86	mg/L				3.19%
s 188.979	2625.6	0.8796	0.00464	mg/L				0.53%
a 233.527	194209.6	0.5104	0.00511	mg/L				1.00%
e 313.107	1105984.6	0.4767	0.00505	mg/L				1.06%
a 227.547	93290.9	473.7	5.65	mg/L				1.19%
d 228.802	102817.3	0.9151	0.00950	mg/L				1.04%
o 228.616	41532.7	0.4560	0.00509	mg/L				1.12%
r 267.716	43979.4	0.4876	0.00460	mg/L				0.94%
u 324.754	114233.7	0.4654	0.00570	mg/L				1.23%
e 273.955	7184420.3	179.0	5.39	mg/L				3.01%
766.491	1547.0	0.1698	0.01252	mg/L				7.37%
g 279.079	18721500.8	464.6	14.46	mg/L				3.11%
n 257.610	604064.5	0.4643	0.00489	mg/L				1.05%
o 202.030	14657.2	0.8908	0.01749	mg/L				1.96%
a 330.237	142.9	0.0550	0.11782	mg/L				214.12%
. 231.604	38334.1	0.8741	0.00766	mg/L				0.88%
b 220.353	14138.3	0.9044	0.00821	mg/L				0.91%

b 206.833	3620.5	0.9038	0.02079	mg/L	2.30%
e 196.026	2303.8	0.8966	0.01962	mg/L	2.19%
l 190.800	3399.0	0.8323	0.04588	mg/L	5.51%
292.402	52053.2	0.4710	0.00601	mg/L	1.28%
n 213.856	94918.8	0.9290	0.01068	mg/L	1.15%

eplicate Data ----------

D: CCV 1447B Date: 5/19/03 11:02:48 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	174926.9	173220.8	0.9997	mg/L		
1	Al 308.215	155953.0	152132.2	5.132	mg/L		
1	As 188.979	1588.6	1460.7	0.4943	mg/L		
1	Ba 233.527	1954498.8	1955600.6	5.140	mg/L		
1	Be 313.107	1153372.4	1153651.4	0.4972	mg/L		
1	Ca 227.547	10715.6	10112.7	50.89	mg/L		
1	Cd 228.802	112114.4	112064.4	0.9974	mg/L		
1	Co 228.616	184297.9	184868.3	2.030	mg/L		
1	Cr 267.716	45977.1	45879.2	0.5086	mg/L		
1	Cu 324.754	501855.5	498103.0	1.997	mg/L		
1	Fe 273.955	208007.7	207817.3	5.177	mg/L		
1	K 766.491	272000.0	270621.1	15.14	mg/L		
1	Mg 279.079	1031464.4	1028596.8	25.53	mg/L		
1	Mn 257.610	2609929.5	2608861.1	2.036	mg/L		
1	Mo 202.030	32737.0	32896.1	2.009	mg/L		
1	Na 330.237	69928.4	65456.5	98.80	mg/L		
1	Ni 231.604	88670.1	89096.4	2.032	mg/L		
1	Pb 220.353	8847.7	8419.2	0.5190	mg/L		
1	Sb 206.833	7853.8	7772.8	1.997	mg/L		
1	Se 196.026	1441.8	1331.2	0.5235	mg/L		
1	Tl 190.800	2201.6	1812.3	0.4978	mg/L		
1	V 292.402	227618.1	228047.6	2.033	mg/L		
1	Zn 213.856	199136.0	199429.7	1.999	mg/L		
2	Ag 328.068	176530.5	174824.4	1.009	mg/L		
2	Al 308.215	156662.7	152841.8	5.156	mg/L		
2	As 188.979	1574.1	1446.3	0.4896	mg/L		
2	Ba 233.527	1963546.3	1964648.2	5.163	mg/L		
2	Be 313.107	1162716.6	1162995.6	0.5013	mg/L		
2	Ca 227.547	10847.9	10245.0	51.56	mg/L		
2	Cd 228.802	113627.7	113577.7	1.011	mg/L		
2	Co 228.616	185753.7	186324.0	2.046	mg/L		
2	Cr 267.716	46416.1	46318.1	0.5135	mg/L		
2	Cu 324.754	507255.4	503502.9	2.019	mg/L		
2	Fe 273.955	208892.3	208701.8	5.199	mg/L		
2	K 766.491	291328.1	289949.2	16.11	mg/L		
2	Mg 279.079	1039347.1	1036479.6	25.72	mg/L		
2	Mn 257.610	2733854.5	2732786.0	2.133	mg/L		
2	Mo 202.030	33025.4	33184.5	2.027	mg/L		
2	Na 330.237	70618.7	66146.9	99.85	mg/L		
2	Ni 231.604	89118.6	89544.8	2.042	mg/L		
2	Pb 220.353	8687.2	8258.8	0.5091	mg/L		
2	Sb 206.833	7734.6	7653.7	1.966	mg/L		
2	Se 196.026	1392.9	1282.4	0.5043	mg/L		
2	Tl 190.800	2195.2	1806.0	0.4960	mg/L		
2	V 292.402	228783.7	229213.2	2.044	mg/L		
2	Zn 213.856	201934.0	202227.7	2.027	mg/L		
3	Ag 328.068	179368.7	177662.6	1.025	mg/L		
3	Al 308.215	160077.2	156256.4	5.271	mg/L		
3	As 188.979	1585.6	1457.7	0.4935	mg/L		
3	Ba 233.527	2003978.7	2005080.6	5.270	mg/L		
3	Be 313.107	1186729.8	1187008.8	0.5116	mg/L		
3	Ca 227.547	11116.1	10513.2	52.91	mg/L		
3	Cd 228.802	115465.4	115415.4	1.027	mg/L		
3	Co 228.616	189152.1	189722.5	2.083	mg/L		
3	Cr 267.716	47233.4	47135.5	0.5226	mg/L		
3	Cu 324.754	516321.8	512569.3	2.055	mg/L		
3	Fe 273.955	212788.3	212597.8	5.296	mg/L		
3	K 766.491	285403.7	284024.8	15.81	mg/L		

3 Mg 279.079	1059599.1	1056731.5	26.23	mg/L
3 Mn 257.610	2690337.4	2689269.0	2.099	mg/L
3 Mo 202.030	33773.3	33932.4	2.072	mg/L
3 Na 330.237	71672.6	67200.7	101.5	mg/L
3 Ni 231.604	90940.8	91367.0	2.083	mg/L
3 Pb 220.353	8801.2	8372.7	0.5161	mg/L
3 Sb 206.833	7829.5	7748.5	1.990	mg/L
3 Se 196.026	1419.0	1308.5	0.5145	mg/L
3 Tl 190.800	2232.2	1843.0	0.5062	mg/L
3 V 292.402	233645.0	234074.5	2.087	mg/L
3 Zn 213.856	205497.1	205790.8	2.063	mg/L

ean Data ----------

D: CCV 1447B Seq. No.: 10 Sample No.: 5 A/S Pos: 6
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:02:48 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	175236.0	1.011	0.0130	mg/L				1.28%
l 308.215	153743.5	5.186	0.0744	mg/L				1.43%
s 188.979	1454.9	0.4925	0.00255	mg/L				0.52%
a 233.527	1975109.8	5.191	0.0692	mg/L				1.33%
e 313.107	1167885.3	0.5034	0.00742	mg/L				1.47%
a 227.547	10290.3	51.78	1.027	mg/L				1.98%
d 228.802	113685.8	1.012	0.0149	mg/L				1.48%
o 228.616	186971.6	2.053	0.0273	mg/L				1.33%
r 267.716	46444.3	0.5149	0.00707	mg/L				1.37%
u 324.754	504725.1	2.023	0.0293	mg/L				1.45%
e 273.955	209705.6	5.224	0.0634	mg/L				1.21%
766.491	281531.7	15.69	0.498	mg/L				3.18%
g 279.079	1040602.6	25.82	0.360	mg/L				1.39%
n 257.610	2676972.0	2.089	0.0491	mg/L				2.35%
o 202.030	33337.7	2.036	0.0327	mg/L				1.60%
a 330.237	66268.0	100.0	1.34	mg/L				1.34%
i 231.604	90002.7	2.052	0.0274	mg/L				1.34%
b 220.353	8350.2	0.5147	0.00509	mg/L				0.99%
b 206.833	7725.0	1.984	0.0163	mg/L				0.82%
e 196.026	1307.3	0.5141	0.00962	mg/L				1.87%
l 190.800	1820.4	0.5000	0.00544	mg/L				1.09%
292.402	230445.1	2.055	0.0285	mg/L				1.39%
n 213.856	202482.8	2.030	0.0320	mg/L				1.57%

eplicate Data ----------

D: CCB Date: 5/19/03 11:07:40 AM

epl# Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1 Ag 328.068	1559.4	-146.7	-0.0008	mg/L		
1 Al 308.215	3607.7	-213.1	-0.0072	mg/L		
1 As 188.979	142.1	14.3	0.0048	mg/L		
1 Ba 233.527	-896.5	205.3	0.0005	mg/L		
1 Be 313.107	753.1	1032.1	0.0004	mg/L		
1 Ca 227.547	650.8	47.9	0.2409	mg/L		
1 Cd 228.802	64.3	14.3	0.0001	mg/L		
1 Co 228.616	-518.7	51.6	0.0006	mg/L		
1 Cr 267.716	71.2	-26.8	-0.0003	mg/L		
1 Cu 324.754	3053.3	-699.2	-0.0028	mg/L		
1 Fe 273.955	602.7	412.3	0.0103	mg/L		
1 K 766.491	1664.7	285.8	0.0919	mg/L		
1 Mg 279.079	5457.2	2589.6	0.0643	mg/L		
1 Mn 257.610	1457.4	388.9	0.0003	mg/L		
1 Mo 202.030	-141.3	17.8	0.0011	mg/L		
1 Na 330.237	4611.0	139.1	0.0493	mg/L		
1 Ni 231.604	-391.2	35.0	0.0008	mg/L		
1 Pb 220.353	425.5	-3.0	-0.0002	mg/L		
1 Sb 206.833	75.9	-5.0	-0.0013	mg/L		
1 Se 196.026	117.4	6.8	0.0027	mg/L		
1 Tl 190.800	377.5	-11.7	-0.0032	mg/L		
1 V 292.402	-324.0	105.4	0.0009	mg/L		
1 Zn 213.856	-404.3	-110.6	-0.0011	mg/L		

2 Ag 328.068	1819.5	113.5	0.0007	mg/L
2 Al 308.215	3786.5	-34.4	-0.0012	mg/L
2 As 188.979	132.8	4.9	0.0016	mg/L
2 Ba 233.527	-924.3	177.5	0.0005	mg/L
2 Be 313.107	677.4	956.4	0.0004	mg/L
2 Ca 227.547	641.1	38.2	0.1922	mg/L
2 Cd 228.802	60.9	10.9	0.0001	mg/L
2 Co 228.616	-536.9	33.4	0.0004	mg/L
2 Cr 267.716	90.5	-7.4	-0.0001	mg/L
2 Cu 324.754	3359.7	-392.8	-0.0016	mg/L
2 Fe 273.955	507.4	316.9	0.0079	mg/L
2 K 766.491	1658.0	279.1	0.0915	mg/L
2 Mg 279.079	5516.7	2649.1	0.0657	mg/L
2 Mn 257.610	1540.0	471.5	0.0004	mg/L
2 Mo 202.030	-147.5	11.6	0.0007	mg/L
2 Na 330.237	4795.4	323.6	0.3264	mg/L
2 Ni 231.604	-405.7	20.5	0.0005	mg/L
2 Pb 220.353	396.7	-31.8	-0.0020	mg/L
2 Sb 206.833	95.2	14.3	0.0037	mg/L
2 Se 196.026	117.2	6.7	0.0026	mg/L
2 Tl 190.800	381.3	-8.0	-0.0022	mg/L
2 V 292.402	-347.8	81.7	0.0007	mg/L
2 Zn 213.856	-416.6	-122.9	-0.0012	mg/L
3 Ag 328.068	1777.9	71.8	0.0004	mg/L
3 Al 308.215	3943.3	122.4	0.0041	mg/L
3 As 188.979	139.0	11.2	0.0037	mg/L
3 Ba 233.527	-1016.7	85.1	0.0002	mg/L
3 Be 313.107	535.7	814.7	0.0004	mg/L
3 Ca 227.547	635.3	32.5	0.1633	mg/L
3 Cd 228.802	26.0	-24.0	-0.0002	mg/L
3 Co 228.616	-558.4	11.9	0.0001	mg/L
3 Cr 267.716	55.0	-42.9	-0.0005	mg/L
3 Cu 324.754	3359.4	-393.1	-0.0016	mg/L
3 Fe 273.955	350.8	160.4	0.0040	mg/L
3 K 766.491	1327.4	-51.6	0.0710	mg/L
3 Mg 279.079	5460.9	2593.4	0.0644	mg/L
3 Mn 257.610	1461.7	393.3	0.0003	mg/L
3 Mo 202.030	-141.8	17.4	0.0011	mg/L
3 Na 330.237	4584.8	112.9	0.0099	mg/L
3 Ni 231.604	-400.7	25.6	0.0006	mg/L
3 Pb 220.353	413.2	-15.2	-0.0009	mg/L
3 Sb 206.833	99.0	18.0	0.0047	mg/L
3 Se 196.026	110.9	0.4	0.0002	mg/L
3 Tl 190.800	378.4	-10.9	-0.0030	mg/L
3 V 292.402	-442.6	-13.1	-0.0001	mg/L
3 Zn 213.856	-407.2	-113.5	-0.0011	mg/L

ean Data ----------

): CCB Seq. No.: 11 Sample No.: 6 A/S Pos: 1
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:07:40 AM

.ement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
; 328.068	12.9	0.0001	0.00081	mg/L				>999.9%
. 308.215	-41.7	-0.0014	0.00566	mg/L				402.70%
; 188.979	10.1	0.0034	0.00160	mg/L				47.30%
ı 233.527	156.0	0.0004	0.00017	mg/L				40.34%
; 313.107	934.4	0.0004	0.00005	mg/L				11.81%
ı 227.547	39.5	0.1988	0.03924	mg/L				19.74%
i 228.802	0.4	0.0000	0.00019	mg/L				>999.9%
) 228.616	32.3	0.0004	0.00022	mg/L				61.47%
: 267.716	-25.7	-0.0003	0.00020	mg/L				69.09%
ı 324.754	-495.1	-0.0020	0.00071	mg/L				35.72%
: 273.955	296.5	0.0074	0.00317	mg/L				42.89%
766.491	171.1	0.0848	0.01193	mg/L				14.07%
; 279.079	2610.7	0.0648	0.00083	mg/L				1.28%
ı 257.610	417.9	0.0003	0.00004	mg/L				11.13%
) 202.030	15.6	0.0010	0.00021	mg/L				22.06%
ı 330.237	191.9	0.1285	0.17249	mg/L				134.20%

i 231.604	27.0	0.0006	0.00017 mg/L	27.16%
b 220.353	-16.7	-0.0010	0.00089 mg/L	86.79%
b 206.833	9.1	0.0023	0.00320 mg/L	136.18%
e 196.026	4.6	0.0018	0.00144 mg/L	79.46%
l 190.800	-10.2	-0.0028	0.00054 mg/L	19.43%
292.402	58.0	0.0005	0.00056 mg/L	108.12%
n 213.856	-115.7	-0.0012	0.00006 mg/L	5.55%

eplicate Data ----------
D: M-BL 03M1479 Date: 5/19/03 11:11:02 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Ag 328.068	1842.9	136.9	0.0008	mg/L	0.0008	ppm
1	Al 308.215	3748.8	-72.0	-0.0024	mg/L	-0.0024	ppm
1	As 188.979	129.0	1.1	0.0004	mg/L	0.0004	ppm
1	Ba 233.527	-944.1	157.7	0.0004	mg/L	0.0004	ppm
1	Be 313.107	341.6	620.6	0.0003	mg/L	0.0003	ppm
1	Ca 227.547	648.3	45.4	0.2287	mg/L	0.2287	ppm
1	Cd 228.802	58.8	8.8	0.0001	mg/L	0.0001	ppm
1	Co 228.616	-543.5	26.9	0.0003	mg/L	0.0003	ppm
1	Cr 267.716	83.4	-14.6	-0.0002	mg/L	-0.0002	ppm
1	Cu 324.754	4703.6	951.1	0.0038	mg/L	0.0038	ppm
1	Fe 273.955	886.6	696.2	0.0173	mg/L	0.0173	ppm
1	K 766.491	1705.8	326.9	0.0944	mg/L	0.0944	ppm
1	Mg 279.079	4232.6	1365.1	0.0339	mg/L	0.0339	ppm
1	Mn 257.610	1646.6	578.1	0.0005	mg/L	0.0005	ppm
1	Mo 202.030	-148.5	10.7	0.0007	mg/L	0.0007	ppm
1	Na 330.237	4818.0	346.2	0.3604	mg/L	0.3604	ppm
1	Ni 231.604	-396.2	30.0	0.0007	mg/L	0.0007	ppm
1	Pb 220.353	409.8	-18.6	-0.0011	mg/L	-0.0011	ppm
1	Sb 206.833	76.4	-4.6	-0.0012	mg/L	-0.0012	ppm
1	Se 196.026	110.8	0.3	0.0001	mg/L	0.0001	ppm
1	Tl 190.800	392.7	3.5	0.0010	mg/L	0.0010	ppm
1	V 292.402	-562.4	-132.9	-0.0012	mg/L	-0.0012	ppm
1	Zn 213.856	-279.7	14.0	0.0001	mg/L	0.0001	ppm
2	Ag 328.068	1917.1	211.0	0.0012	mg/L	0.0012	ppm
2	Al 308.215	3649.0	-171.9	-0.0058	mg/L	-0.0058	ppm
2	As 188.979	132.3	4.4	0.0015	mg/L	0.0015	ppm
2	Ba 233.527	-1066.8	35.1	0.0001	mg/L	0.0001	ppm
2	Be 313.107	525.8	804.8	0.0003	mg/L	0.0003	ppm
2	Ca 227.547	639.2	36.4	0.1830	mg/L	0.1830	ppm
2	Cd 228.802	44.8	-5.2	0.0000	mg/L	0.0000	ppm
2	Co 228.616	-532.0	38.3	0.0004	mg/L	0.0004	ppm
2	Cr 267.716	73.4	-24.6	-0.0003	mg/L	-0.0003	ppm
2	Cu 324.754	4541.1	788.6	0.0032	mg/L	0.0032	ppm
2	Fe 273.955	747.8	557.3	0.0139	mg/L	0.0139	ppm
2	K 766.491	1869.6	490.6	0.1045	mg/L	0.1045	ppm
2	Mg 279.079	4301.3	1433.7	0.0356	mg/L	0.0356	ppm
2	Mn 257.610	1618.1	549.6	0.0004	mg/L	0.0004	ppm
2	Mo 202.030	-156.1	3.0	0.0002	mg/L	0.0002	ppm
2	Na 330.237	4977.0	505.1	0.5992	mg/L	0.5992	ppm
2	Ni 231.604	-373.1	53.1	0.0012	mg/L	0.0012	ppm
2	Pb 220.353	406.2	-22.3	-0.0014	mg/L	-0.0014	ppm
2	Sb 206.833	79.5	-1.4	-0.0004	mg/L	-0.0004	ppm
2	Se 196.026	110.0	-0.5	-0.0002	mg/L	-0.0002	ppm
2	Tl 190.800	382.7	-6.6	-0.0018	mg/L	-0.0018	ppm
2	V 292.402	-389.1	40.4	0.0004	mg/L	0.0004	ppm
2	Zn 213.856	-310.2	-16.5	-0.0002	mg/L	-0.0002	ppm
3	Ag 328.068	1732.4	26.3	0.0002	mg/L	0.0002	ppm
3	Al 308.215	3710.7	-110.2	-0.0037	mg/L	-0.0037	ppm
3	As 188.979	134.1	6.2	0.0021	mg/L	0.0021	ppm
3	Ba 233.527	-1015.1	86.8	0.0002	mg/L	0.0002	ppm
3	Be 313.107	522.0	801.0	0.0003	mg/L	0.0003	ppm
3	Ca 227.547	669.2	66.3	0.3335	mg/L	0.3335	ppm
3	Cd 228.802	65.4	15.4	0.0001	mg/L	0.0001	ppm
3	Co 228.616	-555.2	15.1	0.0002	mg/L	0.0002	ppm
3	Cr 267.716	67.9	-30.0	-0.0003	mg/L	-0.0003	ppm
3	Cu 324.754	4463.7	711.2	0.0029	mg/L	0.0029	ppm

3	Fe 273.955	607.0	416.5	0.0104	mg/L	0.0104 ppm
3	K 766.491	1423.9	45.0	0.0770	mg/L	0.0770 ppm
3	Mg 279.079	4504.2	1636.7	0.0406	mg/L	0.0406 ppm
3	Mn 257.610	1630.9	562.5	0.0004	mg/L	0.0004 ppm
3	Mo 202.030	-156.8	2.3	0.0001	mg/L	0.0001 ppm
3	Na 330.237	4693.5	221.6	0.1732	mg/L	0.1732 ppm
3	Ni 231.604	-388.1	38.1	0.0009	mg/L	0.0009 ppm
3	Pb 220.353	408.4	-20.0	-0.0012	mg/L	-0.0012 ppm
3	Sb 206.833	87.9	6.9	0.0018	mg/L	0.0018 ppm
3	Se 196.026	112.2	1.7	0.0007	mg/L	0.0007 ppm
3	Tl 190.800	385.2	-4.1	-0.0011	mg/L	-0.0011 ppm
3	V 292.402	-389.7	39.8	0.0004	mg/L	0.0004 ppm
3	Zn 213.856	-329.3	-35.5	-0.0004	mg/L	-0.0004 ppm

ean Data ----------

D: M-BL 03M1479 Seq. No.: 12 Sample No.: 1 A/S Pos: 10
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:11:02 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
g 328.068	124.7	0.0007	0.00054	mg/L	0.0007	0.00054	ppm	74.50%
l 308.215	-118.0	-0.0040	0.00170	mg/L	-0.0040	0.00170	ppm	42.67%
s 188.979	3.9	0.0013	0.00087	mg/L	0.0013	0.00087	ppm	66.58%
a 233.527	93.2	0.0002	0.00016	mg/L	0.0002	0.00016	ppm	66.07%
e 313.107	742.1	0.0003	0.00005	mg/L	0.0003	0.00005	ppm	14.19%
a 227.547	49.4	0.2484	0.07715	mg/L	0.2484	0.07715	ppm	31.06%
d 228.802	6.4	0.0001	0.00009	mg/L	0.0001	0.00009	ppm	165.62%
o 228.616	26.8	0.0003	0.00013	mg/L	0.0003	0.00013	ppm	43.38%
r 267.716	-23.1	-0.0003	0.00009	mg/L	-0.0003	0.00009	ppm	34.00%
a 324.754	816.9	0.0033	0.00049	mg/L	0.0033	0.00049	ppm	14.99%
e 273.955	556.7	0.0139	0.00348	mg/L	0.0139	0.00348	ppm	25.12%
766.491	287.5	0.0920	0.01394	mg/L	0.0920	0.01394	ppm	15.15%
g 279.079	1478.5	0.0367	0.00350	mg/L	0.0367	0.00350	ppm	9.55%
n 257.610	563.4	0.0004	0.00001	mg/L	0.0004	0.00001	ppm	2.53%
o 202.030	5.3	0.0003	0.00028	mg/L	0.0003	0.00028	ppm	86.59%
a 330.237	357.6	0.3776	0.21353	mg/L	0.3776	0.21353	ppm	56.55%
i 231.604	40.4	0.0009	0.00027	mg/L	0.0009	0.00027	ppm	29.00%
o 220.353	-20.3	-0.0013	0.00011	mg/L	-0.0013	0.00011	ppm	9.11%
o 206.833	0.3	0.0001	0.00154	mg/L	0.0001	0.00154	ppm	>999.9%
e 196.026	0.5	0.0002	0.00043	mg/L	0.0002	0.00043	ppm	234.65%
l 190.800	-2.4	-0.0007	0.00144	mg/L	-0.0007	0.00144	ppm	219.42%
292.402	-17.6	-0.0002	0.00089	mg/L	-0.0002	0.00089	ppm	568.37%
n 213.856	-12.7	-0.0001	0.00025	mg/L	-0.0001	0.00025	ppm	197.44%

alibration Summary ----------

ethod: 23ME ICP-M Date: 5/19/03 11:12:11 AM

lement	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
g 328.068	3	Linear-thru-Zero	0.0	173268.7	0.00000	0.999717
l 308.215	3	Linear-thru-Zero	0.0	29644.1	0.00000	0.999093
s 188.979	3	Linear-thru-Zero	0.0	2988.9	0.00000	0.999851
a 233.527	3	Linear-thru-Zero	0.0	380500.3	0.00000	0.999054
e 313.107	3	Linear-thru-Zero	0.0	2320150.4	0.00000	0.999799
a 227.547	3	Linear-thru-Zero	0.0	198.7	0.00000	0.999372
d 228.802	3	Linear-thru-Zero	0.0	112353.8	0.00000	0.999568
o 228.616	3	Linear-thru-Zero	0.0	91089.5	0.00000	0.999146
r 267.716	3	Linear-thru-Zero	0.0	90202.0	0.00000	0.999272
a 324.754	3	Linear-thru-Zero	0.0	249432.4	0.00000	0.999539
e 273.955	3	Linear-thru-Zero	0.0	40140.8	0.00000	0.999198
766.491	3	Non-Linear	-1199.1	16151.5	119.22867	0.998501
g 279.079	3	Linear-thru-Zero	0.0	40294.7	0.00000	0.999303
n 257.610	3	Linear-thru-Zero	0.0	1281200.2	0.00000	0.999592
o 202.030	3	Linear-thru-Zero	0.0	16373.9	0.00000	0.999494
a 330.237	3	Non-Linear	106.3	665.6	-0.04154	0.999986
i 231.604	3	Linear-thru-Zero	0.0	43853.8	0.00000	0.999055
o 220.353	3	Linear-thru-Zero	0.0	16223.0	0.00000	0.999028
o 206.833	3	Linear-thru-Zero	0.0	3864.0	0.00000	0.999800
e 196.026	3	Linear-thru-Zero	0.0	2543.1	0.00000	0.999385
l 190.800	3	Linear-thru-Zero	0.0	3641.0	0.00000	0.999592

292.402	3	Linear-thru-Zero	0.0	112158.5	0.00000	0.999366
n 213.856	3	Linear-thru-Zero	0.0	99752.5	0.00000	0.999559

eplicate Data ----------
D: M-BL 03M1479 Date: 5/19/03 11:14:18 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	1758.4	52.4	0.0003	mg/L	0.0003	ppm
1	Al 308.215	3736.8	-84.0	-0.0028	mg/L	-0.0028	ppm
1	As 188.979	133.4	5.5	0.0018	mg/L	0.0018	ppm
1	Ba 233.527	-1219.8	-117.9	-0.0003	mg/L	-0.0003	ppm
1	Be 313.107	295.1	574.1	0.0002	mg/L	0.0002	ppm
1	Ca 227.547	646.5	43.6	0.2193	mg/L	0.2193	ppm
1	Cd 228.802	48.7	-1.3	0.0000	mg/L	0.0000	ppm
1	Co 228.616	-553.7	16.7	0.0002	mg/L	0.0002	ppm
1	Cr 267.716	65.3	-32.6	-0.0004	mg/L	-0.0004	ppm
1	Cu 324.754	4107.3	354.8	0.0014	mg/L	0.0014	ppm
1	Fe 273.955	323.0	132.6	0.0033	mg/L	0.0033	ppm
1	K 766.491	1466.8	87.9	0.0796	mg/L	0.0796	ppm
1	Mg 279.079	3688.0	820.5	0.0204	mg/L	0.0204	ppm
1	Mn 257.610	1270.0	201.6	0.0002	mg/L	0.0002	ppm
1	Mo 202.030	-158.2	1.0	0.0001	mg/L	0.0001	ppm
1	Na 330.237	4624.0	152.1	0.0688	mg/L	0.0688	ppm
1	Ni 231.604	-404.6	21.6	0.0005	mg/L	0.0005	ppm
1	Pb 220.353	422.3	-6.2	-0.0004	mg/L	-0.0004	ppm
1	Sb 206.833	85.4	4.5	0.0012	mg/L	0.0012	ppm
1	Se 196.026	111.2	0.7	0.0003	mg/L	0.0003	ppm
1	Tl 190.800	374.9	-14.3	-0.0039	mg/L	-0.0039	ppm
1	V 292.402	-364.7	64.8	0.0006	mg/L	0.0006	ppm
1	Zn 213.856	-389.5	-95.7	-0.0010	mg/L	-0.0010	ppm
2	Ag 328.068	1668.5	-37.5	-0.0002	mg/L	-0.0002	ppm
2	Al 308.215	3780.8	-40.0	-0.0013	mg/L	-0.0013	ppm
2	As 188.979	126.9	-1.0	-0.0003	mg/L	-0.0003	ppm
2	Ba 233.527	-1088.3	13.5	0.0000	mg/L	0.0000	ppm
2	Be 313.107	328.5	607.5	0.0003	mg/L	0.0003	ppm
2	Ca 227.547	647.8	44.9	0.2260	mg/L	0.2260	ppm
2	Cd 228.802	47.1	-2.9	0.0000	mg/L	0.0000	ppm
2	Co 228.616	-568.7	1.7	0.0000	mg/L	0.0000	ppm
2	Cr 267.716	93.2	-4.7	-0.0001	mg/L	-0.0001	ppm
2	Cu 324.754	4261.5	509.0	0.0020	mg/L	0.0020	ppm
2	Fe 273.955	378.9	188.5	0.0047	mg/L	0.0047	ppm
2	K 766.491	1488.5	109.6	0.0810	mg/L	0.0810	ppm
2	Mg 279.079	3812.8	945.2	0.0235	mg/L	0.0235	ppm
2	Mn 257.610	1388.5	320.1	0.0002	mg/L	0.0002	ppm
2	Mo 202.030	-152.1	7.0	0.0004	mg/L	0.0004	ppm
2	Na 330.237	4750.3	278.4	0.2586	mg/L	0.2586	ppm
2	Ni 231.604	-412.5	13.7	0.0003	mg/L	0.0003	ppm
2	Pb 220.353	383.9	-44.5	-0.0027	mg/L	-0.0027	ppm
2	Sb 206.833	83.5	2.5	0.0006	mg/L	0.0006	ppm
2	Se 196.026	125.9	15.3	0.0060	mg/L	0.0060	ppm
2	Tl 190.800	384.0	-5.2	-0.0014	mg/L	-0.0014	ppm
2	V 292.402	-354.6	74.9	0.0007	mg/L	0.0007	ppm
2	Zn 213.856	-383.6	-89.9	-0.0009	mg/L	-0.0009	ppm
3	Ag 328.068	1895.4	189.3	0.0011	mg/L	0.0011	ppm
3	Al 308.215	3735.1	-85.8	-0.0029	mg/L	-0.0029	ppm
3	As 188.979	137.7	9.8	0.0033	mg/L	0.0033	ppm
3	Ba 233.527	-1060.5	41.3	0.0001	mg/L	0.0001	ppm
3	Be 313.107	411.0	689.9	0.0003	mg/L	0.0003	ppm
3	Ca 227.547	678.3	75.4	0.3793	mg/L	0.3793	ppm
3	Cd 228.802	65.5	15.6	0.0001	mg/L	0.0001	ppm
3	Co 228.616	-556.8	13.5	0.0001	mg/L	0.0001	ppm
3	Cr 267.716	100.4	2.5	0.0000	mg/L	0.0000	ppm
3	Cu 324.754	3986.7	234.2	0.0009	mg/L	0.0009	ppm
3	Fe 273.955	438.2	247.7	0.0062	mg/L	0.0062	ppm
3	K 766.491	1479.3	100.4	0.0804	mg/L	0.0804	ppm
3	Mg 279.079	3956.3	1088.8	0.0270	mg/L	0.0270	ppm
3	Mn 257.610	1458.3	389.9	0.0003	mg/L	0.0003	ppm
3	Mo 202.030	-162.7	-3.5	-0.0002	mg/L	-0.0002	ppm

3 Na 330.237	4740.6	268.7	0.2440 mg/L	0.2440 ppm
3 Ni 231.604	-401.7	24.5	0.0006 mg/L	0.0006 ppm
3 Pb 220.353	414.9	-13.6	-0.0008 mg/L	-0.0008 ppm
3 Sb 206.833	72.8	-8.1	-0.0021 mg/L	-0.0021 ppm
3 Se 196.026	121.3	10.7	0.0042 mg/L	0.0042 ppm
3 Tl 190.800	372.8	-16.4	-0.0045 mg/L	-0.0045 ppm
3 V 292.402	-518.3	-88.9	-0.0008 mg/L	-0.0008 ppm
3 Zn 213.856	-409.6	-115.8	-0.0012 mg/L	-0.0012 ppm

ean Data ----------

D: M-BL 03M1479 Seq. No.: 12 Sample No.: 1 A/S Pos: 10
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:14:18 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	68.0	0.0004	0.00066	mg/L	0.0004	0.00066	ppm	167.86%
l 308.215	-69.9	-0.0024	0.00087	mg/L	-0.0024	0.00087	ppm	37.07%
s 188.979	4.8	0.0016	0.00182	mg/L	0.0016	0.00182	ppm	114.46%
a 233.527	-21.0	-0.0001	0.00022	mg/L	-0.0001	0.00022	ppm	404.11%
e 313.107	623.8	0.0003	0.00003	mg/L	0.0003	0.00003	ppm	9.56%
a 227.547	54.6	0.2749	0.09053	mg/L	0.2749	0.09053	ppm	32.93%
d 228.802	3.8	0.0000	0.00009	mg/L	0.0000	0.00009	ppm	269.91%
o 228.616	10.6	0.0001	0.00009	mg/L	0.0001	0.00009	ppm	74.46%
r 267.716	-11.6	-0.0001	0.00021	mg/L	-0.0001	0.00021	ppm	159.56%
u 324.754	366.0	0.0015	0.00055	mg/L	0.0015	0.00055	ppm	37.63%
e 273.955	189.6	0.0047	0.00143	mg/L	0.0047	0.00143	ppm	30.38%
766.491	99.3	0.0803	0.00067	mg/L	0.0803	0.00067	ppm	0.84%
g 279.079	951.5	0.0236	0.00333	mg/L	0.0236	0.00333	ppm	14.11%
n 257.610	303.8	0.0002	0.00007	mg/L	0.0002	0.00007	ppm	31.33%
o 202.030	1.5	0.0001	0.00032	mg/L	0.0001	0.00032	ppm	358.30%
a 330.237	233.1	0.1905	0.10563	mg/L	0.1905	0.10563	ppm	55.45%
i 231.604	20.0	0.0005	0.00013	mg/L	0.0005	0.00013	ppm	27.96%
b 220.353	-21.4	-0.0013	0.00125	mg/L	-0.0013	0.00125	ppm	94.96%
b 206.833	-0.4	-0.0001	0.00175	mg/L	-0.0001	0.00175	ppm	>999.9%
e 196.026	8.9	0.0035	0.00295	mg/L	0.0035	0.00295	ppm	84.12%
l 190.800	-12.0	-0.0033	0.00163	mg/L	-0.0033	0.00163	ppm	49.58%
292.402	16.9	0.0002	0.00082	mg/L	0.0002	0.00082	ppm	542.00%
n 213.856	-100.5	-0.0010	0.00014	mg/L	-0.0010	0.00014	ppm	13.56%

eplicate Data ----------

D: Calib Blank Date: 5/19/03 11:16:38 AM

epl# Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units
1 Ag 328.068	1741.0	1741.0	0	mg/L
1 Al 308.215	3470.1	3470.1	0	mg/L
1 As 188.979	129.6	129.6	0	mg/L
1 Ba 233.527	-1046.9	-1046.9	0	mg/L
1 Be 313.107	422.9	422.9	0	mg/L
1 Ca 227.547	656.2	656.2	0	mg/L
1 Cd 228.802	25.9	25.9	0	mg/L
1 Co 228.616	-549.5	-549.5	0	mg/L
1 Cr 267.716	71.8	71.8	0	mg/L
1 Cu 324.754	3457.6	3457.6	0	mg/L
1 Fe 273.955	371.7	371.7	0	mg/L
1 K 766.491	1258.6	1258.6	0	mg/L
1 Mg 279.079	3294.2	3294.2	0	mg/L
1 Mn 257.610	1488.0	1488.0	0	mg/L
1 Mo 202.030	-162.1	-162.1	0	mg/L
1 Na 330.237	4912.9	4912.9	0	mg/L
1 Ni 231.604	-413.7	-413.7	0	mg/L
1 Pb 220.353	413.0	413.0	0	mg/L
1 Sb 206.833	73.1	73.1	0	mg/L
1 Se 196.026	112.7	112.7	0	mg/L
1 Tl 190.800	364.4	364.4	0	mg/L
1 V 292.402	-437.7	-437.7	0	mg/L
1 Zn 213.856	-423.3	-423.3	0	mg/L
2 Ag 328.068	1762.6	1762.6	0	mg/L
2 Al 308.215	3607.7	3607.7	0	mg/L

2 As 188.979	129.1	129.1	0	mg/L
2 Ba 233.527	-986.7	-986.7	0	mg/L
2 Be 313.107	139.3	139.3	0	mg/L
2 Ca 227.547	654.2	654.2	0	mg/L
2 Cd 228.802	31.1	31.1	0	mg/L
2 Co 228.616	-557.5	-557.5	0	mg/L
2 Cr 267.716	68.8	68.8	0	mg/L
2 Cu 324.754	3258.4	3258.4	0	mg/L
2 Fe 273.955	458.0	458.0	0	mg/L
2 K 766.491	1539.0	1539.0	0	mg/L
2 Mg 279.079	3311.6	3311.6	0	mg/L
2 Mn 257.610	1310.9	1310.9	0	mg/L
2 Mo 202.030	-150.9	-150.9	0	mg/L
2 Na 330.237	4511.0	4511.0	0	mg/L
2 Ni 231.604	-390.8	-390.8	0	mg/L
2 Pb 220.353	399.9	399.9	0	mg/L
2 Sb 206.833	78.6	78.6	0	mg/L
2 Se 196.026	114.7	114.7	0	mg/L
2 Tl 190.800	368.6	368.6	0	mg/L
2 V 292.402	-475.2	-475.2	0	mg/L
2 Zn 213.856	-435.1	-435.1	0	mg/L
3 Ag 328.068	1823.9	1823.9	0	mg/L
3 Al 308.215	3676.3	3676.3	0	mg/L
3 As 188.979	131.1	131.1	0	mg/L
3 Ba 233.527	-1035.0	-1035.0	0	mg/L
3 Be 313.107	208.2	208.2	0	mg/L
3 Ca 227.547	660.1	660.1	0	mg/L
3 Cd 228.802	43.4	43.4	0	mg/L
3 Co 228.616	-555.8	-555.8	0	mg/L
3 Cr 267.716	85.2	85.2	0	mg/L
3 Cu 324.754	3280.6	3280.6	0	mg/L
3 Fe 273.955	247.1	247.1	0	mg/L
3 K 766.491	1838.8	1838.8	0	mg/L
3 Mg 279.079	3508.1	3508.1	0	mg/L
3 Mn 257.610	1200.7	1200.7	0	mg/L
3 Mo 202.030	-145.0	-145.0	0	mg/L
3 Na 330.237	4522.6	4522.6	0	mg/L
3 Ni 231.604	-426.3	-426.3	0	mg/L
3 Pb 220.353	403.8	403.8	0	mg/L
3 Sb 206.833	88.7	88.7	0	mg/L
3 Se 196.026	116.9	116.9	0	mg/L
3 Tl 190.800	371.5	371.5	0	mg/L
3 V 292.402	-232.2	-232.2	0	mg/L
3 Zn 213.856	-453.3	-453.3	0	mg/L

ean Data ----------

D: Calib Blank Seq. No.: 1 A/S Pos: 1
Data: Original Date: 5/19/03 11:16:38 AM

lement	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
g 328.068	1775.8	42.99	2.42%	0	mg/L
l 308.215	3584.7	104.97	2.93%	0	mg/L
s 188.979	129.9	1.03	0.79%	0	mg/L
a 233.527	-1022.9	31.89	3.12%	0	mg/L
e 313.107	256.8	147.89	57.59%	0	mg/L
a 227.547	656.8	3.00	0.46%	0	mg/L
d 228.802	33.5	8.98	26.84%	0	mg/L
o 228.616	-554.2	4.21	0.76%	0	mg/L
r 267.716	75.3	8.73	11.60%	0	mg/L
u 324.754	3332.2	109.16	3.28%	0	mg/L
e 273.955	358.9	106.02	29.54%	0	mg/L
766.491	1545.5	290.20	18.78%	0	mg/L
g 279.079	3371.3	118.78	3.52%	0	mg/L
n 257.610	1333.2	144.96	10.87%	0	mg/L
o 202.030	-152.7	8.66	5.67%	0	mg/L
a 330.237	4648.8	228.74	4.92%	0	mg/L
i 231.604	-410.3	18.00	4.39%	0	mg/L
b 220.353	405.5	6.72	1.66%	0	mg/L
b 206.833	80.1	7.95	9.92%	0	mg/L
e 196.026	114.8	2.09	1.82%	0	mg/L

l 190.800	368.2	3.61	0.98%	0 mg/L
292.402	-381.7	130.83	34.28%	0 mg/L
n 213.856	-437.2	15.16	3.47%	0 mg/L

alibration Summary
ethod: 23ME ICP-M Date: 5/19/03 11:17:36 AM

lement	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
g 328.068	3	Linear-thru-Zero	0.0	173268.7	0.00000	0.999717
l 308.215	3	Linear-thru-Zero	0.0	29644.1	0.00000	0.999093
s 188.979	3	Linear-thru-Zero	0.0	2988.9	0.00000	0.999851
a 233.527	3	Linear-thru-Zero	0.0	380500.3	0.00000	0.999054
e 313.107	3	Linear-thru-Zero	0.0	2320150.4	0.00000	0.999799
a 227.547	3	Linear-thru-Zero	0.0	198.7	0.00000	0.999372
d 228.802	3	Linear-thru-Zero	0.0	112353.8	0.00000	0.999568
o 228.616	3	Linear-thru-Zero	0.0	91089.5	0.00000	0.999146
r 267.716	3	Linear-thru-Zero	0.0	90202.0	0.00000	0.999272
u 324.754	3	Linear-thru-Zero	0.0	249432.4	0.00000	0.999539
e 273.955	3	Linear-thru-Zero	0.0	40140.8	0.00000	0.999198
766.491	3	Non-Linear	-1199.1	16151.5	119.22867	0.998501
g 279.079	3	Linear-thru-Zero	0.0	40294.7	0.00000	0.999303
n 257.610	3	Linear-thru-Zero	0.0	1281200.2	0.00000	0.999592
o 202.030	3	Linear-thru-Zero	0.0	16373.9	0.00000	0.999494
a 330.237	3	Non-Linear	106.3	665.6	-0.04154	0.999986
i 231.604	3	Linear-thru-Zero	0.0	43853.8	0.00000	0.999055
b 220.353	3	Linear-thru-Zero	0.0	16223.0	0.00000	0.999028
b 206.833	3	Linear-thru-Zero	0.0	3864.0	0.00000	0.999800
e 196.026	3	Linear-thru-Zero	0.0	2543.1	0.00000	0.999385
l 190.800	3	Linear-thru-Zero	0.0	3641.0	0.00000	0.999592
292.402	3	Linear-thru-Zero	0.0	112158.5	0.00000	0.999366
n 213.856	3	Linear-thru-Zero	0.0	99752.5	0.00000	0.999559

alibration Summary
ethod: 23ME ICP-M Date: 5/19/03 11:17:51 AM

lement	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
g 328.068	3	Linear-thru-Zero	0.0	173268.7	0.00000	0.999717
l 308.215	3	Linear-thru-Zero	0.0	29644.1	0.00000	0.999093
s 188.979	3	Linear-thru-Zero	0.0	2988.9	0.00000	0.999851
a 233.527	3	Linear-thru-Zero	0.0	380500.3	0.00000	0.999054
e 313.107	3	Linear-thru-Zero	0.0	2320150.4	0.00000	0.999799
a 227.547	3	Linear-thru-Zero	0.0	198.7	0.00000	0.999372
d 228.802	3	Linear-thru-Zero	0.0	112353.8	0.00000	0.999568
o 228.616	3	Linear-thru-Zero	0.0	91089.5	0.00000	0.999146
r 267.716	3	Linear-thru-Zero	0.0	90202.0	0.00000	0.999272
u 324.754	3	Linear-thru-Zero	0.0	249432.4	0.00000	0.999539
e 273.955	3	Linear-thru-Zero	0.0	40140.8	0.00000	0.999198
766.491	3	Non-Linear	-1199.1	16151.5	119.22867	0.998501
g 279.079	3	Linear-thru-Zero	0.0	40294.7	0.00000	0.999303
n 257.610	3	Linear-thru-Zero	0.0	1281200.2	0.00000	0.999592
o 202.030	3	Linear-thru-Zero	0.0	16373.9	0.00000	0.999494
a 330.237	3	Non-Linear	106.3	665.6	-0.04154	0.999986
i 231.604	3	Linear-thru-Zero	0.0	43853.8	0.00000	0.999055
b 220.353	3	Linear-thru-Zero	0.0	16223.0	0.00000	0.999028
b 206.833	3	Linear-thru-Zero	0.0	3864.0	0.00000	0.999800
e 196.026	3	Linear-thru-Zero	0.0	2543.1	0.00000	0.999385
l 190.800	3	Linear-thru-Zero	0.0	3641.0	0.00000	0.999592
292.402	3	Linear-thru-Zero	0.0	112158.5	0.00000	0.999366
n 213.856	3	Linear-thru-Zero	0.0	99752.5	0.00000	0.999559

eplicate Data
): CCV 1447B Date: 5/19/03 11:19:18 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	171223.5	169447.7	0.9779	mg/L		
1	Al 308.215	153405.9	149821.2	5.054	mg/L		

1	As 188.979	1554.7	1424.8	0.4822	mg/L
1	Ba 233.527	1920469.5	1921492.4	5.050	mg/L
1	Be 313.107	1125271.7	1125014.9	0.4849	mg/L
1	Ca 227.547	10647.7	9990.8	50.28	mg/L
1	Cd 228.802	109422.9	109389.4	0.9736	mg/L
1	Co 228.616	180478.9	181033.1	1.987	mg/L
1	Cr 267.716	45223.3	45148.1	0.5005	mg/L
1	Cu 324.754	492021.6	488689.3	1.959	mg/L
1	Fe 273.955	203049.6	202690.7	5.049	mg/L
1	K 766.491	288746.3	287200.9	15.97	mg/L
1	Mg 279.079	1009541.3	1006170.0	24.97	mg/L
1	Mn 257.610	2687791.5	2686458.3	2.097	mg/L
1	Mo 202.030	32139.3	32292.0	1.972	mg/L
1	Na 330.237	69336.8	64687.9	97.63	mg/L
1	Ni 231.604	86652.9	87063.2	1.985	mg/L
1	Pb 220.353	8792.2	8386.6	0.5170	mg/L
1	Sb 206.833	7761.4	7681.3	1.973	mg/L
1	Se 196.026	1425.3	1310.5	0.5153	mg/L
1	Tl 190.800	2138.5	1770.4	0.4862	mg/L
1	V 292.402	224347.9	224729.6	2.004	mg/L
1	Zn 213.856	194457.6	194894.8	1.954	mg/L
2	Ag 328.068	179718.6	177942.8	1.027	mg/L
2	Al 308.215	160921.8	157337.1	5.308	mg/L
2	As 188.979	1550.3	1420.4	0.4810	mg/L
2	Ba 233.527	2007917.3	2008940.2	5.280	mg/L
2	Be 313.107	1177215.7	1176958.9	0.5073	mg/L
2	Ca 227.547	11016.0	10359.2	52.13	mg/L
2	Cd 228.802	115004.8	114971.4	1.023	mg/L
2	Co 228.616	188224.3	188778.6	2.072	mg/L
2	Cr 267.716	47414.3	47339.0	0.5248	mg/L
2	Cu 324.754	515679.8	512347.6	2.054	mg/L
2	Fe 273.955	212602.4	212243.4	5.287	mg/L
2	K 766.491	276254.1	274708.6	15.34	mg/L
2	Mg 279.079	1056845.5	1053474.2	26.14	mg/L
2	Mn 257.610	2599807.9	2598474.7	2.028	mg/L
2	Mo 202.030	33811.1	33963.8	2.074	mg/L
2	Na 330.237	72871.7	68222.8	103.0	mg/L
2	Ni 231.604	90202.7	90613.0	2.066	mg/L
2	Pb 220.353	8783.0	8377.5	0.5164	mg/L
2	Sb 206.833	7763.9	7683.8	1.973	mg/L
2	Se 196.026	1415.0	1300.2	0.5113	mg/L
2	Tl 190.800	2113.2	1745.0	0.4793	mg/L
2	V 292.402	234705.3	235087.0	2.096	mg/L
2	Zn 213.856	204630.6	205067.9	2.056	mg/L
3	Ag 328.068	175660.3	173884.5	1.004	mg/L
3	Al 308.215	157391.9	153807.2	5.188	mg/L
3	As 188.979	1568.9	1438.9	0.4871	mg/L
3	Ba 233.527	1964323.1	1965346.0	5.165	mg/L
3	Be 313.107	1152097.8	1151841.1	0.4965	mg/L
3	Ca 227.547	10765.7	10108.8	50.87	mg/L
3	Cd 228.802	112235.2	112201.8	0.9986	mg/L
3	Co 228.616	184328.7	184883.0	2.030	mg/L
3	Cr 267.716	46442.7	46367.4	0.5140	mg/L
3	Cu 324.754	504044.1	500711.8	2.007	mg/L
3	Fe 273.955	208040.8	207681.9	5.174	mg/L
3	K 766.491	281968.1	280422.6	15.63	mg/L
3	Mg 279.079	1034232.0	1030860.7	25.58	mg/L
3	Mn 257.610	2637799.5	2636466.3	2.058	mg/L
3	Mo 202.030	32917.2	33069.9	2.020	mg/L
3	Na 330.237	71234.5	66585.7	100.5	mg/L
3	Ni 231.604	88426.9	88837.2	2.026	mg/L
3	Pb 220.353	8744.6	8339.1	0.5140	mg/L
3	Sb 206.833	7735.6	7655.4	1.966	mg/L
3	Se 196.026	1418.0	1303.2	0.5124	mg/L
3	Tl 190.800	2164.8	1796.6	0.4934	mg/L
3	V 292.402	228927.3	229309.0	2.045	mg/L
3	Zn 213.856	199935.6	200372.8	2.009	mg/L

ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:19:18 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
g 328.068	173758.3	1.003	0.0245	mg/L				2.45%
l 308.215	153655.2	5.183	0.1268	mg/L				2.45%
s 188.979	1428.0	0.4834	0.00321	mg/L				0.66%
a 233.527	1965259.5	5.165	0.1149	mg/L				2.22%
e 313.107	1151271.6	0.4962	0.01120	mg/L				2.26%
a 227.547	10153.0	51.09	0.947	mg/L				1.85%
d 228.802	112187.5	0.9985	0.02484	mg/L				2.49%
o 228.616	184898.2	2.030	0.0425	mg/L				2.09%
r 267.716	46284.8	0.5131	0.01217	mg/L				2.37%
u 324.754	500582.9	2.007	0.0474	mg/L				2.36%
e 273.955	207538.7	5.170	0.1190	mg/L				2.30%
766.491	280777.4	15.65	0.314	mg/L				2.01%
g 279.079	1030168.3	25.57	0.587	mg/L				2.30%
n 257.610	2640466.4	2.061	0.0344	mg/L				1.67%
o 202.030	33108.6	2.022	0.0511	mg/L				2.53%
a 330.237	66498.8	100.4	2.69	mg/L				2.68%
i 231.604	88837.8	2.026	0.0405	mg/L				2.00%
b 220.353	8367.7	0.5158	0.00155	mg/L				0.30%
b 206.833	7673.5	1.971	0.0041	mg/L				0.21%
e 196.026	1304.7	0.5130	0.00208	mg/L				0.41%
l 190.800	1770.7	0.4863	0.00709	mg/L				1.46%
292.402	229708.6	2.048	0.0463	mg/L				2.26%
n 213.856	200111.8	2.006	0.0510	mg/L				2.54%

eplicate Data

D: CCB Date: 5/19/03 11:22:49 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	1916.2	140.4	0.0008	mg/L		
1	Al 308.215	3577.6	-7.1	-0.0002	mg/L		
1	As 188.979	128.9	-1.1	-0.0004	mg/L		
1	Ba 233.527	-680.7	342.2	0.0009	mg/L		
1	Be 313.107	980.5	723.7	0.0003	mg/L		
1	Ca 227.547	622.0	-34.8	-0.1752	mg/L		
1	Cd 228.802	10.1	-23.4	-0.0002	mg/L		
1	Co 228.616	-489.6	64.6	0.0007	mg/L		
1	Cr 267.716	60.3	-15.0	-0.0002	mg/L		
1	Cu 324.754	3107.2	-225.0	-0.0009	mg/L		
1	Fe 273.955	644.6	285.7	0.0071	mg/L		
1	K 766.491	1722.7	177.3	0.0852	mg/L		
1	Mg 279.079	2990.8	-380.5	-0.0094	mg/L		
1	Mn 257.610	2795.0	1461.8	0.0011	mg/L		
1	Mo 202.030	-138.0	14.6	0.0009	mg/L		
1	Na 330.237	4678.0	29.2	-0.1159	mg/L		
1	Ni 231.604	-396.8	13.5	0.0003	mg/L		
1	Pb 220.353	417.4	11.9	0.0007	mg/L		
1	Sb 206.833	80.6	0.5	0.0001	mg/L		
1	Se 196.026	116.7	1.9	0.0008	mg/L		
1	Tl 190.800	367.1	-1.1	-0.0003	mg/L		
1	V 292.402	-415.6	-33.9	-0.0003	mg/L		
1	Zn 213.856	-369.0	68.2	0.0007	mg/L		
2	Ag 328.068	1555.8	-220.0	-0.0013	mg/L		
2	Al 308.215	3533.5	-51.2	-0.0017	mg/L		
2	As 188.979	142.2	12.2	0.0041	mg/L		
2	Ba 233.527	-911.3	111.6	0.0003	mg/L		
2	Be 313.107	959.4	702.6	0.0003	mg/L		
2	Ca 227.547	634.7	-22.1	-0.1112	mg/L		
2	Cd 228.802	42.8	9.4	0.0001	mg/L		
2	Co 228.616	-498.7	55.6	0.0006	mg/L		
2	Cr 267.716	61.4	-13.9	-0.0002	mg/L		
2	Cu 324.754	3167.1	-165.2	-0.0007	mg/L		
2	Fe 273.955	607.9	248.9	0.0062	mg/L		
2	K 766.491	1338.4	-207.1	0.0614	mg/L		
2	Mg 279.079	2527.0	-844.3	-0.0210	mg/L		

2 Mn 257.610	2682.0	1348.8	0.0011	mg/L
2 Mo 202.030	-137.1	15.6	0.0010	mg/L
2 Na 330.237	4751.7	102.9	-0.0052	mg/L
2 Ni 231.604	-383.6	26.7	0.0006	mg/L
2 Pb 220.353	411.7	6.1	0.0004	mg/L
2 Sb 206.833	95.3	15.1	0.0039	mg/L
2 Se 196.026	117.0	2.2	0.0009	mg/L
2 Tl 190.800	368.3	0.1	0.0000	mg/L
2 V 292.402	-498.2	-116.5	-0.0010	mg/L
2 Zn 213.856	-390.4	46.8	0.0005	mg/L
3 Ag 328.068	1768.2	-7.6	0.0000	mg/L
3 Al 308.215	3553.0	-31.7	-0.0011	mg/L
3 As 188.979	131.2	1.3	0.0004	mg/L
3 Ba 233.527	-913.1	109.8	0.0003	mg/L
3 Be 313.107	669.8	413.1	0.0002	mg/L
3 Ca 227.547	662.4	5.5	0.0279	mg/L
3 Cd 228.802	56.9	23.4	0.0002	mg/L
3 Co 228.616	-524.5	29.8	0.0003	mg/L
3 Cr 267.716	85.7	10.4	0.0001	mg/L
3 Cu 324.754	3384.7	52.5	0.0002	mg/L
3 Fe 273.955	519.8	160.8	0.0040	mg/L
3 K 766.491	1438.6	-106.9	0.0676	mg/L
3 Mg 279.079	2791.5	-579.8	-0.0144	mg/L
3 Mn 257.610	2209.1	875.9	0.0007	mg/L
3 Mo 202.030	-134.6	18.1	0.0011	mg/L
3 Na 330.237	4638.3	-10.6	-0.1756	mg/L
3 Ni 231.604	-403.9	6.4	0.0001	mg/L
3 Pb 220.353	417.4	11.9	0.0007	mg/L
3 Sb 206.833	88.4	8.2	0.0021	mg/L
3 Se 196.026	107.5	-7.3	-0.0029	mg/L
3 Tl 190.800	364.2	-4.0	-0.0011	mg/L
3 V 292.402	-445.3	-63.6	-0.0006	mg/L
3 Zn 213.856	-407.4	29.8	0.0003	mg/L

ean Data ----------

D: CCB Seq. No.: 11 Sample No.: 6 A/S Pos: 1
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:22:49 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	-29.1	-0.0002	0.00105	mg/L				623.43%
l 308.215	-30.0	-0.0010	0.00075	mg/L				73.74%
s 188.979	4.2	0.0014	0.00237	mg/L				170.36%
a 233.527	187.9	0.0005	0.00035	mg/L				71.14%
e 313.107	613.1	0.0003	0.00007	mg/L				28.31%
a 227.547	-17.1	-0.0862	0.10383	mg/L				120.52%
d 228.802	3.1	0.0000	0.00021	mg/L				764.34%
o 228.616	50.0	0.0005	0.00020	mg/L				36.17%
r 267.716	-6.1	-0.0001	0.00016	mg/L				233.44%
u 324.754	-112.6	-0.0005	0.00059	mg/L				129.71%
e 273.955	231.8	0.0058	0.00160	mg/L				27.68%
766.491	-45.5	0.0714	0.01233	mg/L				17.27%
g 279.079	-601.5	-0.0149	0.00577	mg/L				38.68%
n 257.610	1228.8	0.0010	0.00024	mg/L				25.30%
o 202.030	16.1	0.0010	0.00011	mg/L				11.11%
a 330.237	40.5	-0.0989	0.08646	mg/L				87.42%
i 231.604	15.5	0.0004	0.00023	mg/L				66.21%
b 220.353	10.0	0.0006	0.00021	mg/L				33.38%
b 206.833	7.9	0.0021	0.00190	mg/L				92.47%
e 196.026	-1.1	-0.0004	0.00214	mg/L				514.51%
l 190.800	-1.6	-0.0004	0.00058	mg/L				129.39%
292.402	-71.4	-0.0006	0.00037	mg/L				58.61%
n 213.856	48.3	0.0005	0.00019	mg/L				39.87%

eplicate Data ----------

D: M-BL 03M1479 Date: 5/19/03 11:26:11 AM

epl# Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units

1	Ag 328.068	1690.7	-85.1	-0.0005	mg/L	-0.0005 ppm
1	Al 308.215	3654.6	69.9	0.0024	mg/L	0.0024 ppm
1	As 188.979	144.3	14.4	0.0048	mg/L	0.0048 ppm
1	Ba 233.527	-914.2	108.7	0.0003	mg/L	0.0003 ppm
1	Be 313.107	498.1	241.3	0.0001	mg/L	0.0001 ppm
1	Ca 227.547	668.3	11.4	0.0576	mg/L	0.0576 ppm
1	Cd 228.802	16.5	-16.9	-0.0002	mg/L	-0.0002 ppm
1	Co 228.616	-564.4	-10.2	-0.0001	mg/L	-0.0001 ppm
1	Cr 267.716	86.5	11.2	0.0001	mg/L	0.0001 ppm
1	Cu 324.754	3418.3	86.1	0.0003	mg/L	0.0003 ppm
1	Fe 273.955	536.5	177.6	0.0044	mg/L	0.0044 ppm
1	K 766.491	1945.1	399.6	0.0989	mg/L	0.0989 ppm
1	Mg 279.079	3616.5	245.2	0.0061	mg/L	0.0061 ppm
1	Mn 257.610	1964.6	631.4	0.0005	mg/L	0.0005 ppm
1	Mo 202.030	-152.9	-0.3	0.0000	mg/L	0.0000 ppm
1	Na 330.237	4850.5	201.7	0.1432	mg/L	0.1432 ppm
1	Ni 231.604	-392.0	18.3	0.0004	mg/L	0.0004 ppm
1	Pb 220.353	413.9	8.4	0.0005	mg/L	0.0005 ppm
1	Sb 206.833	78.4	-1.8	-0.0005	mg/L	-0.0005 ppm
1	Se 196.026	102.1	-12.7	-0.0050	mg/L	-0.0050 ppm
1	Tl 190.800	372.4	4.3	0.0012	mg/L	0.0012 ppm
1	V 292.402	-438.0	-56.3	-0.0005	mg/L	-0.0005 ppm
1	Zn 213.856	-334.7	102.5	0.0010	mg/L	0.0010 ppm
2	Ag 328.068	2005.5	229.7	0.0013	mg/L	0.0013 ppm
2	Al 308.215	3596.0	11.3	0.0004	mg/L	0.0004 ppm
2	As 188.979	134.7	4.7	0.0016	mg/L	0.0016 ppm
2	Ba 233.527	-1089.8	-66.9	-0.0002	mg/L	-0.0002 ppm
2	Be 313.107	623.7	367.0	0.0002	mg/L	0.0002 ppm
2	Ca 227.547	647.5	-9.4	-0.0471	mg/L	-0.0471 ppm
2	Cd 228.802	33.5	0.1	0.0000	mg/L	0.0000 ppm
2	Co 228.616	-557.0	-2.8	0.0000	mg/L	0.0000 ppm
2	Cr 267.716	93.3	18.0	0.0002	mg/L	0.0002 ppm
2	Cu 324.754	3599.4	267.1	0.0011	mg/L	0.0011 ppm
2	Fe 273.955	432.7	73.8	0.0018	mg/L	0.0018 ppm
2	K 766.491	1402.9	-142.5	0.0654	mg/L	0.0654 ppm
2	Mg 279.079	3440.7	69.4	0.0017	mg/L	0.0017 ppm
2	Mn 257.610	1900.5	567.3	0.0004	mg/L	0.0004 ppm
2	Mo 202.030	-153.4	-0.7	0.0000	mg/L	0.0000 ppm
2	Na 330.237	4785.9	137.1	0.0463	mg/L	0.0463 ppm
2	Ni 231.604	-435.9	-25.6	-0.0006	mg/L	-0.0006 ppm
2	Pb 220.353	410.1	4.6	0.0003	mg/L	0.0003 ppm
2	Sb 206.833	87.4	7.2	0.0019	mg/L	0.0019 ppm
2	Se 196.026	104.0	-10.8	-0.0043	mg/L	-0.0043 ppm
2	Tl 190.800	366.2	-2.0	-0.0005	mg/L	-0.0005 ppm
2	V 292.402	-403.0	-21.3	-0.0002	mg/L	-0.0002 ppm
2	Zn 213.856	-372.8	64.5	0.0006	mg/L	0.0006 ppm
3	Ag 328.068	1764.5	-11.3	-0.0001	mg/L	-0.0001 ppm
3	Al 308.215	3517.0	-67.7	-0.0023	mg/L	-0.0023 ppm
3	As 188.979	131.3	1.4	0.0005	mg/L	0.0005 ppm
3	Ba 233.527	-1041.9	-19.0	0.0000	mg/L	0.0000 ppm
3	Be 313.107	351.5	94.7	0.0000	mg/L	0.0000 ppm
3	Ca 227.547	655.9	-1.0	-0.0050	mg/L	-0.0050 ppm
3	Cd 228.802	28.4	-5.0	0.0000	mg/L	0.0000 ppm
3	Co 228.616	-556.4	-2.1	0.0000	mg/L	0.0000 ppm
3	Cr 267.716	70.2	-5.0	-0.0001	mg/L	-0.0001 ppm
3	Cu 324.754	3490.0	157.8	0.0006	mg/L	0.0006 ppm
3	Fe 273.955	335.3	-23.7	-0.0006	mg/L	-0.0006 ppm
3	K 766.491	1544.3	-1.2	0.0741	mg/L	0.0741 ppm
3	Mg 279.079	3489.2	117.9	0.0029	mg/L	0.0029 ppm
3	Mn 257.610	1708.5	375.3	0.0003	mg/L	0.0003 ppm
3	Mo 202.030	-159.5	-6.9	-0.0004	mg/L	-0.0004 ppm
3	Na 330.237	4985.0	336.2	0.3454	mg/L	0.3454 ppm
3	Ni 231.604	-401.7	8.6	0.0002	mg/L	0.0002 ppm
3	Pb 220.353	407.8	2.3	0.0001	mg/L	0.0001 ppm
3	Sb 206.833	82.0	1.8	0.0005	mg/L	0.0005 ppm
3	Se 196.026	107.9	-6.9	-0.0027	mg/L	-0.0027 ppm
3	Tl 190.800	364.9	-3.2	-0.0009	mg/L	-0.0009 ppm
3	V 292.402	-470.8	-89.1	-0.0008	mg/L	-0.0008 ppm
3	Zn 213.856	-409.6	27.7	0.0003	mg/L	0.0003 ppm

lean Data ----------

D: M-BL 03M1479 Seq. No.: 12 Sample No.: 1 A/S Pos: 10
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:26:11 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	44.4	0.0003	0.00095	mg/L	0.0003	0.00095	ppm	370.43%
l 308.215	4.5	0.0002	0.00233	mg/L	0.0002	0.00233	ppm	>999.9%
s 188.979	6.8	0.0023	0.00226	mg/L	0.0023	0.00226	ppm	98.87%
a 233.527	7.6	0.0000	0.00024	mg/L	0.0000	0.00024	ppm	>999.9%
e 313.107	234.3	0.0001	0.00006	mg/L	0.0001	0.00006	ppm	58.16%
a 227.547	0.4	0.0019	0.05269	mg/L	0.0019	0.05269	ppm	>999.9%
d 228.802	-7.3	-0.0001	0.00008	mg/L	-0.0001	0.00008	ppm	119.58%
o 228.616	-5.0	-0.0001	0.00005	mg/L	-0.0001	0.00005	ppm	88.80%
r 267.716	8.1	0.0001	0.00013	mg/L	0.0001	0.00013	ppm	146.77%
u 324.754	170.3	0.0007	0.00037	mg/L	0.0007	0.00037	ppm	53.54%
e 273.955	75.9	0.0019	0.00251	mg/L	0.0019	0.00251	ppm	132.60%
766.491	85.3	0.0795	0.01739	mg/L	0.0795	0.01739	ppm	21.88%
g 279.079	144.2	0.0036	0.00225	mg/L	0.0036	0.00225	ppm	62.97%
n 257.610	524.7	0.0004	0.00010	mg/L	0.0004	0.00010	ppm	25.39%
o 202.030	-2.6	-0.0002	0.00023	mg/L	-0.0002	0.00023	ppm	141.96%
a 330.237	225.0	0.1783	0.15262	mg/L	0.1783	0.15262	ppm	85.60%
i 231.604	0.4	0.0000	0.00053	mg/L	0.0000	0.00053	ppm	>999.9%
b 220.353	5.1	0.0003	0.00019	mg/L	0.0003	0.00019	ppm	60.78%
b 206.833	2.4	0.0006	0.00117	mg/L	0.0006	0.00117	ppm	186.30%
e 196.026	-10.1	-0.0040	0.00117	mg/L	-0.0040	0.00117	ppm	29.27%
l 190.800	-0.3	-0.0001	0.00111	mg/L	-0.0001	0.00111	ppm	>999.9%
292.402	-55.6	-0.0005	0.00030	mg/L	-0.0005	0.00030	ppm	60.96%
n 213.856	64.9	0.0007	0.00038	mg/L	0.0007	0.00038	ppm	57.67%

eplicate Data ----------

D: LCS-03M1479 Date: 5/19/03 11:29:43 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Ag 328.068	184674.3	182898.5	1.056	mg/L	1.056	ppm
1	Al 308.215	71738.1	68153.4	2.299	mg/L	2.299	ppm
1	As 188.979	1554.8	1424.8	0.4855	mg/L	0.4855	ppm
1	Ba 233.527	1695123.8	1696146.6	4.458	mg/L	4.458	ppm
1	Be 313.107	452964.9	452708.1	0.1951	mg/L	0.1951	ppm
1	Ca 227.547	4827.1	4170.3	20.99	mg/L	20.99	ppm
1	Cd 228.802	30622.7	30589.3	0.2723	mg/L	0.2723	ppm
1	Co 228.616	99236.2	99790.4	1.096	mg/L	1.096	ppm
1	Cr 267.716	100028.0	99952.8	1.108	mg/L	1.108	ppm
1	Cu 324.754	268318.6	264986.3	1.062	mg/L	1.062	ppm
1	Fe 273.955	42797.8	42438.8	1.057	mg/L	1.057	ppm
1	K 766.491	88650.5	87105.0	5.263	mg/L	5.263	ppm
1	Mg 279.079	435688.4	432317.1	10.73	mg/L	10.73	ppm
1	Mn 257.610	1234086.6	1232753.4	0.9622	mg/L	0.9622	ppm
1	Mo 202.030	36809.6	36962.3	2.257	mg/L	2.257	ppm
1	Na 330.237	31331.4	26682.6	40.03	mg/L	40.03	ppm
1	Ni 231.604	46654.2	47064.5	1.073	mg/L	1.073	ppm
1	Pb 220.353	53694.2	53288.7	3.285	mg/L	3.285	ppm
1	Sb 206.833	2079.2	1999.0	0.4851	mg/L	0.4851	ppm
1	Se 196.026	1425.5	1310.7	0.5154	mg/L	0.5154	ppm
1	Tl 190.800	2175.3	1807.1	0.4963	mg/L	0.4963	ppm
1	V 292.402	238945.9	239327.6	2.134	mg/L	2.134	ppm
1	Zn 213.856	52607.0	53044.2	0.5318	mg/L	0.5318	ppm
2	Ag 328.068	182730.2	180954.4	1.044	mg/L	1.044	ppm
2	Al 308.215	70819.5	67234.8	2.268	mg/L	2.268	ppm
2	As 188.979	1575.6	1445.6	0.4923	mg/L	0.4923	ppm
2	Ba 233.527	1689743.1	1690766.0	4.444	mg/L	4.444	ppm
2	Be 313.107	452990.0	452733.2	0.1951	mg/L	0.1951	ppm
2	Ca 227.547	4895.3	4238.5	21.33	mg/L	21.33	ppm
2	Cd 228.802	30475.0	30441.6	0.2709	mg/L	0.2709	ppm
2	Co 228.616	98115.4	98669.6	1.083	mg/L	1.083	ppm
2	Cr 267.716	98364.7	98289.4	1.090	mg/L	1.090	ppm
2	Cu 324.754	265955.3	262623.1	1.053	mg/L	1.053	ppm
2	Fe 273.955	42555.3	42196.4	1.051	mg/L	1.051	ppm

2 K 766.491	87944.3	86398.8	5.222	mg/L	5.222 ppm
2 Mg 279.079	430141.5	426770.1	10.59	mg/L	10.59 ppm
2 Mn 257.610	1229024.1	1227690.9	0.9582	mg/L	0.9582 ppm
2 Mo 202.030	36573.7	36726.4	2.243	mg/L	2.243 ppm
2 Na 330.237	31099.7	26450.9	39.68	mg/L	39.68 ppm
2 Ni 231.604	46372.2	46782.5	1.067	mg/L	1.067 ppm
2 Pb 220.353	53186.0	52780.5	3.253	mg/L	3.253 ppm
2 Sb 206.833	2092.2	2012.1	0.4890	mg/L	0.4890 ppm
2 Se 196.026	1469.3	1354.5	0.5326	mg/L	0.5326 ppm
2 Tl 190.800	2275.5	1907.3	0.5238	mg/L	0.5238 ppm
2 V 292.402	235433.9	235815.6	2.103	mg/L	2.103 ppm
2 Zn 213.856	52221.3	52658.5	0.5279	mg/L	0.5279 ppm
3 Ag 328.068	177193.9	175418.1	1.012	mg/L	1.012 ppm
3 Al 308.215	68958.7	65374.0	2.205	mg/L	2.205 ppm
3 As 188.979	1601.6	1471.6	0.5008	mg/L	0.5008 ppm
3 Ba 233.527	1664347.7	1665370.6	4.377	mg/L	4.377 ppm
3 Be 313.107	444180.6	443923.8	0.1913	mg/L	0.1913 ppm
3 Ca 227.547	4919.7	4262.9	21.45	mg/L	21.45 ppm
3 Cd 228.802	29321.8	29288.3	0.2607	mg/L	0.2607 ppm
3 Co 228.616	95528.0	96082.3	1.055	mg/L	1.055 ppm
3 Cr 267.716	96021.6	95946.3	1.064	mg/L	1.064 ppm
3 Cu 324.754	259773.4	256441.1	1.028	mg/L	1.028 ppm
3 Fe 273.955	41121.3	40762.4	1.015	mg/L	1.015 ppm
3 K 766.491	86694.7	85149.2	5.150	mg/L	5.150 ppm
3 Mg 279.079	419581.9	416210.6	10.33	mg/L	10.33 ppm
3 Mn 257.610	1209304.1	1207970.9	0.9428	mg/L	0.9428 ppm
3 Mo 202.030	35764.8	35917.5	2.194	mg/L	2.194 ppm
3 Na 330.237	30572.7	25923.9	38.89	mg/L	38.89 ppm
3 Ni 231.604	44962.8	45373.1	1.035	mg/L	1.035 ppm
3 Pb 220.353	51454.6	51049.1	3.147	mg/L	3.147 ppm
3 Sb 206.833	2095.6	2015.4	0.4906	mg/L	0.4906 ppm
3 Se 196.026	1462.4	1347.6	0.5299	mg/L	0.5299 ppm
3 Tl 190.800	2278.1	1910.0	0.5246	mg/L	0.5246 ppm
3 V 292.402	229015.0	229396.7	2.045	mg/L	2.045 ppm
3 Zn 213.856	50676.9	51114.1	0.5124	mg/L	0.5124 ppm

ean Data ----------

D: LCS-03M1479 Seq. No.: 13 Sample No.: 2 A/S Pos: 11
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:29:43 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	179757.0	1.037	0.0224	mg/L	1.037	0.0224	ppm	2.16%
l 308.215	66920.7	2.257	0.0478	mg/L	2.257	0.0478	ppm	2.12%
s 188.979	1447.4	0.4928	0.00767	mg/L	0.4928	0.00767	ppm	1.56%
a 233.527	1684094.4	4.426	0.0432	mg/L	4.426	0.0432	ppm	0.98%
e 313.107	449788.4	0.1939	0.00219	mg/L	0.1939	0.00219	ppm	1.13%
a 227.547	4223.9	21.26	0.242	mg/L	21.26	0.242	ppm	1.14%
d 228.802	30106.4	0.2680	0.00634	mg/L	0.2680	0.00634	ppm	2.37%
o 228.616	98180.8	1.078	0.0209	mg/L	1.078	0.0209	ppm	1.94%
r 267.716	98062.8	1.087	0.0223	mg/L	1.087	0.0223	ppm	2.05%
u 324.754	261350.2	1.048	0.0177	mg/L	1.048	0.0177	ppm	1.69%
e 273.955	41799.2	1.041	0.0226	mg/L	1.041	0.0226	ppm	2.17%
766.491	86217.7	5.212	0.0569	mg/L	5.212	0.0569	ppm	1.09%
g 279.079	425099.3	10.55	0.203	mg/L	10.55	0.203	ppm	1.92%
n 257.610	1222805.1	0.9544	0.01022	mg/L	0.9544	0.01022	ppm	1.07%
o 202.030	36535.4	2.231	0.0335	mg/L	2.231	0.0335	ppm	1.50%
a 330.237	26352.4	39.53	0.587	mg/L	39.53	0.587	ppm	1.49%
i 231.604	46406.7	1.058	0.0207	mg/L	1.058	0.0207	ppm	1.95%
o 220.353	52372.8	3.228	0.0724	mg/L	3.228	0.0724	ppm	2.24%
o 206.833	2008.9	0.4882	0.00285	mg/L	0.4882	0.00285	ppm	0.58%
e 196.026	1337.6	0.5260	0.00926	mg/L	0.5260	0.00926	ppm	1.76%
l 190.800	1874.8	0.5149	0.01610	mg/L	0.5149	0.01610	ppm	3.13%
292.402	234846.6	2.094	0.0449	mg/L	2.094	0.0449	ppm	2.14%
n 213.856	52272.3	0.5240	0.01024	mg/L	0.5240	0.01024	ppm	1.95%

atrix Check Sample: LCS-03M1479

	Expected	Measured	Calib

lement	Conc.	Conc.	Std.Dev.	Units	% Recovery
g 328.068	1.000	1.037	0.022	mg/L	103.719
l 308.215	2.000	2.257	0.048	mg/L	112.866
s 188.979	0.5023	0.4928	0.008	mg/L	98.112
a 233.527	4.000	4.426	0.043	mg/L	110.649
e 313.107	0.2001	0.1939	0.002	mg/L	96.880
a 227.547	20.00	21.26	0.242	mg/L	106.270
d 228.802	0.2499	0.2680	0.006	mg/L	107.210
o 228.616	0.9999	1.078	0.021	mg/L	107.791
r 267.716	1.000	1.087	0.022	mg/L	108.706
u 324.754	1.001	1.048	0.018	mg/L	104.710
e 273.955	1.002	1.041	0.023	mg/L	103.942
766.491	5.079	5.212	0.057	mg/L	102.646
g 279.079	10.00	10.55	0.203	mg/L	105.462
n 257.610	1.000	0.9544	0.010	mg/L	95.401
o 202.030	2.000	2.231	0.033	mg/L	111.574
a 330.237	40.18	39.53	0.587	mg/L	98.385
i 231.604	1.000	1.058	0.021	mg/L	105.820
b 220.353	3.000	3.228	0.072	mg/L	107.600
b 206.833	0.5006	0.4882	0.003	mg/L	97.523
e 196.026	0.4960	0.5260	0.009	mg/L	105.993
l 190.800	0.4999	0.5149	0.016	mg/L	103.000
292.402	2.000	2.094	0.045	mg/L	104.719
n 213.856	0.5007	0.5240	0.010	mg/L	104.674

eplicate Data ----------

D: LCSD-03M1479 Date: 5/19/03 11:33:19 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Ag 328.068	176121.6	174345.8	1.006	mg/L	1.006	ppm
1	Al 308.215	68058.0	64473.4	2.175	mg/L	2.175	ppm
1	As 188.979	1592.3	1462.3	0.4976	mg/L	0.4976	ppm
1	Ba 233.527	1687266.3	1688289.2	4.437	mg/L	4.437	ppm
1	Be 313.107	451788.8	451532.1	0.1946	mg/L	0.1946	ppm
1	Ca 227.547	4889.8	4233.0	21.30	mg/L	21.30	ppm
1	Cd 228.802	29257.0	29223.5	0.2601	mg/L	0.2601	ppm
1	Co 228.616	94881.9	95436.2	1.048	mg/L	1.048	ppm
1	Cr 267.716	95443.0	95367.8	1.057	mg/L	1.057	ppm
1	Cu 324.754	258207.7	254875.5	1.022	mg/L	1.022	ppm
1	Fe 273.955	40918.1	40559.2	1.010	mg/L	1.010	ppm
1	K 766.491	86711.2	85165.7	5.151	mg/L	5.151	ppm
1	Mg 279.079	413465.2	410093.9	10.18	mg/L	10.18	ppm
1	Mn 257.610	1224150.4	1222817.2	0.9544	mg/L	0.9544	ppm
1	Mo 202.030	35131.2	35283.9	2.155	mg/L	2.155	ppm
1	Na 330.237	30412.4	25763.5	38.64	mg/L	38.64	ppm
1	Ni 231.604	44919.3	45329.6	1.034	mg/L	1.034	ppm
1	Pb 220.353	51188.0	50782.5	3.130	mg/L	3.130	ppm
1	Sb 206.833	2108.8	2028.7	0.4943	mg/L	0.4943	ppm
1	Se 196.026	1456.2	1341.4	0.5275	mg/L	0.5275	ppm
1	Tl 190.800	2253.1	1885.0	0.5177	mg/L	0.5177	ppm
1	V 292.402	227791.3	228173.0	2.034	mg/L	2.034	ppm
1	Zn 213.856	50409.7	50847.0	0.5097	mg/L	0.5097	ppm
2	Ag 328.068	183340.8	181565.0	1.048	mg/L	1.048	ppm
2	Al 308.215	71492.9	67908.2	2.291	mg/L	2.291	ppm
2	As 188.979	1582.2	1452.2	0.4946	mg/L	0.4946	ppm
2	Ba 233.527	1757074.4	1758097.3	4.620	mg/L	4.620	ppm
2	Be 313.107	470486.6	470229.8	0.2027	mg/L	0.2027	ppm
2	Ca 227.547	4891.4	4234.5	21.31	mg/L	21.31	ppm
2	Cd 228.802	30589.8	30556.3	0.2720	mg/L	0.2720	ppm
2	Co 228.616	98693.2	99247.4	1.090	mg/L	1.090	ppm
2	Cr 267.716	99181.1	99105.9	1.099	mg/L	1.099	ppm
2	Cu 324.754	268144.0	264811.7	1.062	mg/L	1.062	ppm
2	Fe 273.955	42472.8	42113.9	1.049	mg/L	1.049	ppm
2	K 766.491	91977.7	90432.2	5.454	mg/L	5.454	ppm
2	Mg 279.079	431491.3	428120.0	10.62	mg/L	10.62	ppm
2	Mn 257.610	1272652.9	1271319.7	0.9923	mg/L	0.9923	ppm
2	Mo 202.030	36616.1	36768.7	2.246	mg/L	2.246	ppm
2	Na 330.237	31342.1	26693.3	40.05	mg/L	40.05	ppm
2	Ni 231.604	46508.8	46919.1	1.070	mg/L	1.070	ppm

2	Pb 220.353	53507.3	53101.8	3.273	mg/L	3.273 ppm
2	Sb 206.833	2085.0	2004.8	0.4869	mg/L	0.4869 ppm
2	Se 196.026	1445.8	1331.0	0.5234	mg/L	0.5234 ppm
2	Tl 190.800	2248.1	1879.9	0.5163	mg/L	0.5163 ppm
2	V 292.402	238003.4	238385.1	2.125	mg/L	2.125 ppm
2	Zn 213.856	52705.9	53143.1	0.5327	mg/L	0.5327 ppm
3	Ag 328.068	176312.0	174536.2	1.007	mg/L	1.007 ppm
3	Al 308.215	68752.0	65167.3	2.198	mg/L	2.198 ppm
3	As 188.979	1575.7	1445.8	0.4921	mg/L	0.4921 ppm
3	Ba 233.527	1691857.3	1692880.2	4.449	mg/L	4.449 ppm
3	Be 313.107	452999.1	452742.3	0.1951	mg/L	0.1951 ppm
3	Ca 227.547	4878.0	4221.1	21.24	mg/L	21.24 ppm
3	Cd 228.802	29142.8	29109.3	0.2591	mg/L	0.2591 ppm
3	Co 228.616	95233.6	95787.8	1.052	mg/L	1.052 ppm
3	Cr 267.716	95495.8	95420.6	1.058	mg/L	1.058 ppm
3	Cu 324.754	258642.1	255309.9	1.024	mg/L	1.024 ppm
3	Fe 273.955	40919.2	40560.2	1.010	mg/L	1.010 ppm
3	K 766.491	88080.2	86534.7	5.230	mg/L	5.230 ppm
3	Mg 279.079	415028.7	411657.4	10.22	mg/L	10.22 ppm
3	Mn 257.610	1226278.7	1224945.5	0.9561	mg/L	0.9561 ppm
3	Mo 202.030	35559.4	35712.1	2.181	mg/L	2.181 ppm
3	Na 330.237	30335.5	25686.7	38.53	mg/L	38.53 ppm
3	Ni 231.604	44867.8	45278.1	1.032	mg/L	1.032 ppm
3	Pb 220.353	51436.5	51031.0	3.146	mg/L	3.146 ppm
3	Sb 206.833	2093.2	2013.1	0.4902	mg/L	0.4902 ppm
3	Se 196.026	1478.5	1363.7	0.5362	mg/L	0.5362 ppm
3	Tl 190.800	2249.5	1881.4	0.5167	mg/L	0.5167 ppm
3	V 292.402	228894.7	229276.4	2.044	mg/L	2.044 ppm
3	Zn 213.856	50680.0	51117.2	0.5124	mg/L	0.5124 ppm

ean Data ----------

D: LCSD-03M1479 Seq. No.: 14 Sample No.: 3 A/S Pos: 12
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:33:19 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	176815.7	1.020	0.0237	mg/L	1.020	0.0237	ppm	2.33%
l 308.215	65849.6	2.221	0.0613	mg/L	2.221	0.0613	ppm	2.76%
s 188.979	1453.4	0.4948	0.00278	mg/L	0.4948	0.00278	ppm	0.56%
a 233.527	1713088.9	4.502	0.1026	mg/L	4.502	0.1026	ppm	2.28%
e 313.107	458168.1	0.1975	0.00451	mg/L	0.1975	0.00451	ppm	2.28%
a 227.547	4229.6	21.28	0.037	mg/L	21.28	0.037	ppm	0.17%
d 228.802	29629.7	0.2637	0.00716	mg/L	0.2637	0.00716	ppm	2.72%
o 228.616	96823.8	1.063	0.0231	mg/L	1.063	0.0231	ppm	2.18%
r 267.716	96631.4	1.071	0.0238	mg/L	1.071	0.0238	ppm	2.22%
u 324.754	258332.3	1.036	0.0225	mg/L	1.036	0.0225	ppm	2.17%
e 273.955	41077.8	1.023	0.0224	mg/L	1.023	0.0224	ppm	2.18%
766.491	87377.5	5.278	0.1569	mg/L	5.278	0.1569	ppm	2.97%
g 279.079	416623.8	10.34	0.248	mg/L	10.34	0.248	ppm	2.40%
n 257.610	1239694.2	0.9676	0.02139	mg/L	0.9676	0.02139	ppm	2.21%
o 202.030	35921.6	2.194	0.0467	mg/L	2.194	0.0467	ppm	2.13%
a 330.237	26047.8	39.07	0.846	mg/L	39.07	0.846	ppm	2.17%
. 231.604	45842.3	1.045	0.0213	mg/L	1.045	0.0213	ppm	2.04%
o 220.353	51638.4	3.183	0.0785	mg/L	3.183	0.0785	ppm	2.47%
o 206.833	2015.5	0.4904	0.00370	mg/L	0.4904	0.00370	ppm	0.75%
e 196.026	1345.4	0.5290	0.00656	mg/L	0.5290	0.00656	ppm	1.24%
. 190.800	1882.1	0.5169	0.00071	mg/L	0.5169	0.00071	ppm	0.14%
292.402	231944.9	2.068	0.0500	mg/L	2.068	0.0500	ppm	2.42%
n 213.856	51702.4	0.5183	0.01258	mg/L	0.5183	0.01258	ppm	2.43%

atrix Check Sample: LCSD-03M1479

ement	Expected Conc.	Measured Conc.	Std.Dev.	Calib Units	% Recovery
r 328.068	1.000	1.020	0.024	mg/L	102.021
. 308.215	2.000	2.221	0.061	mg/L	111.059
s 188.979	0.5023	0.4948	0.003	mg/L	98.493
. 233.527	4.000	4.502	0.103	mg/L	112.555
e 313.107	0.2001	0.1975	0.005	mg/L	98.686

a 227.547	20.00	21.28	0.037	mg/L	106.412
d 228.802	0.2499	0.2637	0.007	mg/L	105.513
o 228.616	0.9999	1.063	0.023	mg/L	106.301
r 267.716	1.000	1.071	0.024	mg/L	107.119
u 324.754	1.001	1.036	0.023	mg/L	103.500
e 273.955	1.002	1.023	0.022	mg/L	102.145
766.491	5.079	5.278	0.157	mg/L	103.977
g 279.079	10.00	10.34	0.248	mg/L	103.358
n 257.610	1.000	0.9676	0.021	mg/L	96.719
o 202.030	2.000	2.194	0.047	mg/L	109.700
a 330.237	40.18	39.07	0.846	mg/L	97.235
i 231.604	1.000	1.045	0.021	mg/L	104.533
b 220.353	3.000	3.183	0.078	mg/L	106.091
b 206.833	0.5006	0.4904	0.004	mg/L	97.961
e 196.026	0.4960	0.5290	0.007	mg/L	106.603
l 190.800	0.4999	0.5169	0.001	mg/L	103.400
292.402	2.000	2.068	0.050	mg/L	103.425
n 213.856	0.5007	0.5183	0.013	mg/L	103.531

eplicate Data ----------
D: 3261-1 S F=1 Date: 5/19/03 11:36:50 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	1830.6	54.8	0.0003	mg/L	0.0003	ppm
1	Al 308.215	4320.7	736.0	0.0248	mg/L	0.0248	ppm
1	As 188.979	132.0	2.1	0.0021	mg/L	0.0021	ppm
1	Ba 233.527	15680.8	16703.6	0.0439	mg/L	0.0439	ppm
1	Be 313.107	473.2	216.5	0.0001	mg/L	0.0001	ppm
1	Ca 227.547	9354.8	8698.0	43.77	mg/L	43.77	ppm
1	Cd 228.802	16.0	-17.4	-0.0002	mg/L	-0.0002	ppm
1	Co 228.616	-459.3	95.0	0.0010	mg/L	0.0010	ppm
1	Cr 267.716	1039.7	964.4	0.0107	mg/L	0.0107	ppm
1	Cu 324.754	10674.2	7341.9	0.0294	mg/L	0.0294	ppm
1	Fe 273.955	2829.8	2470.9	0.0616	mg/L	0.0616	ppm
1	K 766.491	485887.5	484342.1	25.33	mg/L	25.33	ppm
1	Mg 279.079	2155776.1	2152404.8	53.42	mg/L	53.42	ppm
1	Mn 257.610	22860.9	21527.7	0.0168	mg/L	0.0168	ppm
1	Mo 202.030	-16.4	136.3	0.0083	mg/L	0.0083	ppm
1	Na 330.237	817003.0	812354.2	1331	mg/L	1331	ppm
1	Ni 231.604	-247.2	163.1	0.0037	mg/L	0.0037	ppm
1	Pb 220.353	461.6	56.1	0.0035	mg/L	0.0035	ppm
1	Sb 206.833	87.2	7.1	0.0018	mg/L	0.0018	ppm
1	Se 196.026	133.0	18.2	0.0072	mg/L	0.0072	ppm
1	Tl 190.800	383.7	15.5	0.0030	mg/L	0.0030	ppm
1	V 292.402	7194.9	7576.6	0.0676	mg/L	0.0676	ppm
1	Zn 213.856	2617.0	3054.2	0.0306	mg/L	0.0306	ppm
2	Ag 328.068	1829.9	54.1	0.0003	mg/L	0.0003	ppm
2	Al 308.215	4606.0	1021.3	0.0345	mg/L	0.0345	ppm
2	As 188.979	138.1	8.1	0.0041	mg/L	0.0041	ppm
2	Ba 233.527	15550.1	16573.0	0.0436	mg/L	0.0436	ppm
2	Be 313.107	429.4	172.7	0.0001	mg/L	0.0001	ppm
2	Ca 227.547	9387.0	8730.1	43.93	mg/L	43.93	ppm
2	Cd 228.802	0.6	-32.9	-0.0003	mg/L	-0.0003	ppm
2	Co 228.616	-509.1	45.2	0.0005	mg/L	0.0005	ppm
2	Cr 267.716	1135.9	1060.6	0.0118	mg/L	0.0118	ppm
2	Cu 324.754	10685.1	7352.9	0.0295	mg/L	0.0295	ppm
2	Fe 273.955	2692.0	2333.1	0.0581	mg/L	0.0581	ppm
2	K 766.491	463617.2	462071.7	24.32	mg/L	24.32	ppm
2	Mg 279.079	2184918.0	2181546.6	54.14	mg/L	54.14	ppm
2	Mn 257.610	23860.7	22527.5	0.0176	mg/L	0.0176	ppm
2	Mo 202.030	-41.7	110.9	0.0068	mg/L	0.0068	ppm
2	Na 330.237	822561.0	817912.2	1341	mg/L	1341	ppm
2	Ni 231.604	-253.6	156.7	0.0036	mg/L	0.0036	ppm
2	Pb 220.353	440.6	35.1	0.0022	mg/L	0.0022	ppm
2	Sb 206.833	91.4	11.2	0.0029	mg/L	0.0029	ppm
2	Se 196.026	125.5	10.7	0.0042	mg/L	0.0042	ppm
2	Tl 190.800	376.6	8.5	0.0011	mg/L	0.0011	ppm
2	V 292.402	7333.0	7714.7	0.0688	mg/L	0.0688	ppm
2	Zn 213.856	2612.8	3050.0	0.0306	mg/L	0.0306	ppm

3	Ag 328.068	1753.1	-22.7	-0.0001	mg/L	-0.0001 ppm
3	Al 308.215	4751.2	1166.5	0.0393	mg/L	0.0393 ppm
3	As 188.979	153.4	23.4	0.0092	mg/L	0.0092 ppm
3	Ba 233.527	15407.4	16430.3	0.0432	mg/L	0.0432 ppm
3	Be 313.107	319.1	62.3	0.0000	mg/L	0.0000 ppm
3	Ca 227.547	9395.9	8739.1	43.98	mg/L	43.98 ppm
3	Cd 228.802	24.5	-9.0	-0.0001	mg/L	-0.0001 ppm
3	Co 228.616	-476.5	77.7	0.0009	mg/L	0.0009 ppm
3	Cr 267.716	1049.2	974.0	0.0108	mg/L	0.0108 ppm
3	Cu 324.754	10397.6	7065.4	0.0283	mg/L	0.0283 ppm
3	Fe 273.955	2697.3	2338.4	0.0583	mg/L	0.0583 ppm
3	K 766.491	448272.5	446727.1	23.62	mg/L	23.62 ppm
3	Mg 279.079	2196296.2	2192924.9	54.42	mg/L	54.42 ppm
3	Mn 257.610	23858.0	22524.8	0.0176	mg/L	0.0176 ppm
3	Mo 202.030	-45.6	107.1	0.0065	mg/L	0.0065 ppm
3	Na 330.237	824779.9	820131.1	1345	mg/L	1345 ppm
3	Ni 231.604	-267.4	142.9	0.0033	mg/L	0.0033 ppm
3	Pb 220.353	453.5	48.0	0.0030	mg/L	0.0030 ppm
3	Sb 206.833	86.0	5.9	0.0015	mg/L	0.0015 ppm
3	Se 196.026	121.1	6.3	0.0025	mg/L	0.0025 ppm
3	Tl 190.800	378.4	10.2	0.0016	mg/L	0.0016 ppm
3	V 292.402	7304.1	7685.8	0.0685	mg/L	0.0685 ppm
3	Zn 213.856	2606.5	3043.8	0.0305	mg/L	0.0305 ppm

ean Data ----------

D: 3261-1 S F=1 Seq. No.: 15 Sample No.: 4 A/S Pos: 13
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:36:50 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	28.7	0.0002	0.00026	mg/L	0.0002	0.00026	ppm	155.00%
l 308.215	974.6	0.0329	0.00739	mg/L	0.0329	0.00739	ppm	22.47%
s 188.979	11.2	0.0051	0.00368	mg/L	0.0051	0.00368	ppm	71.83%
a 233.527	16569.0	0.0435	0.00036	mg/L	0.0435	0.00036	ppm	0.83%
e 313.107	150.5	0.0001	0.00003	mg/L	0.0001	0.00003	ppm	52.80%
a 227.547	8722.4	43.89	0.109	mg/L	43.89	0.109	ppm	0.25%
d 228.802	-19.8	-0.0002	0.00011	mg/L	-0.0002	0.00011	ppm	61.41%
o 228.616	72.6	0.0008	0.00028	mg/L	0.0008	0.00028	ppm	34.82%
r 267.716	999.7	0.0111	0.00059	mg/L	0.0111	0.00059	ppm	5.30%
u 324.754	7253.4	0.0291	0.00065	mg/L	0.0291	0.00065	ppm	2.25%
e 273.955	2380.8	0.0593	0.00194	mg/L	0.0593	0.00194	ppm	3.28%
766.491	464380.3	24.42	0.860	mg/L	24.42	0.860	ppm	3.52%
g 279.079	2175625.4	53.99	0.519	mg/L	53.99	0.519	ppm	0.96%
n 257.610	22193.3	0.0173	0.00045	mg/L	0.0173	0.00045	ppm	2.60%
o 202.030	118.1	0.0072	0.00097	mg/L	0.0072	0.00097	ppm	13.43%
a 330.237	816799.2	1339	7.2	mg/L	1339	7.2	ppm	0.54%
. 231.604	154.2	0.0035	0.00024	mg/L	0.0035	0.00024	ppm	6.70%
b 220.353	46.4	0.0029	0.00065	mg/L	0.0029	0.00065	ppm	22.81%
b 206.833	8.1	0.0021	0.00073	mg/L	0.0021	0.00073	ppm	34.98%
e 196.026	11.7	0.0046	0.00237	mg/L	0.0046	0.00237	ppm	51.49%
. 190.800	11.4	0.0019	0.00102	mg/L	0.0019	0.00102	ppm	53.42%
292.402	7659.0	0.0683	0.00065	mg/L	0.0683	0.00065	ppm	0.95%
n 213.856	3049.3	0.0306	0.00005	mg/L	0.0306	0.00005	ppm	0.17%

plicate Data ----------

: 3261-1 D F=1 Date: 5/19/03 11:40:26 AM

pl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Ag 328.068	1661.4	-114.4	-0.0007	mg/L	-0.0007	ppm
1	Al 308.215	4263.7	679.0	0.0229	mg/L	0.0229	ppm
1	As 188.979	137.3	7.4	0.0038	mg/L	0.0038	ppm
1	Ba 233.527	14166.0	15188.9	0.0399	mg/L	0.0399	ppm
1	Be 313.107	358.5	101.7	0.0000	mg/L	0.0000	ppm
1	Ca 227.547	8927.5	8270.7	41.62	mg/L	41.62	ppm
1	Cd 228.802	33.5	0.0	0.0000	mg/L	0.0000	ppm
1	Co 228.616	-521.2	33.1	0.0004	mg/L	0.0004	ppm
1	Cr 267.716	950.9	875.6	0.0097	mg/L	0.0097	ppm
1	Cu 324.754	4014.9	682.6	0.0027	mg/L	0.0027	ppm

1	Fe 273.955	1603.1	1244.2	0.0310 mg/L	0.0310 ppm
1	K 766.491	478999.3	477453.8	25.02 mg/L	25.02 ppm
1	Mg 279.079	2109369.7	2105998.4	52.26 mg/L	52.26 ppm
1	Mn 257.610	21135.8	19802.6	0.0155 mg/L	0.0155 ppm
1	Mo 202.030	-66.8	85.9	0.0052 mg/L	0.0052 ppm
1	Na 330.237	790356.7	785707.9	1283 mg/L	1283 ppm
1	Ni 231.604	-336.1	74.2	0.0017 mg/L	0.0017 ppm
1	Pb 220.353	424.6	19.0	0.0012 mg/L	0.0012 ppm
1	Sb 206.833	86.8	6.7	0.0017 mg/L	0.0017 ppm
1	Se 196.026	120.6	5.8	0.0023 mg/L	0.0023 ppm
1	Tl 190.800	371.7	3.5	-0.0002 mg/L	-0.0002 ppm
1	V 292.402	7072.2	7453.9	0.0665 mg/L	0.0665 ppm
1	Zn 213.856	127.9	565.2	0.0057 mg/L	0.0057 ppm
2	Ag 328.068	1571.5	-204.3	-0.0012 mg/L	-0.0012 ppm
2	Al 308.215	4379.0	794.4	0.0268 mg/L	0.0268 ppm
2	As 188.979	147.6	17.7	0.0072 mg/L	0.0072 ppm
2	Ba 233.527	13863.5	14886.4	0.0391 mg/L	0.0391 ppm
2	Be 313.107	216.6	-40.2	0.0000 mg/L	0.0000 ppm
2	Ca 227.547	8945.2	8288.4	41.71 mg/L	41.71 ppm
2	Cd 228.802	16.6	-16.9	-0.0002 mg/L	-0.0002 ppm
2	Co 228.616	-541.1	13.1	0.0001 mg/L	0.0001 ppm
2	Cr 267.716	944.5	869.2	0.0096 mg/L	0.0096 ppm
2	Cu 324.754	3901.0	568.8	0.0023 mg/L	0.0023 ppm
2	Fe 273.955	1309.5	950.6	0.0237 mg/L	0.0237 ppm
2	K 766.491	442015.4	440469.9	23.33 mg/L	23.33 ppm
2	Mg 279.079	2058295.4	2054924.1	51.00 mg/L	51.00 ppm
2	Mn 257.610	20784.5	19451.3	0.0152 mg/L	0.0152 ppm
2	Mo 202.030	-74.5	78.2	0.0048 mg/L	0.0048 ppm
2	Na 330.237	769787.0	765138.2	1246 mg/L	1246 ppm
2	Ni 231.604	-318.4	91.9	0.0021 mg/L	0.0021 ppm
2	Pb 220.353	451.2	45.7	0.0028 mg/L	0.0028 ppm
2	Sb 206.833	78.9	-1.3	-0.0003 mg/L	-0.0003 ppm
2	Se 196.026	135.1	20.3	0.0080 mg/L	0.0080 ppm
2	Tl 190.800	362.2	-6.0	-0.0028 mg/L	-0.0028 ppm
2	V 292.402	6923.4	7305.1	0.0651 mg/L	0.0651 ppm
2	Zn 213.856	131.4	568.6	0.0057 mg/L	0.0057 ppm
3	Ag 328.068	1890.7	114.9	0.0007 mg/L	0.0007 ppm
3	Al 308.215	4337.1	752.4	0.0254 mg/L	0.0254 ppm
3	As 188.979	143.9	14.0	0.0060 mg/L	0.0060 ppm
3	Ba 233.527	14107.4	15130.3	0.0398 mg/L	0.0398 ppm
3	Be 313.107	158.1	-98.7	0.0000 mg/L	0.0000 ppm
3	Ca 227.547	8954.2	8297.4	41.75 mg/L	41.75 ppm
3	Cd 228.802	19.8	-13.7	-0.0001 mg/L	-0.0001 ppm
3	Co 228.616	-566.6	-12.4	-0.0001 mg/L	-0.0001 ppm
3	Cr 267.716	917.5	842.3	0.0093 mg/L	0.0093 ppm
3	Cu 324.754	3742.2	409.9	0.0016 mg/L	0.0016 ppm
3	Fe 273.955	1222.5	863.6	0.0215 mg/L	0.0215 ppm
3	K 766.491	436304.5	434759.1	23.06 mg/L	23.06 ppm
3	Mg 279.079	2124329.2	2120957.9	52.64 mg/L	52.64 ppm
3	Mn 257.610	21479.4	20146.2	0.0157 mg/L	0.0157 ppm
3	Mo 202.030	-66.1	86.6	0.0053 mg/L	0.0053 ppm
3	Na 330.237	792473.8	787825.0	1287 mg/L	1287 ppm
3	Ni 231.604	-337.9	72.4	0.0017 mg/L	0.0017 ppm
3	Pb 220.353	434.7	29.1	0.0018 mg/L	0.0018 ppm
3	Sb 206.833	78.4	-1.7	-0.0004 mg/L	-0.0004 ppm
3	Se 196.026	117.4	2.6	0.0010 mg/L	0.0010 ppm
3	Tl 190.800	373.8	5.6	0.0004 mg/L	0.0004 ppm
3	V 292.402	7121.4	7503.1	0.0669 mg/L	0.0669 ppm
3	Zn 213.856	110.7	547.9	0.0055 mg/L	0.0055 ppm

an Data ----------

): 3261-1 D F=1 Seq. No.: 16 Sample No.: 5 A/S Pos: 14
mple Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:40:26 AM

.ement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
328.068	-67.9	-0.0004	0.00095	mg/L	-0.0004	0.00095	ppm	242.29%
308.215	741.9	0.0250	0.00197	mg/L	0.0250	0.00197	ppm	7.87%
188.979	13.0	0.0057	0.00175	mg/L	0.0057	0.00175	ppm	30.94%

a 233.527	15068.5	0.0396	0.00042 mg/L	0.0396	0.00042 ppm	1.06%
e 313.107	-12.4	0.0000	0.00004 mg/L	0.0000	0.00004 ppm	833.30%
a 227.547	8285.5	41.69	0.068 mg/L	41.69	0.068 ppm	0.16%
d 228.802	-10.2	-0.0001	0.00008 mg/L	-0.0001	0.00008 ppm	88.12%
o 228.616	11.3	0.0001	0.00025 mg/L	0.0001	0.00025 ppm	202.08%
r 267.716	862.4	0.0096	0.00020 mg/L	0.0096	0.00020 ppm	2.05%
u 324.754	553.8	0.0022	0.00055 mg/L	0.0022	0.00055 ppm	24.73%
e 273.955	1019.4	0.0254	0.00497 mg/L	0.0254	0.00497 ppm	19.56%
766.491	450894.3	23.80	1.059 mg/L	23.80	1.059 ppm	4.45%
g 279.079	2093960.1	51.97	0.859 mg/L	51.97	0.859 ppm	1.65%
n 257.610	19800.0	0.0155	0.00027 mg/L	0.0155	0.00027 ppm	1.75%
o 202.030	83.5	0.0051	0.00029 mg/L	0.0051	0.00029 ppm	5.59%
a 330.237	779557.0	1272	22.4 mg/L	1272	22.4 ppm	1.76%
i 231.604	79.5	0.0018	0.00025 mg/L	0.0018	0.00025 ppm	13.58%
b 220.353	31.3	0.0019	0.00083 mg/L	0.0019	0.00083 ppm	43.03%
b 206.833	1.2	0.0003	0.00122 mg/L	0.0003	0.00122 ppm	383.94%
e 196.026	9.5	0.0038	0.00371 mg/L	0.0038	0.00371 ppm	98.88%
l 190.800	1.1	-0.0009	0.00168 mg/L	-0.0009	0.00168 ppm	187.61%
292.402	7420.7	0.0662	0.00092 mg/L	0.0662	0.00092 ppm	1.39%
n 213.856	560.6	0.0056	0.00011 mg/L	0.0056	0.00011 ppm	1.98%

atrix Check Sample: 3261-1 D F=1

lement	Expected Conc.	Measured Conc.	Std.Dev.	Calib Units	Relative % Diff.
g 328.068	0.0002	-0.0004	0.001	mg/L	-493.345
l 308.215	0.0329	0.0250	0.002	mg/L	27.110
s 188.979	0.0051	0.0057	0.002	mg/L	9.947
a 233.527	0.0435	0.0396	0.000	mg/L	9.485
e 313.107	0.0001	0.0000	0.000	mg/L	235.822
a 227.547	43.89	41.69	0.068	mg/L	5.138
d 228.802	-0.0002	-0.0001	0.000	mg/L	-64.057
o 228.616	0.0008	0.0001	0.000	mg/L	146.249
r 267.716	0.0111	0.0096	0.000	mg/L	14.748
u 324.754	0.0291	0.0022	0.001	mg/L	171.627
e 273.955	0.0593	0.0254	0.005	mg/L	80.074
766.491	24.42	23.80	1.059	mg/L	2.560
g 279.079	53.99	51.97	0.859	mg/L	3.825
n 257.610	0.0173	0.0155	0.000	mg/L	11.399
o 202.030	0.0072	0.0051	0.000	mg/L	34.307
a 330.237	1339	1272	22.363	mg/L	5.119
i 231.604	0.0035	0.0018	0.000	mg/L	63.909
b 220.353	0.0029	0.0019	0.001	mg/L	38.933
b 206.833	0.0021	0.0003	0.001	mg/L	147.172
e 196.026	0.0046	0.0038	0.004	mg/L	20.490
l 190.800	0.0019	-0.0009	0.002	mg/L	554.327
292.402	0.0683	0.0662	0.001	mg/L	3.161
n 213.856	0.0306	0.0056	0.000	mg/L	137.885

eplicate Data ----------

): 3261-1 1/5 F=5 Date: 5/19/03 11:44:00 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Ag 328.068	1567.1	-208.7	-0.0012	mg/L	-0.0060	ppm
1	Al 308.215	3904.1	319.4	0.0108	mg/L	0.0539	ppm
1	As 188.979	144.8	14.9	0.0050	mg/L	0.0249	ppm
1	Ba 233.527	2180.8	3203.7	0.0084	mg/L	0.0421	ppm
1	Be 313.107	140.1	-116.6	-0.0001	mg/L	-0.0003	ppm
1	Ca 227.547	2523.0	1866.1	9.391	mg/L	46.95	ppm
1	Cd 228.802	12.9	-20.6	-0.0002	mg/L	-0.0009	ppm
1	Co 228.616	-572.1	-17.8	-0.0002	mg/L	-0.0010	ppm
1	Cr 267.716	286.7	211.5	0.0023	mg/L	0.0117	ppm
1	Cu 324.754	4277.2	945.0	0.0038	mg/L	0.0189	ppm
1	Fe 273.955	800.9	442.0	0.0110	mg/L	0.0551	ppm
1	K 766.491	67000.9	65455.4	4.008	mg/L	20.04	ppm
1	Mg 279.079	467603.0	464231.7	11.52	mg/L	57.60	ppm
1	Mn 257.610	5839.1	4505.9	0.0035	mg/L	0.0176	ppm
1	Mo 202.030	-140.0	12.7	0.0008	mg/L	0.0039	ppm
1	Na 330.237	160302.4	155653.6	237.2	mg/L	1186	ppm

1	Ni 231.604	-396.1	14.2	0.0003	mg/L	0.0016 ppm
1	Pb 220.353	414.2	8.6	0.0005	mg/L	0.0027 ppm
1	Sb 206.833	67.4	-12.7	-0.0033	mg/L	-0.0165 ppm
1	Se 196.026	116.6	1.8	0.0007	mg/L	0.0036 ppm
1	Tl 190.800	369.0	0.9	0.0002	mg/L	0.0012 ppm
1	V 292.402	1278.2	1659.9	0.0148	mg/L	0.0740 ppm
1	Zn 213.856	261.8	699.1	0.0070	mg/L	0.0350 ppm
2	Ag 328.068	2031.2	255.4	0.0015	mg/L	0.0074 ppm
2	Al 308.215	4052.8	468.1	0.0158	mg/L	0.0790 ppm
2	As 188.979	133.0	3.0	0.0010	mg/L	0.0051 ppm
2	Ba 233.527	2413.1	3436.0	0.0090	mg/L	0.0452 ppm
2	Be 313.107	156.0	-100.8	0.0000	mg/L	-0.0002 ppm
2	Ca 227.547	2524.2	1867.3	9.397	mg/L	46.98 ppm
2	Cd 228.802	3.0	-30.5	-0.0003	mg/L	-0.0014 ppm
2	Co 228.616	-563.8	-9.6	-0.0001	mg/L	-0.0005 ppm
2	Cr 267.716	296.3	221.1	0.0025	mg/L	0.0123 ppm
2	Cu 324.754	4428.1	1095.9	0.0044	mg/L	0.0220 ppm
2	Fe 273.955	676.7	317.8	0.0079	mg/L	0.0396 ppm
2	K 766.491	71271.1	69725.7	4.257	mg/L	21.29 ppm
2	Mg 279.079	481174.4	477803.1	11.86	mg/L	59.29 ppm
2	Mn 257.610	5881.9	4548.7	0.0036	mg/L	0.0178 ppm
2	Mo 202.030	-136.1	16.6	0.0010	mg/L	0.0051 ppm
2	Na 330.237	166182.6	161533.8	246.3	mg/L	1232 ppm
2	Ni 231.604	-397.3	13.0	0.0003	mg/L	0.0015 ppm
2	Pb 220.353	432.7	27.1	0.0017	mg/L	0.0084 ppm
2	Sb 206.833	80.0	-0.1	0.0000	mg/L	-0.0002 ppm
2	Se 196.026	119.5	4.7	0.0018	mg/L	0.0092 ppm
2	Tl 190.800	369.4	1.3	0.0003	mg/L	0.0017 ppm
2	V 292.402	1264.0	1645.7	0.0147	mg/L	0.0734 ppm
2	Zn 213.856	247.0	684.3	0.0069	mg/L	0.0343 ppm
3	Ag 328.068	1664.1	-111.7	-0.0006	mg/L	-0.0032 ppm
3	Al 308.215	4220.6	635.9	0.0215	mg/L	0.1073 ppm
3	As 188.979	134.0	4.1	0.0014	mg/L	0.0068 ppm
3	Ba 233.527	2338.7	3361.6	0.0088	mg/L	0.0442 ppm
3	Be 313.107	105.8	-151.0	-0.0001	mg/L	-0.0003 ppm
3	Ca 227.547	2538.8	1881.9	9.470	mg/L	47.35 ppm
3	Cd 228.802	-39.0	-72.5	-0.0006	mg/L	-0.0032 ppm
3	Co 228.616	-558.4	-4.1	0.0000	mg/L	-0.0002 ppm
3	Cr 267.716	306.5	231.3	0.0026	mg/L	0.0128 ppm
3	Cu 324.754	4265.2	932.9	0.0037	mg/L	0.0187 ppm
3	Fe 273.955	739.8	380.9	0.0095	mg/L	0.0474 ppm
3	K 766.491	73820.5	72275.0	4.406	mg/L	22.03 ppm
3	Mg 279.079	493362.6	489991.3	12.16	mg/L	60.80 ppm
3	Mn 257.610	6128.2	4795.0	0.0037	mg/L	0.0187 ppm
3	Mo 202.030	-143.8	8.9	0.0005	mg/L	0.0027 ppm
3	Na 330.237	170237.1	165588.3	252.6	mg/L	1263 ppm
3	Ni 231.604	-410.6	-0.3	0.0000	mg/L	0.0000 ppm
3	Pb 220.353	428.4	22.9	0.0014	mg/L	0.0070 ppm
3	Sb 206.833	84.2	4.1	0.0011	mg/L	0.0053 ppm
3	Se 196.026	128.8	14.0	0.0055	mg/L	0.0276 ppm
3	Tl 190.800	373.7	5.5	0.0015	mg/L	0.0076 ppm
3	V 292.402	1204.0	1585.7	0.0141	mg/L	0.0707 ppm
3	Zn 213.856	255.2	692.4	0.0069	mg/L	0.0347 ppm

ean Data ----------

D: 3261-1 1/5 F=5 Seq. No.: 17 Sample No.: 6 A/S Pos: 15

ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 5.0

Data: Original Date: 5/19/03 11:44:00 AM

---

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	-21.7	-0.0001	0.00141	mg/L	-0.0006	0.00706	ppm	>999.9%
l 308.215	474.5	0.0160	0.00534	mg/L	0.0800	0.02671	ppm	33.37%
s 188.979	7.3	0.0024	0.00219	mg/L	0.0122	0.01096	ppm	89.44%
a 233.527	3333.8	0.0088	0.00031	mg/L	0.0438	0.00156	ppm	3.56%
e 313.107	-122.8	-0.0001	0.00001	mg/L	-0.0003	0.00006	ppm	20.91%
a 227.547	1871.8	9.419	0.0443	mg/L	47.10	0.221	ppm	0.47%
d 228.802	-41.2	-0.0004	0.00025	mg/L	-0.0018	0.00123	ppm	66.90%
o 228.616	-10.5	-0.0001	0.00008	mg/L	-0.0006	0.00038	ppm	65.66%
r 267.716	221.3	0.0025	0.00011	mg/L	0.0123	0.00055	ppm	4.48%

u 324.754	991.3	0.0040	0.00036 mg/L	0.0199	0.00182 ppm	9.16%
e 273.955	380.2	0.0095	0.00155 mg/L	0.0474	0.00774 ppm	16.34%
766.491	69152.0	4.224	0.2009 mg/L	21.12	1.004 ppm	4.76%
g 279.079	477342.0	11.85	0.320 mg/L	59.23	1.599 ppm	2.70%
n 257.610	4616.5	0.0036	0.00012 mg/L	0.0180	0.00061 ppm	3.38%
o 202.030	12.7	0.0008	0.00024 mg/L	0.0039	0.00119 ppm	30.56%
a 330.237	160925.2	245.4	7.74 mg/L	1227	38.7 ppm	3.15%
i 231.604	9.0	0.0002	0.00018 mg/L	0.0010	0.00092 ppm	89.64%
b 220.353	19.5	0.0012	0.00060 mg/L	0.0060	0.00299 ppm	49.59%
b 206.833	-2.9	-0.0008	0.00226 mg/L	-0.0038	0.01131 ppm	298.96%
e 196.026	6.9	0.0027	0.00251 mg/L	0.0135	0.01254 ppm	93.00%
l 190.800	2.5	0.0007	0.00071 mg/L	0.0035	0.00354 ppm	101.48%
292.402	1630.4	0.0145	0.00035 mg/L	0.0727	0.00176 ppm	2.42%
n 213.856	691.9	0.0069	0.00007 mg/L	0.0347	0.00037 ppm	1.07%

eplicate Data ----------

D: 3261-1 MS F=1 Date: 5/19/03 11:47:42 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	176917.2	175141.4	1.011	mg/L	1.011	ppm
1	Al 308.215	64402.1	60817.5	2.052	mg/L	2.052	ppm
1	As 188.979	1522.9	1393.0	0.4761	mg/L	0.4761	ppm
1	Ba 233.527	1589453.5	1590476.4	4.180	mg/L	4.180	ppm
1	Be 313.107	425900.7	425644.0	0.1835	mg/L	0.1835	ppm
1	Ca 227.547	13718.9	13062.0	65.73	mg/L	65.73	ppm
1	Cd 228.802	29026.6	28993.1	0.2581	mg/L	0.2581	ppm
1	Co 228.616	93544.4	94098.6	1.033	mg/L	1.033	ppm
1	Cr 267.716	91653.7	91578.5	1.015	mg/L	1.015	ppm
1	Cu 324.754	269726.9	266394.7	1.068	mg/L	1.068	ppm
1	Fe 273.955	41318.5	40959.5	1.020	mg/L	1.020	ppm
1	K 766.491	626410.1	624864.6	31.46	mg/L	31.46	ppm
1	Mg 279.079	2500650.6	2497279.3	61.98	mg/L	61.98	ppm
1	Mn 257.610	1167644.8	1166311.6	0.9103	mg/L	0.9103	ppm
1	Mo 202.030	34718.3	34871.0	2.130	mg/L	2.130	ppm
1	Na 330.237	831037.3	826388.5	1356	mg/L	1356	ppm
1	Ni 231.604	43775.8	44186.1	1.008	mg/L	1.008	ppm
1	Pb 220.353	49723.9	49318.4	3.040	mg/L	3.040	ppm
1	Sb 206.833	1975.7	1895.6	0.4610	mg/L	0.4610	ppm
1	Se 196.026	1252.2	1137.4	0.4472	mg/L	0.4472	ppm
1	Tl 190.800	1960.4	1592.3	0.4359	mg/L	0.4359	ppm
1	V 292.402	231822.4	232204.1	2.070	mg/L	2.070	ppm
1	Zn 213.856	51658.2	52095.4	0.5222	mg/L	0.5222	ppm
2	Ag 328.068	165489.7	163713.9	0.9449	mg/L	0.9449	ppm
2	Al 308.215	60449.1	56864.4	1.918	mg/L	1.918	ppm
2	As 188.979	1522.8	1392.9	0.4755	mg/L	0.4755	ppm
2	Ba 233.527	1608617.5	1609640.4	4.230	mg/L	4.230	ppm
2	Be 313.107	432024.3	431767.5	0.1861	mg/L	0.1861	ppm
2	Ca 227.547	12890.3	12233.5	61.56	mg/L	61.56	ppm
2	Cd 228.802	27300.3	27266.9	0.2427	mg/L	0.2427	ppm
2	Co 228.616	88015.8	88570.1	0.9723	mg/L	0.9723	ppm
2	Cr 267.716	86307.0	86231.7	0.9560	mg/L	0.9560	ppm
2	Cu 324.754	252754.0	249421.8	1.0000	mg/L	1.0000	ppm
2	Fe 273.955	38502.9	38143.9	0.9503	mg/L	0.9503	ppm
2	K 766.491	610247.5	608702.1	30.77	mg/L	30.77	ppm
2	Mg 279.079	2537194.0	2533822.7	62.88	mg/L	62.88	ppm
2	Mn 257.610	1183703.4	1182370.2	0.9229	mg/L	0.9229	ppm
2	Mo 202.030	32581.7	32734.3	1.999	mg/L	1.999	ppm
2	Na 330.237	842449.0	837800.2	1377	mg/L	1377	ppm
2	Ni 231.604	41232.3	41642.6	0.9496	mg/L	0.9496	ppm
2	Pb 220.353	46693.9	46288.4	2.853	mg/L	2.853	ppm
2	Sb 206.833	1980.9	1900.8	0.4641	mg/L	0.4641	ppm
2	Se 196.026	1263.6	1148.8	0.4517	mg/L	0.4517	ppm
2	Tl 190.800	1945.0	1576.8	0.4317	mg/L	0.4317	ppm
2	V 292.402	218459.3	218841.0	1.951	mg/L	1.951	ppm
2	Zn 213.856	48185.5	48622.7	0.4874	mg/L	0.4874	ppm
3	Ag 328.068	176659.0	174883.2	1.009	mg/L	1.009	ppm
3	Al 308.215	64354.2	60769.5	2.050	mg/L	2.050	ppm
3	As 188.979	1531.6	1401.6	0.4791	mg/L	0.4791	ppm

3 Ba 233.527	1645017.3	1646040.2	4.326	mg/L	4.326 ppm
3 Be 313.107	441210.0	440953.3	0.1901	mg/L	0.1901 ppm
3 Ca 227.547	13740.9	13084.0	65.84	mg/L	65.84 ppm
3 Cd 228.802	28785.7	28752.3	0.2559	mg/L	0.2559 ppm
3 Co 228.616	93977.6	94531.8	1.038	mg/L	1.038 ppm
3 Cr 267.716	91908.9	91833.6	1.018	mg/L	1.018 ppm
3 Cu 324.754	269740.9	266408.7	1.068	mg/L	1.068 ppm
3 Fe 273.955	41098.8	40739.9	1.015	mg/L	1.015 ppm
3 K 766.491	633653.7	632108.2	31.76	mg/L	31.76 ppm
3 Mg 279.079	2596027.8	2592656.5	64.34	mg/L	64.34 ppm
3 Mn 257.610	1209201.5	1207868.3	0.9428	mg/L	0.9428 ppm
3 Mo 202.030	34883.5	35036.2	2.140	mg/L	2.140 ppm
3 Na 330.237	860334.5	855685.7	1409	mg/L	1409 ppm
3 Ni 231.604	43947.8	44358.1	1.011	mg/L	1.011 ppm
3 Pb 220.353	49720.7	49315.2	3.040	mg/L	3.040 ppm
3 Sb 206.833	2000.9	1920.7	0.4674	mg/L	0.4674 ppm
3 Se 196.026	1278.0	1163.2	0.4574	mg/L	0.4574 ppm
3 Tl 190.800	1984.6	1616.5	0.4425	mg/L	0.4425 ppm
3 V 292.402	232786.3	233168.0	2.079	mg/L	2.079 ppm
3 Zn 213.856	51608.6	52045.8	0.5217	mg/L	0.5217 ppm

ean Data ----------

D: 3261-1 MS F=1 Seq. No.: 18 Sample No.: 7 A/S Pos: 16
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:47:42 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	171246.2	0.9883	0.03765	mg/L	0.9883	0.03765	ppm	3.81%
l 308.215	59483.8	2.007	0.0765	mg/L	2.007	0.0765	ppm	3.81%
s 188.979	1395.8	0.4769	0.00190	mg/L	0.4769	0.00190	ppm	0.40%
a 233.527	1615385.7	4.245	0.0742	mg/L	4.245	0.0742	ppm	1.75%
e 313.107	432788.2	0.1865	0.00332	mg/L	0.1865	0.00332	ppm	1.78%
a 227.547	12793.2	64.38	2.440	mg/L	64.38	2.440	ppm	3.79%
d 228.802	28337.4	0.2522	0.00832	mg/L	0.2522	0.00832	ppm	3.30%
o 228.616	92400.2	1.014	0.0365	mg/L	1.014	0.0365	ppm	3.60%
r 267.716	89881.3	0.9964	0.03507	mg/L	0.9964	0.03507	ppm	3.52%
u 324.754	260741.7	1.045	0.0393	mg/L	1.045	0.0393	ppm	3.76%
e 273.955	39947.8	0.9952	0.03901	mg/L	0.9952	0.03901	ppm	3.92%
766.491	621891.6	31.33	0.508	mg/L	31.33	0.508	ppm	1.62%
g 279.079	2541252.8	63.07	1.194	mg/L	63.07	1.194	ppm	1.89%
n 257.610	1185516.7	0.9253	0.01636	mg/L	0.9253	0.01636	ppm	1.77%
o 202.030	34213.8	2.090	0.0784	mg/L	2.090	0.0784	ppm	3.75%
a 330.237	839958.1	1381	26.8	mg/L	1381	26.8	ppm	1.94%
i 231.604	43395.6	0.9896	0.03467	mg/L	0.9896	0.03467	ppm	3.50%
b 220.353	48307.3	2.978	0.1078	mg/L	2.978	0.1078	ppm	3.62%
b 206.833	1905.7	0.4642	0.00321	mg/L	0.4642	0.00321	ppm	0.69%
e 196.026	1149.8	0.4521	0.00510	mg/L	0.4521	0.00510	ppm	1.13%
l 190.800	1595.2	0.4367	0.00547	mg/L	0.4367	0.00547	ppm	1.25%
292.402	228071.0	2.033	0.0714	mg/L	2.033	0.0714	ppm	3.51%
n 213.856	50921.3	0.5105	0.01996	mg/L	0.5105	0.01996	ppm	3.91%

atrix Check Sample: 3261-1 MS F=1

lement	Expected Conc.	Measured Conc.	Std.Dev.	Calib Units	% Recovery
g 328.068	1.000	0.9883	0.038	mg/L	98.816
l 308.215	2.033	2.007	0.077	mg/L	98.686
s 188.979	0.5051	0.4769	0.002	mg/L	94.355
a 233.527	4.044	4.245	0.074	mg/L	105.047
e 313.107	0.2001	0.1865	0.003	mg/L	93.235
a 227.547	63.89	64.38	2.440	mg/L	102.426
d 228.802	0.2498	0.2522	0.008	mg/L	100.957
o 228.616	1.001	1.014	0.036	mg/L	101.359
r 267.716	1.011	0.9964	0.035	mg/L	98.536
u 324.754	1.029	1.045	0.039	mg/L	101.626
e 273.955	1.059	0.9952	0.039	mg/L	93.588
766.491	29.42	31.33	0.508	mg/L	138.210
g 279.079	63.99	63.07	1.194	mg/L	90.738
n 257.610	1.017	0.9253	0.016	mg/L	90.799
o 202.030	2.007	2.090	0.078	mg/L	104.116

a 330.237	1379	1381	26.821	mg/L	104.861
i 231.604	1.004	0.9896	0.035	mg/L	98.604
b 220.353	3.003	2.978	0.108	mg/L	99.161
b 206.833	0.5021	0.4642	0.003	mg/L	92.420
e 196.026	0.5046	0.4521	0.005	mg/L	89.505
l 190.800	0.5019	0.4367	0.005	mg/L	86.957
292.402	2.068	2.033	0.071	mg/L	98.259
n 213.856	0.5306	0.5105	0.020	mg/L	95.982

eplicate Data ----------
D: 3261-1 MSD F=1 Date: 5/19/03 11:51:29 AM

epl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Conc.	Sample Units
1	Ag 328.068	169752.1	167976.3	0.9695	mg/L	0.9695	ppm
1	Al 308.215	61823.0	58238.3	1.965	mg/L	1.965	ppm
1	As 188.979	1537.7	1407.8	0.4807	mg/L	0.4807	ppm
1	Ba 233.527	1665346.1	1666369.0	4.379	mg/L	4.379	ppm
1	Be 313.107	446983.4	446726.6	0.1925	mg/L	0.1925	ppm
1	Ca 227.547	13231.8	12575.0	63.28	mg/L	63.28	ppm
1	Cd 228.802	27846.6	27813.2	0.2475	mg/L	0.2475	ppm
1	Co 228.616	90292.3	90846.6	0.9973	mg/L	0.9973	ppm
1	Cr 267.716	88170.1	88094.8	0.9766	mg/L	0.9766	ppm
1	Cu 324.754	258736.8	255404.6	1.024	mg/L	1.024	ppm
1	Fe 273.955	39427.5	39068.5	0.9733	mg/L	0.9733	ppm
1	K 766.491	625912.2	624366.7	31.44	mg/L	31.44	ppm
1	Mg 279.079	2627138.2	2623766.9	65.11	mg/L	65.11	ppm
1	Mn 257.610	1224483.3	1223150.1	0.9547	mg/L	0.9547	ppm
1	Mo 202.030	33349.8	33502.5	2.046	mg/L	2.046	ppm
1	Na 330.237	872095.2	867446.4	1431	mg/L	1431	ppm
1	Ni 231.604	41897.7	42308.0	0.9648	mg/L	0.9648	ppm
1	Pb 220.353	47670.9	47265.3	2.913	mg/L	2.913	ppm
1	Sb 206.833	1979.5	1899.4	0.4631	mg/L	0.4631	ppm
1	Se 196.026	1256.2	1141.4	0.4488	mg/L	0.4488	ppm
1	Tl 190.800	1989.3	1621.1	0.4438	mg/L	0.4438	ppm
1	V 292.402	223145.6	223527.3	1.993	mg/L	1.993	ppm
1	Zn 213.856	49458.8	49896.1	0.5002	mg/L	0.5002	ppm
2	Ag 328.068	169100.3	167324.5	0.9657	mg/L	0.9657	ppm
2	Al 308.215	61762.1	58177.4	1.963	mg/L	1.963	ppm
2	As 188.979	1529.2	1399.3	0.4778	mg/L	0.4778	ppm
2	Ba 233.527	1600471.4	1601494.3	4.209	mg/L	4.209	ppm
2	Be 313.107	429123.9	428867.2	0.1848	mg/L	0.1848	ppm
2	Ca 227.547	12954.4	12297.5	61.88	mg/L	61.88	ppm
2	Cd 228.802	27870.6	27837.1	0.2478	mg/L	0.2478	ppm
2	Co 228.616	89848.6	90402.8	0.9925	mg/L	0.9925	ppm
2	Cr 267.716	87877.5	87802.2	0.9734	mg/L	0.9734	ppm
2	Cu 324.754	257981.8	254649.6	1.021	mg/L	1.021	ppm
2	Fe 273.955	39361.0	39002.1	0.9716	mg/L	0.9716	ppm
2	K 766.491	633827.8	632282.3	31.77	mg/L	31.77	ppm
2	Mg 279.079	2526380.2	2523008.9	62.61	mg/L	62.61	ppm
2	Mn 257.610	1177072.2	1175739.0	0.9177	mg/L	0.9177	ppm
2	Mo 202.030	33336.5	33489.2	2.045	mg/L	2.045	ppm
2	Na 330.237	836192.8	831544.0	1366	mg/L	1366	ppm
2	Ni 231.604	42077.7	42488.0	0.9689	mg/L	0.9689	ppm
2	Pb 220.353	47527.6	47122.0	2.905	mg/L	2.905	ppm
2	Sb 206.833	1980.0	1899.9	0.4633	mg/L	0.4633	ppm
2	Se 196.026	1291.6	1176.8	0.4628	mg/L	0.4628	ppm
2	Tl 190.800	2011.5	1643.4	0.4499	mg/L	0.4499	ppm
2	V 292.402	222856.3	223238.0	1.990	mg/L	1.990	ppm
2	Zn 213.856	49288.8	49726.0	0.4985	mg/L	0.4985	ppm
3	Ag 328.068	166380.3	164604.5	0.9500	mg/L	0.9500	ppm
3	Al 308.215	60821.4	57236.7	1.931	mg/L	1.931	ppm
3	As 188.979	1529.1	1399.1	0.4776	mg/L	0.4776	ppm
3	Ba 233.527	1551754.5	1552777.4	4.081	mg/L	4.081	ppm
3	Be 313.107	414677.4	414420.6	0.1786	mg/L	0.1786	ppm
3	Ca 227.547	12873.7	12216.8	61.48	mg/L	61.48	ppm
3	Cd 228.802	27371.3	27337.9	0.2433	mg/L	0.2433	ppm
3	Co 228.616	88573.7	89128.0	0.9785	mg/L	0.9785	ppm
3	Cr 267.716	86445.8	86370.5	0.9575	mg/L	0.9575	ppm

3 Cu 324.754	253513.4	250181.2	1.003 mg/L	1.003 ppm
3 Fe 273.955	38734.9	38375.9	0.9560 mg/L	0.9560 ppm
3 K 766.491	619574.1	618028.7	31.17 mg/L	31.17 ppm
3 Mg 279.079	2443387.6	2440016.3	60.55 mg/L	60.55 ppm
3 Mn 257.610	1139128.6	1137795.4	0.8881 mg/L	0.8881 ppm
3 Mo 202.030	32653.8	32806.5	2.004 mg/L	2.004 ppm
3 Na 330.237	807585.7	802936.9	1314 mg/L	1314 ppm
3 Ni 231.604	41264.6	41674.9	0.9503 mg/L	0.9503 ppm
3 Pb 220.353	46797.1	46391.6	2.860 mg/L	2.860 ppm
3 Sb 206.833	1978.5	1898.4	0.4634 mg/L	0.4634 ppm
3 Se 196.026	1276.3	1161.5	0.4567 mg/L	0.4567 ppm
3 Tl 190.800	1975.4	1607.3	0.4401 mg/L	0.4401 ppm
3 V 292.402	218810.2	219191.9	1.954 mg/L	1.954 ppm
3 Zn 213.856	48611.0	49048.2	0.4917 mg/L	0.4917 ppm

ean Data ----------

D: 3261-1 MSD F=1 Seq. No.: 19 Sample No.: 8 A/S Pos: 17
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:51:29 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
g 328.068	166635.1	0.9617	0.01032	mg/L	0.9617	0.01032	ppm	1.07%
l 308.215	57884.1	1.953	0.0189	mg/L	1.953	0.0189	ppm	0.97%
s 188.979	1402.1	0.4787	0.00174	mg/L	0.4787	0.00174	ppm	0.36%
a 233.527	1606880.2	4.223	0.1498	mg/L	4.223	0.1498	ppm	3.55%
e 313.107	430004.8	0.1853	0.00697	mg/L	0.1853	0.00697	ppm	3.76%
a 227.547	12363.1	62.21	0.945	mg/L	62.21	0.945	ppm	1.52%
d 228.802	27662.7	0.2462	0.00251	mg/L	0.2462	0.00251	ppm	1.02%
o 228.616	90125.8	0.9894	0.00979	mg/L	0.9894	0.00979	ppm	0.99%
r 267.716	87422.5	0.9692	0.01023	mg/L	0.9692	0.01023	ppm	1.06%
u 324.754	253411.8	1.016	0.0113	mg/L	1.016	0.0113	ppm	1.11%
e 273.955	38815.5	0.9670	0.00952	mg/L	0.9670	0.00952	ppm	0.98%
766.491	624892.6	31.46	0.302	mg/L	31.46	0.302	ppm	0.96%
g 279.079	2528930.7	62.76	2.284	mg/L	62.76	2.284	ppm	3.64%
n 257.610	1178894.9	0.9201	0.03338	mg/L	0.9201	0.03338	ppm	3.63%
o 202.030	33266.1	2.032	0.0243	mg/L	2.032	0.0243	ppm	1.20%
a 330.237	833975.8	1370	58.6	mg/L	1370	58.6	ppm	4.28%
i 231.604	42157.0	0.9613	0.00974	mg/L	0.9613	0.00974	ppm	1.01%
o 220.353	46926.3	2.893	0.0289	mg/L	2.893	0.0289	ppm	1.00%
o 206.833	1899.2	0.4633	0.00015	mg/L	0.4633	0.00015	ppm	0.03%
e 196.026	1159.9	0.4561	0.00699	mg/L	0.4561	0.00699	ppm	1.53%
l 190.800	1623.9	0.4446	0.00499	mg/L	0.4446	0.00499	ppm	1.12%
292.402	221985.7	1.979	0.0216	mg/L	1.979	0.0216	ppm	1.09%
n 213.856	49556.8	0.4968	0.00450	mg/L	0.4968	0.00450	ppm	0.91%

atrix Check Sample: 3261-1 MSD F=1

lement	Expected Conc.	Measured Conc.	Std.Dev.	Calib Units	% Recovery
g 328.068	1.000	0.9617	0.010	mg/L	96.155
l 308.215	2.033	1.953	0.019	mg/L	95.988
s 188.979	0.5051	0.4787	0.002	mg/L	94.716
a 233.527	4.044	4.223	0.150	mg/L	104.488
e 313.107	0.2001	0.1853	0.007	mg/L	92.635
a 227.547	63.89	62.21	0.945	mg/L	91.605
d 228.802	0.2498	0.2462	0.003	mg/L	98.555
o 228.616	1.001	0.9894	0.010	mg/L	98.862
r 267.716	1.011	0.9692	0.010	mg/L	95.810
u 324.754	1.029	1.016	0.011	mg/L	98.687
e 273.955	1.059	0.9670	0.010	mg/L	90.767
766.491	29.42	31.46	0.302	mg/L	140.761
g 279.079	63.99	62.76	2.284	mg/L	87.680
n 257.610	1.017	0.9201	0.033	mg/L	90.283
o 202.030	2.007	2.032	0.024	mg/L	101.222
a 330.237	1379	1370	58.616	mg/L	78.072
i 231.604	1.004	0.9613	0.010	mg/L	95.779
o 220.353	3.003	2.893	0.029	mg/L	96.324
o 206.833	0.5021	0.4633	0.000	mg/L	92.243
e 196.026	0.5046	0.4561	0.007	mg/L	90.299
l 190.800	0.5019	0.4446	0.005	mg/L	88.537

292.402	2.068	1.979	0.022	mg/L	95.546
n 213.856	0.5306	0.4968	0.004	mg/L	93.246

eplicate Data ----------
D: 3261-1 PS F=1 Date: 5/19/03 11:55:10 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Ag 328.068	164618.9	162843.1	0.9398	mg/L	0.9398	ppm
1	Al 308.215	60107.8	56523.2	1.907	mg/L	1.907	ppm
1	As 188.979	1523.7	1393.7	0.4757	mg/L	0.4757	ppm
1	Ba 233.527	1571024.1	1572047.0	4.132	mg/L	4.132	ppm
1	Be 313.107	421540.0	421283.2	0.1816	mg/L	0.1816	ppm
1	Ca 227.547	12677.5	12020.6	60.49	mg/L	60.49	ppm
1	Cd 228.802	26860.1	26826.7	0.2388	mg/L	0.2388	ppm
1	Co 228.616	87387.4	87941.7	0.9654	mg/L	0.9654	ppm
1	Cr 267.716	85771.5	85696.2	0.9500	mg/L	0.9500	ppm
1	Cu 324.754	250947.8	247615.6	0.9927	mg/L	0.9927	ppm
1	Fe 273.955	38383.8	38024.9	0.9473	mg/L	0.9473	ppm
1	K 766.491	599462.3	597916.9	30.31	mg/L	30.31	ppm
1	Mg 279.079	2500289.0	2496917.7	61.97	mg/L	61.97	ppm
1	Mn 257.610	1151100.0	1149766.8	0.8974	mg/L	0.8974	ppm
1	Mo 202.030	32262.5	32415.2	1.980	mg/L	1.980	ppm
1	Na 330.237	820568.3	815919.4	1337	mg/L	1337	ppm
1	Ni 231.604	40826.1	41236.4	0.9403	mg/L	0.9403	ppm
1	Pb 220.353	46360.9	45955.3	2.833	mg/L	2.833	ppm
1	Sb 206.833	1991.3	1911.1	0.4669	mg/L	0.4669	ppm
1	Se 196.026	1270.9	1156.1	0.4546	mg/L	0.4546	ppm
1	Tl 190.800	1978.2	1610.0	0.4408	mg/L	0.4408	ppm
1	V 292.402	217973.3	218355.0	1.947	mg/L	1.947	ppm
1	Zn 213.856	47797.8	48235.0	0.4835	mg/L	0.4835	ppm
2	Ag 328.068	165245.8	163470.0	0.9434	mg/L	0.9434	ppm
2	Al 308.215	60119.5	56534.9	1.907	mg/L	1.907	ppm
2	As 188.979	1522.6	1392.7	0.4754	mg/L	0.4754	ppm
2	Ba 233.527	1572692.6	1573715.5	4.136	mg/L	4.136	ppm
2	Be 313.107	421878.0	421621.2	0.1817	mg/L	0.1817	ppm
2	Ca 227.547	12845.5	12188.7	61.34	mg/L	61.34	ppm
2	Cd 228.802	27156.9	27123.4	0.2414	mg/L	0.2414	ppm
2	Co 228.616	87877.2	88431.5	0.9708	mg/L	0.9708	ppm
2	Cr 267.716	85876.5	85801.2	0.9512	mg/L	0.9512	ppm
2	Cu 324.754	251647.6	248315.4	0.9955	mg/L	0.9955	ppm
2	Fe 273.955	38214.2	37855.3	0.9431	mg/L	0.9431	ppm
2	K 766.491	602940.9	601395.4	30.46	mg/L	30.46	ppm
2	Mg 279.079	2504925.8	2501554.5	62.08	mg/L	62.08	ppm
2	Mn 257.610	1154740.3	1153407.1	0.9003	mg/L	0.9003	ppm
2	Mo 202.030	32357.4	32510.1	1.985	mg/L	1.985	ppm
2	Na 330.237	819953.3	815304.5	1336	mg/L	1336	ppm
2	Ni 231.604	40982.8	41393.1	0.9439	mg/L	0.9439	ppm
2	Pb 220.353	46446.1	46040.6	2.838	mg/L	2.838	ppm
2	Sb 206.833	1978.9	1898.7	0.4637	mg/L	0.4637	ppm
2	Se 196.026	1278.7	1163.9	0.4577	mg/L	0.4577	ppm
2	Tl 190.800	1946.1	1577.9	0.4320	mg/L	0.4320	ppm
2	V 292.402	218162.7	218544.4	1.949	mg/L	1.949	ppm
2	Zn 213.856	48068.3	48505.5	0.4863	mg/L	0.4863	ppm
3	Ag 328.068	173117.3	171341.5	0.9889	mg/L	0.9889	ppm
3	Al 308.215	63040.7	59456.0	2.006	mg/L	2.006	ppm
3	As 188.979	1556.9	1427.0	0.4873	mg/L	0.4873	ppm
3	Ba 233.527	1649148.9	1650171.8	4.337	mg/L	4.337	ppm
3	Be 313.107	442982.9	442726.1	0.1908	mg/L	0.1908	ppm
3	Ca 227.547	13401.8	12745.0	64.14	mg/L	64.14	ppm
3	Cd 228.802	28586.6	28553.1	0.2541	mg/L	0.2541	ppm
3	Co 228.616	91995.1	92549.3	1.016	mg/L	1.016	ppm
3	Cr 267.716	90099.0	90023.7	0.9980	mg/L	0.9980	ppm
3	Cu 324.754	264079.6	260747.4	1.045	mg/L	1.045	ppm
3	Fe 273.955	40074.4	39715.5	0.9894	mg/L	0.9894	ppm
3	K 766.491	622209.3	620663.8	31.28	mg/L	31.28	ppm
3	Mg 279.079	2592495.7	2589124.4	64.25	mg/L	64.25	ppm
3	Mn 257.610	1209749.3	1208416.2	0.9432	mg/L	0.9432	ppm
3	Mo 202.030	34185.9	34338.5	2.097	mg/L	2.097	ppm

3 Na 330.237	861798.2	857149.4	1412	mg/L	1412	ppm
3 Ni 231.604	42948.6	43358.9	0.9887	mg/L	0.9887	ppm
3 Pb 220.353	49095.3	48689.8	3.001	mg/L	3.001	ppm
3 Sb 206.833	2010.7	1930.6	0.4706	mg/L	0.4706	ppm
3 Se 196.026	1321.1	1206.3	0.4743	mg/L	0.4743	ppm
3 Tl 190.800	1999.4	1631.3	0.4466	mg/L	0.4466	ppm
3 V 292.402	228531.4	228913.1	2.041	mg/L	2.041	ppm
3 Zn 213.856	50334.2	50771.4	0.5090	mg/L	0.5090	ppm

ean Data ----------

D: 3261-1 PS F=1 Seq. No.: 20 Sample No.: 9 A/S Pos: 18
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 11:55:10 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	165884.9	0.9574	0.02733	mg/L	0.9574	0.02733	ppm	2.85%
l 308.215	57504.7	1.940	0.0570	mg/L	1.940	0.0570	ppm	2.94%
s 188.979	1404.5	0.4795	0.00680	mg/L	0.4795	0.00680	ppm	1.42%
a 233.527	1598644.8	4.201	0.1173	mg/L	4.201	0.1173	ppm	2.79%
e 313.107	428543.5	0.1847	0.00529	mg/L	0.1847	0.00529	ppm	2.87%
a 227.547	12318.1	61.99	1.908	mg/L	61.99	1.908	ppm	3.08%
d 228.802	27501.1	0.2448	0.00822	mg/L	0.2448	0.00822	ppm	3.36%
o 228.616	89640.8	0.9841	0.02778	mg/L	0.9841	0.02778	ppm	2.82%
r 267.716	87173.7	0.9664	0.02737	mg/L	0.9664	0.02737	ppm	2.83%
a 324.754	252226.1	1.011	0.0296	mg/L	1.011	0.0296	ppm	2.93%
e 273.955	38531.9	0.9599	0.02562	mg/L	0.9599	0.02562	ppm	2.67%
766.491	606658.7	30.68	0.521	mg/L	30.68	0.521	ppm	1.70%
g 279.079	2529198.8	62.77	1.289	mg/L	62.77	1.289	ppm	2.05%
a 257.610	1170530.0	0.9136	0.02565	mg/L	0.9136	0.02565	ppm	2.81%
o 202.030	33087.9	2.021	0.0662	mg/L	2.021	0.0662	ppm	3.28%
a 330.237	829457.8	1362	43.5	mg/L	1362	43.5	ppm	3.19%
i 231.604	41996.1	0.9576	0.02697	mg/L	0.9576	0.02697	ppm	2.82%
o 220.353	46895.2	2.891	0.0958	mg/L	2.891	0.0958	ppm	3.32%
o 206.833	1913.5	0.4671	0.00344	mg/L	0.4671	0.00344	ppm	0.74%
e 196.026	1175.4	0.4622	0.01061	mg/L	0.4622	0.01061	ppm	2.30%
l 190.800	1606.4	0.4398	0.00736	mg/L	0.4398	0.00736	ppm	1.67%
292.402	221937.5	1.979	0.0539	mg/L	1.979	0.0539	ppm	2.72%
a 213.856	49170.6	0.4929	0.01396	mg/L	0.4929	0.01396	ppm	2.83%

atrix Check Sample: 3261-1 PS F=1

.ement	Expected Conc.	Measured Conc.	Std.Dev.	Calib Units	% Recovery
g 328.068	1.000	0.9574	0.027	mg/L	95.722
. 308.215	2.033	1.940	0.057	mg/L	95.348
s 188.979	0.5051	0.4795	0.007	mg/L	94.872
a 233.527	4.044	4.201	0.117	mg/L	103.947
e 313.107	0.2001	0.1847	0.005	mg/L	92.320
a 227.547	63.89	61.99	1.908	mg/L	90.472
d 228.802	0.2498	0.2448	0.008	mg/L	97.979
o 228.616	1.001	0.9841	0.028	mg/L	98.330
r 267.716	1.011	0.9664	0.027	mg/L	95.535
a 324.754	1.029	1.011	0.030	mg/L	98.212
e 273.955	1.059	0.9599	0.026	mg/L	90.061
766.491	29.42	30.68	0.521	mg/L	125.270
g 279.079	63.99	62.77	1.289	mg/L	87.747
a 257.610	1.017	0.9136	0.026	mg/L	89.630
o 202.030	2.007	2.021	0.066	mg/L	100.678
a 330.237	1379	1362	43.498	mg/L	57.419
. 231.604	1.004	0.9576	0.027	mg/L	95.412
o 220.353	3.003	2.891	0.096	mg/L	96.260
o 206.833	0.5021	0.4671	0.003	mg/L	92.997
e 196.026	0.5046	0.4622	0.011	mg/L	91.521
. 190.800	0.5019	0.4398	0.007	mg/L	87.574
292.402	2.068	1.979	0.054	mg/L	95.525
a 213.856	0.5306	0.4929	0.014	mg/L	92.472

plicate Data ----------

D: 3261-1 F=10 Date: 5/19/03 11:58:39 AM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	1622.9	-152.9	-0.0009	mg/L	-0.0088	ppm
1	Al 308.215	3635.3	50.6	0.0017	mg/L	0.0171	ppm
1	As 188.979	138.4	8.4	0.0028	mg/L	0.0281	ppm
1	Ba 233.527	857.0	1879.9	0.0049	mg/L	0.0494	ppm
1	Be 313.107	859.3	602.5	0.0003	mg/L	0.0026	ppm
1	Ca 227.547	1642.7	985.8	4.961	mg/L	49.61	ppm
1	Cd 228.802	1.0	-32.5	-0.0003	mg/L	-0.0029	ppm
1	Co 228.616	-522.5	31.7	0.0003	mg/L	0.0035	ppm
1	Cr 267.716	262.2	186.9	0.0021	mg/L	0.0207	ppm
1	Cu 324.754	3607.6	275.3	0.0011	mg/L	0.0110	ppm
1	Fe 273.955	712.1	353.2	0.0088	mg/L	0.0880	ppm
1	K 766.491	30461.3	28915.8	1.840	mg/L	18.40	ppm
1	Mg 279.079	248036.8	244665.5	6.072	mg/L	60.72	ppm
1	Mn 257.610	3930.9	2597.7	0.0020	mg/L	0.0203	ppm
1	Mo 202.030	-116.4	36.3	0.0022	mg/L	0.0222	ppm
1	Na 330.237	83265.5	78616.7	118.8	mg/L	1188	ppm
1	Ni 231.604	-357.8	52.5	0.0012	mg/L	0.0120	ppm
1	Pb 220.353	449.1	43.6	0.0027	mg/L	0.0269	ppm
1	Sb 206.833	87.7	7.5	0.0019	mg/L	0.0194	ppm
1	Se 196.026	101.1	-13.7	-0.0054	mg/L	-0.0538	ppm
1	Tl 190.800	364.8	-3.4	-0.0009	mg/L	-0.0092	ppm
1	V 292.402	600.0	981.7	0.0088	mg/L	0.0875	ppm
1	Zn 213.856	-101.5	335.7	0.0034	mg/L	0.0337	ppm
2	Ag 328.068	1753.0	-22.8	-0.0001	mg/L	-0.0013	ppm
2	Al 308.215	3904.9	320.2	0.0108	mg/L	0.1080	ppm
2	As 188.979	126.7	-3.3	-0.0011	mg/L	-0.0109	ppm
2	Ba 233.527	1131.4	2154.2	0.0057	mg/L	0.0566	ppm
2	Be 313.107	627.2	370.5	0.0002	mg/L	0.0016	ppm
2	Ca 227.547	1623.6	966.8	4.865	mg/L	48.65	ppm
2	Cd 228.802	-20.8	-54.2	-0.0005	mg/L	-0.0048	ppm
2	Co 228.616	-511.8	42.5	0.0005	mg/L	0.0047	ppm
2	Cr 267.716	247.0	171.8	0.0019	mg/L	0.0190	ppm
2	Cu 324.754	3459.7	127.4	0.0005	mg/L	0.0051	ppm
2	Fe 273.955	471.8	112.8	0.0028	mg/L	0.0281	ppm
2	K 766.491	32041.8	30496.4	1.935	mg/L	19.35	ppm
2	Mg 279.079	252276.4	248905.1	6.177	mg/L	61.77	ppm
2	Mn 257.610	4015.5	2682.3	0.0021	mg/L	0.0209	ppm
2	Mo 202.030	-123.1	29.5	0.0018	mg/L	0.0180	ppm
2	Na 330.237	84924.0	80275.1	121.4	mg/L	1214	ppm
2	Ni 231.604	-378.3	32.0	0.0007	mg/L	0.0073	ppm
2	Pb 220.353	418.6	13.1	0.0008	mg/L	0.0081	ppm
2	Sb 206.833	83.3	3.1	0.0008	mg/L	0.0081	ppm
2	Se 196.026	109.4	-5.4	-0.0021	mg/L	-0.0214	ppm
2	Tl 190.800	367.4	-0.8	-0.0002	mg/L	-0.0021	ppm
2	V 292.402	530.4	912.1	0.0081	mg/L	0.0813	ppm
2	Zn 213.856	-116.5	320.8	0.0032	mg/L	0.0322	ppm
3	Ag 328.068	1969.1	193.3	0.0011	mg/L	0.0112	ppm
3	Al 308.215	3944.9	360.3	0.0122	mg/L	0.1215	ppm
3	As 188.979	129.6	-0.4	-0.0001	mg/L	-0.0013	ppm
3	Ba 233.527	827.0	1849.8	0.0049	mg/L	0.0486	ppm
3	Be 313.107	580.5	323.7	0.0001	mg/L	0.0014	ppm
3	Ca 227.547	1664.0	1007.1	5.068	mg/L	50.68	ppm
3	Cd 228.802	-15.8	-49.2	-0.0004	mg/L	-0.0044	ppm
3	Co 228.616	-560.3	-6.1	-0.0001	mg/L	-0.0007	ppm
3	Cr 267.716	208.7	133.5	0.0015	mg/L	0.0148	ppm
3	Cu 324.754	3458.2	126.0	0.0005	mg/L	0.0051	ppm
3	Fe 273.955	554.4	195.5	0.0049	mg/L	0.0487	ppm
3	K 766.491	31398.9	29853.4	1.896	mg/L	18.96	ppm
3	Mg 279.079	246178.4	242807.1	6.026	mg/L	60.26	ppm
3	Mn 257.610	3843.5	2510.3	0.0020	mg/L	0.0196	ppm
3	Mo 202.030	-117.4	35.2	0.0022	mg/L	0.0215	ppm
3	Na 330.237	82970.0	78321.2	118.4	mg/L	1184	ppm
3	Ni 231.604	-405.1	5.2	0.0001	mg/L	0.0012	ppm
3	Pb 220.353	433.5	28.0	0.0017	mg/L	0.0172	ppm
3	Sb 206.833	98.9	18.7	0.0048	mg/L	0.0485	ppm
3	Se 196.026	108.1	-6.7	-0.0026	mg/L	-0.0263	ppm
3	Tl 190.800	378.6	10.4	0.0029	mg/L	0.0287	ppm

3 V 292.402	434.7	816.4	0.0073 mg/L	0.0728 ppm
3 Zn 213.856	-124.8	312.4	0.0031 mg/L	0.0313 ppm

ean Data ----------

D: 3261-1 F=10 Seq. No.: 21 Sample No.: 10 A/S Pos: 19
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 10.0
Data: Original Date: 5/19/03 11:58:39 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	5.9	0.0000	0.00101	mg/L	0.0003	0.01009	ppm	>999.9%
l 308.215	243.7	0.0082	0.00568	mg/L	0.0822	0.05680	ppm	69.10%
s 188.979	1.6	0.0005	0.00203	mg/L	0.0053	0.02033	ppm	382.04%
a 233.527	1961.3	0.0052	0.00044	mg/L	0.0515	0.00441	ppm	8.55%
e 313.107	432.2	0.0002	0.00006	mg/L	0.0019	0.00064	ppm	34.55%
a 227.547	986.6	4.965	0.1017	mg/L	49.65	1.017	ppm	2.05%
d 228.802	-45.3	-0.0004	0.00010	mg/L	-0.0040	0.00102	ppm	25.18%
o 228.616	22.7	0.0002	0.00028	mg/L	0.0025	0.00280	ppm	112.47%
r 267.716	164.0	0.0018	0.00031	mg/L	0.0182	0.00305	ppm	16.79%
u 324.754	176.2	0.0007	0.00034	mg/L	0.0071	0.00344	ppm	48.69%
e 273.955	220.5	0.0055	0.00304	mg/L	0.0549	0.03043	ppm	55.38%
766.491	29755.2	1.890	0.0479	mg/L	18.90	0.479	ppm	2.53%
g 279.079	245459.2	6.092	0.0776	mg/L	60.92	0.776	ppm	1.27%
n 257.610	2596.8	0.0020	0.00007	mg/L	0.0203	0.00067	ppm	3.31%
o 202.030	33.7	0.0021	0.00022	mg/L	0.0206	0.00222	ppm	10.80%
a 330.237	79071.0	119.5	1.61	mg/L	1195	16.1	ppm	1.34%
i 231.604	29.9	0.0007	0.00054	mg/L	0.0068	0.00542	ppm	79.43%
b 220.353	28.2	0.0017	0.00094	mg/L	0.0174	0.00941	ppm	54.13%
b 206.833	9.8	0.0025	0.00208	mg/L	0.0253	0.02082	ppm	82.17%
e 196.026	-8.6	-0.0034	0.00175	mg/L	-0.0338	0.01748	ppm	51.66%
l 190.800	2.1	0.0006	0.00202	mg/L	0.0058	0.02016	ppm	348.52%
292.402	903.4	0.0081	0.00074	mg/L	0.0805	0.00740	ppm	9.19%
n 213.856	323.0	0.0032	0.00012	mg/L	0.0324	0.00118	ppm	3.65%

eplicate Data ----------

D: CCV 1447B Date: 5/19/03 12:02:13 PM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Ag 328.068	173067.7	171291.9	0.9886	mg/L		
1	Al 308.215	154427.3	150842.6	5.088	mg/L		
1	As 188.979	1533.7	1403.7	0.4752	mg/L		
1	Ba 233.527	1941482.7	1942505.6	5.105	mg/L		
1	Be 313.107	1149046.9	1148790.1	0.4951	mg/L		
1	Ca 227.547	10624.5	9967.6	50.16	mg/L		
1	Cd 228.802	112665.9	112632.5	1.002	mg/L		
1	Co 228.616	184467.9	185022.1	2.031	mg/L		
1	Cr 267.716	45508.2	45433.0	0.5037	mg/L		
1	Cu 324.754	499122.0	495789.7	1.988	mg/L		
1	Fe 273.955	204248.9	203890.0	5.079	mg/L		
1	K 766.491	290059.7	288514.2	16.04	mg/L		
1	Mg 279.079	1027148.2	1023776.9	25.41	mg/L		
1	Mn 257.610	2712626.2	2711293.0	2.116	mg/L		
1	Mo 202.030	32467.6	32620.3	1.992	mg/L		
1	Na 330.237	69585.0	64936.1	98.01	mg/L		
1	Ni 231.604	88332.8	88743.1	2.024	mg/L		
1	Pb 220.353	8675.4	8269.8	0.5098	mg/L		
1	Sb 206.833	7744.8	7664.7	1.969	mg/L		
1	Se 196.026	1410.8	1296.0	0.5096	mg/L		
1	Tl 190.800	2127.3	1759.2	0.4832	mg/L		
1	V 292.402	225007.6	225389.3	2.010	mg/L		
1	Zn 213.856	198074.8	198512.0	1.990	mg/L		
2	Ag 328.068	171615.4	169839.6	0.9802	mg/L		
2	Al 308.215	153082.8	149498.1	5.043	mg/L		
2	As 188.979	1543.8	1413.9	0.4786	mg/L		
2	Ba 233.527	1923323.2	1924346.1	5.057	mg/L		
2	Be 313.107	1139936.8	1139680.0	0.4912	mg/L		
2	Ca 227.547	10606.6	9949.7	50.07	mg/L		
2	Cd 228.802	111682.2	111648.8	0.9937	mg/L		
2	Co 228.616	182921.5	183475.7	2.014	mg/L		

2 Cr 267.716	45137.0	45061.8	0.4996	mg/L
2 Cu 324.754	495098.6	491766.4	1.972	mg/L
2 Fe 273.955	202196.5	201837.6	5.028	mg/L
2 K 766.491	279775.7	278230.3	15.52	mg/L
2 Mg 279.079	1018212.5	1014841.2	25.19	mg/L
2 Mn 257.610	2634238.9	2632905.7	2.055	mg/L
2 Mo 202.030	32249.2	32401.9	1.979	mg/L
2 Na 330.237	69526.8	64878.0	97.92	mg/L
2 Ni 231.604	87636.7	88047.0	2.008	mg/L
2 Pb 220.353	8759.0	8353.5	0.5149	mg/L
2 Sb 206.833	7812.7	7732.5	1.987	mg/L
2 Se 196.026	1415.1	1300.3	0.5113	mg/L
2 Tl 190.800	2130.2	1762.0	0.4839	mg/L
2 V 292.402	222996.4	223378.1	1.992	mg/L
2 Zn 213.856	196563.5	197000.7	1.975	mg/L
3 Ag 328.068	179115.0	177339.2	1.023	mg/L
3 Al 308.215	160093.8	156509.1	5.280	mg/L
3 As 188.979	1559.7	1429.8	0.4841	mg/L
3 Ba 233.527	2005507.9	2006530.8	5.273	mg/L
3 Be 313.107	1188568.3	1188311.5	0.5122	mg/L
3 Ca 227.547	11007.2	10350.3	52.09	mg/L
3 Cd 228.802	116554.2	116520.7	1.037	mg/L
3 Co 228.616	190682.6	191236.9	2.099	mg/L
3 Cr 267.716	47288.5	47213.2	0.5234	mg/L
3 Cu 324.754	516092.3	512760.0	2.056	mg/L
3 Fe 273.955	210602.5	210243.6	5.238	mg/L
3 K 766.491	277858.3	276312.8	15.43	mg/L
3 Mg 279.079	1062029.5	1058658.2	26.27	mg/L
3 Mn 257.610	2592452.9	2591119.7	2.022	mg/L
3 Mo 202.030	33663.7	33816.4	2.065	mg/L
3 Na 330.237	72256.8	67608.0	102.1	mg/L
3 Ni 231.604	91357.7	91768.0	2.093	mg/L
3 Pb 220.353	8822.5	8417.0	0.5188	mg/L
3 Sb 206.833	7876.9	7796.8	2.003	mg/L
3 Se 196.026	1434.0	1319.2	0.5187	mg/L
3 Tl 190.800	2157.7	1789.6	0.4915	mg/L
3 V 292.402	232636.9	233018.6	2.078	mg/L
3 Zn 213.856	204898.7	205335.9	2.058	mg/L

ean Data ----------

D: CCV 1447B Seq. No.: 22 Sample No.: 5 A/S Pos: 6
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 12:02:13 PM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Std.Dev.	Sample Units	RSD
g 328.068	172823.6	0.9974	0.02296	mg/L				2.30%
l 308.215	152283.3	5.137	0.1255	mg/L				2.44%
s 188.979	1415.8	0.4793	0.00451	mg/L				0.94%
a 233.527	1957794.2	5.145	0.1135	mg/L				2.21%
e 313.107	1158927.2	0.4995	0.01114	mg/L				2.23%
a 227.547	10089.2	50.77	1.139	mg/L				2.24%
d 228.802	113600.7	1.011	0.0229	mg/L				2.27%
o 228.616	186578.2	2.048	0.0451	mg/L				2.20%
r 267.716	45902.6	0.5089	0.01275	mg/L				2.51%
u 324.754	500105.4	2.005	0.0447	mg/L				2.23%
e 273.955	205323.7	5.115	0.1092	mg/L				2.13%
766.491	281019.1	15.66	0.330	mg/L				2.10%
g 279.079	1032425.4	25.62	0.575	mg/L				2.24%
n 257.610	2645106.1	2.065	0.0476	mg/L				2.31%
o 202.030	32946.2	2.012	0.0465	mg/L				2.31%
a 330.237	65807.4	99.33	2.373	mg/L				2.39%
i 231.604	89519.3	2.041	0.0451	mg/L				2.21%
b 220.353	8346.8	0.5145	0.00455	mg/L				0.88%
b 206.833	7731.3	1.986	0.0168	mg/L				0.85%
e 196.026	1305.2	0.5132	0.00485	mg/L				0.95%
l 190.800	1770.3	0.4862	0.00461	mg/L				0.95%
292.402	227262.0	2.026	0.0453	mg/L				2.24%
n 213.856	200282.9	2.008	0.0445	mg/L				2.22%

plicate Data ----------

D: CCB Date: 5/19/03 12:05:43 PM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	1801.3	25.5	0.0001	mg/L		
1	Al 308.215	3529.9	-54.8	-0.0018	mg/L		
1	As 188.979	124.9	-5.1	-0.0017	mg/L		
1	Ba 233.527	-780.0	242.9	0.0006	mg/L		
1	Be 313.107	1082.9	826.1	0.0004	mg/L		
1	Ca 227.547	651.5	-5.4	-0.0270	mg/L		
1	Cd 228.802	0.1	-33.4	-0.0003	mg/L		
1	Co 228.616	-505.7	48.5	0.0005	mg/L		
1	Cr 267.716	110.1	34.8	0.0004	mg/L		
1	Cu 324.754	3058.4	-273.8	-0.0011	mg/L		
1	Fe 273.955	519.3	160.4	0.0040	mg/L		
1	K 766.491	1731.2	185.8	0.0857	mg/L		
1	Mg 279.079	2742.7	-628.6	-0.0156	mg/L		
1	Mn 257.610	2368.1	1034.9	0.0008	mg/L		
1	Mo 202.030	-131.0	21.7	0.0013	mg/L		
1	Na 330.237	4739.0	90.2	-0.0243	mg/L		
1	Ni 231.604	-385.2	25.1	0.0006	mg/L		
1	Pb 220.353	418.4	12.8	0.0008	mg/L		
1	Sb 206.833	94.4	14.2	0.0037	mg/L		
1	Se 196.026	113.8	-1.0	-0.0004	mg/L		
1	Tl 190.800	369.7	1.5	0.0004	mg/L		
1	V 292.402	-452.4	-70.7	-0.0006	mg/L		
1	Zn 213.856	-433.4	3.8	0.0000	mg/L		
2	Ag 328.068	1580.3	-195.5	-0.0011	mg/L		
2	Al 308.215	3761.5	176.8	0.0060	mg/L		
2	As 188.979	127.1	-2.9	-0.0010	mg/L		
2	Ba 233.527	-752.1	270.8	0.0007	mg/L		
2	Be 313.107	828.8	572.0	0.0002	mg/L		
2	Ca 227.547	628.5	-28.4	-0.1427	mg/L		
2	Cd 228.802	-1.1	-34.6	-0.0003	mg/L		
2	Co 228.616	-511.0	43.3	0.0005	mg/L		
2	Cr 267.716	103.2	27.9	0.0003	mg/L		
2	Cu 324.754	2910.7	-421.5	-0.0017	mg/L		
2	Fe 273.955	565.9	206.9	0.0052	mg/L		
2	K 766.491	1919.4	374.0	0.0973	mg/L		
2	Mg 279.079	2477.0	-894.3	-0.0222	mg/L		
2	Mn 257.610	2197.8	864.6	0.0007	mg/L		
2	Mo 202.030	-132.2	20.5	0.0012	mg/L		
2	Na 330.237	5031.7	382.8	0.4155	mg/L		
2	Ni 231.604	-402.6	7.7	0.0002	mg/L		
2	Pb 220.353	417.4	11.9	0.0007	mg/L		
2	Sb 206.833	91.7	11.5	0.0030	mg/L		
2	Se 196.026	115.8	1.0	0.0004	mg/L		
2	Tl 190.800	377.7	9.5	0.0026	mg/L		
2	V 292.402	-291.7	90.0	0.0008	mg/L		
2	Zn 213.856	-452.7	-15.5	-0.0002	mg/L		
3	Ag 328.068	1835.5	59.7	0.0003	mg/L		
3	Al 308.215	3667.6	83.0	0.0028	mg/L		
3	As 188.979	132.7	2.7	0.0009	mg/L		
3	Ba 233.527	-903.4	119.4	0.0003	mg/L		
3	Be 313.107	1011.8	755.0	0.0003	mg/L		
3	Ca 227.547	641.2	-15.6	-0.0785	mg/L		
3	Cd 228.802	-26.9	-60.4	-0.0005	mg/L		
3	Co 228.616	-539.3	14.9	0.0002	mg/L		
3	Cr 267.716	101.0	25.7	0.0003	mg/L		
3	Cu 324.754	2898.2	-434.0	-0.0017	mg/L		
3	Fe 273.955	343.9	-15.0	-0.0004	mg/L		
3	K 766.491	2266.3	720.9	0.1188	mg/L		
3	Mg 279.079	2414.4	-956.9	-0.0237	mg/L		
3	Mn 257.610	2026.8	693.6	0.0005	mg/L		
3	Mo 202.030	-152.8	-0.1	0.0000	mg/L		
3	Na 330.237	4794.9	146.0	0.0597	mg/L		
3	Ni 231.604	-393.7	16.6	0.0004	mg/L		
3	Pb 220.353	404.3	-1.2	-0.0001	mg/L		
3	Sb 206.833	91.1	10.9	0.0028	mg/L		

3 Se 196.026	123.2	8.4	0.0033	mg/L
3 Tl 190.800	380.7	12.6	0.0035	mg/L
3 V 292.402	-467.2	-85.5	-0.0008	mg/L
3 Zn 213.856	-477.0	-39.8	-0.0004	mg/L

ean Data ----------

D: CCB Seq. No.: 23 Sample No.: 6 A/S Pos: 1
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 12:05:43 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
g 328.068	-36.8	-0.0002	0.00080	mg/L				376.66%
l 308.215	68.3	0.0023	0.00393	mg/L				170.53%
s 188.979	-1.8	-0.0006	0.00135	mg/L				228.96%
a 233.527	211.0	0.0006	0.00021	mg/L				38.16%
e 313.107	717.7	0.0003	0.00006	mg/L				18.26%
a 227.547	-16.4	-0.0827	0.05800	mg/L				70.10%
d 228.802	-42.8	-0.0004	0.00014	mg/L				35.67%
o 228.616	35.6	0.0004	0.00020	mg/L				50.83%
r 267.716	29.5	0.0003	0.00005	mg/L				16.11%
u 324.754	-376.4	-0.0015	0.00036	mg/L				23.67%
e 273.955	117.4	0.0029	0.00292	mg/L				99.65%
766.491	426.9	0.1006	0.01678	mg/L				16.68%
g 279.079	-826.6	-0.0205	0.00433	mg/L				21.09%
n 257.610	864.4	0.0007	0.00013	mg/L				19.74%
o 202.030	14.0	0.0009	0.00075	mg/L				87.61%
a 330.237	206.3	0.1503	0.23346	mg/L				155.34%
i 231.604	16.5	0.0004	0.00020	mg/L				52.72%
b 220.353	7.8	0.0005	0.00049	mg/L				100.52%
b 206.833	12.2	0.0032	0.00045	mg/L				14.25%
e 196.026	2.8	0.0011	0.00194	mg/L				176.53%
l 190.800	7.9	0.0022	0.00157	mg/L				72.59%
292.402	-22.0	-0.0002	0.00087	mg/L				441.59%
n 213.856	-17.2	-0.0002	0.00022	mg/L				127.18%

eplicate Data ----------

D: 3261-2 F=1 Date: 5/19/03 12:08:56 PM

epl# Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1 Ag 328.068	1168.3	-607.5	-0.0035	mg/L	-0.0035	ppm
1 Al 308.215	1735365.5	1731780.8	58.42	mg/L	58.42	ppm
1 As 188.979	183.9	53.9	0.0253	mg/L	0.0253	ppm
1 Ba 233.527	316390.9	317413.8	0.8342	mg/L	0.8342	ppm
1 Be 313.107	-6440.1	-6696.9	-0.0029	mg/L	-0.0029	ppm
1 Ca 227.547	23311.1	22654.2	116.5	mg/L	116.5	ppm
1 Cd 228.802	-21.1	-54.6	-0.0005	mg/L	-0.0005	ppm
1 Co 228.616	8038.3	8592.5	0.0943	mg/L	0.0943	ppm
1 Cr 267.716	12675.0	12599.7	0.1397	mg/L	0.1397	ppm
1 Cu 324.754	22468.8	19136.6	0.0811	mg/L	0.0811	ppm
1 Fe 273.955	4226933.3	4226574.3	105.3	mg/L	105.3	ppm
1 K 766.491	Saturated					
1 Mg 279.079	6239786.5	6236415.2	154.8	mg/L	154.8	ppm
1 Mn 257.610	2949361.8	2948028.6	2.301	mg/L	2.301	ppm
1 Mo 202.030	-135.5	17.2	0.0010	mg/L	0.0010	ppm
1 Na 330.237	1086831.3	1082182.4	1836	mg/L	1836	ppm
1 Ni 231.604	1967.6	2377.9	0.0542	mg/L	0.0542	ppm
1 Pb 220.353	699.4	293.9	0.0207	mg/L	0.0207	ppm
1 Sb 206.833	167.2	87.0	0.0137	mg/L	0.0137	ppm
1 Se 196.026	67.3	-47.5	-0.0073	mg/L	-0.0073	ppm
1 Tl 190.800	361.6	-6.6	-0.0272	mg/L	-0.0272	ppm
1 V 292.402	43278.5	43660.2	0.3893	mg/L	0.3893	ppm
1 Zn 213.856	23556.9	23994.1	0.2313	mg/L	0.2313	ppm
2 Ag 328.068	1342.2	-433.6	-0.0025	mg/L	-0.0025	ppm
2 Al 308.215	1712569.1	1708984.4	57.65	mg/L	57.65	ppm
2 As 188.979	189.2	59.2	0.0273	mg/L	0.0273	ppm
2 Ba 233.527	312903.0	313925.9	0.8250	mg/L	0.8250	ppm
2 Be 313.107	-6340.9	-6597.7	-0.0028	mg/L	-0.0028	ppm
2 Ca 227.547	24220.6	23563.7	121.1	mg/L	121.1	ppm

2 Cd 228.802	-36.0	-69.4	-0.0006	mg/L	-0.0006 ppm
2 Co 228.616	8501.4	9055.7	0.0994	mg/L	0.0994 ppm
2 Cr 267.716	13239.6	13164.4	0.1459	mg/L	0.1459 ppm
2 Cu 324.754	22157.9	18825.6	0.0798	mg/L	0.0798 ppm
2 Fe 273.955	4218572.3	4218213.4	105.1	mg/L	105.1 ppm
2 K 766.491	Saturated				
2 Mg 279.079	6219879.1	6216507.8	154.3	mg/L	154.3 ppm
2 Mn 257.610	2939909.7	2938576.5	2.294	mg/L	2.294 ppm
2 Mo 202.030	-51.9	100.8	0.0062	mg/L	0.0062 ppm
2 Na 330.237	1069329.3	1064680.5	1802	mg/L	1802 ppm
2 Ni 231.604	1967.8	2378.1	0.0542	mg/L	0.0542 ppm
2 Pb 220.353	712.0	306.4	0.0214	mg/L	0.0214 ppm
2 Sb 206.833	93.0	12.8	-0.0057	mg/L	-0.0057 ppm
2 Se 196.026	64.5	-50.3	-0.0084	mg/L	-0.0084 ppm
2 Tl 190.800	375.3	7.1	-0.0232	mg/L	-0.0232 ppm
2 V 292.402	42710.5	43092.2	0.3842	mg/L	0.3842 ppm
2 Zn 213.856	24379.3	24816.6	0.2396	mg/L	0.2396 ppm
3 Ag 328.068	1289.2	-486.6	-0.0028	mg/L	-0.0028 ppm
3 Al 308.215	1618116.3	1614531.6	54.46	mg/L	54.46 ppm
3 As 188.979	182.8	52.8	0.0253	mg/L	0.0253 ppm
3 Ba 233.527	296589.0	297611.9	0.7822	mg/L	0.7822 ppm
3 Be 313.107	-6050.3	-6307.1	-0.0027	mg/L	-0.0027 ppm
3 Ca 227.547	23838.8	23181.9	119.2	mg/L	119.2 ppm
3 Cd 228.802	-92.6	-126.1	-0.0011	mg/L	-0.0011 ppm
3 Co 228.616	8341.1	8895.4	0.0977	mg/L	0.0977 ppm
3 Cr 267.716	13016.9	12941.6	0.1435	mg/L	0.1435 ppm
3 Cu 324.754	20993.0	17660.8	0.0752	mg/L	0.0752 ppm
3 Fe 273.955	4248554.5	4248195.6	105.8	mg/L	105.8 ppm
3 K 766.491	Saturated				
3 Mg 279.079	6272910.9	6269539.6	155.6	mg/L	155.6 ppm
3 Mn 257.610	2963924.2	2962591.0	2.312	mg/L	2.312 ppm
3 Mo 202.030	1.1	153.8	0.0094	mg/L	0.0094 ppm
3 Na 330.237	1009737.1	1005088.3	1688	mg/L	1688 ppm
3 Ni 231.604	1993.6	2403.9	0.0548	mg/L	0.0548 ppm
3 Pb 220.353	690.6	285.0	0.0198	mg/L	0.0198 ppm
3 Sb 206.833	128.9	48.7	0.0037	mg/L	0.0037 ppm
3 Se 196.026	140.5	25.7	0.0219	mg/L	0.0219 ppm
3 Tl 190.800	427.7	59.6	-0.0085	mg/L	-0.0085 ppm
3 V 292.402	40470.1	40851.8	0.3642	mg/L	0.3642 ppm
3 Zn 213.856	24142.0	24579.3	0.2371	mg/L	0.2371 ppm

ean Data ----------

D: 3261-2 F=1 Seq. No.: 24 Sample No.: 11 A/S Pos: 20
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 5/19/03 12:08:56 PM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
g 328.068	-509.2	-0.0029	0.00051	mg/L	-0.0029	0.00051	ppm	17.51%
l 308.215	1685098.9	56.84	2.097	mg/L	56.84	2.097	ppm	3.69%
s 188.979	55.3	0.0260	0.00115	mg/L	0.0260	0.00115	ppm	4.45%
a 233.527	309650.5	0.8138	0.02778	mg/L	0.8138	0.02778	ppm	3.41%
e 313.107	-6533.9	-0.0028	0.00009	mg/L	-0.0028	0.00009	ppm	3.10%
a 227.547	23133.3	118.9	2.30	mg/L	118.9	2.30	ppm	1.93%
d 228.802	-83.4	-0.0007	0.00034	mg/L	-0.0007	0.00034	ppm	45.25%
o 228.616	8847.8	0.0971	0.00258	mg/L	0.0971	0.00258	ppm	2.66%
r 267.716	12901.9	0.1430	0.00315	mg/L	0.1430	0.00315	ppm	2.20%
u 324.754	18541.0	0.0787	0.00310	mg/L	0.0787	0.00310	ppm	3.94%
e 273.955	4230994.4	105.4	0.39	mg/L	105.4	0.39	ppm	0.37%
766.491	Saturated							
g 279.079	6240820.9	154.9	0.66	mg/L	154.9	0.66	ppm	0.43%
n 257.610	2949732.0	2.302	0.0094	mg/L	2.302	0.0094	ppm	0.41%
o 202.030	90.6	0.0055	0.00421	mg/L	0.0055	0.00421	ppm	76.03%
a 330.237	1050650.4	1775	77.8	mg/L	1775	77.8	ppm	4.38%
i 231.604	2386.6	0.0544	0.00034	mg/L	0.0544	0.00034	ppm	0.63%
b 220.353	295.1	0.0206	0.00079	mg/L	0.0206	0.00079	ppm	3.84%
b 206.833	49.5	0.0039	0.00969	mg/L	0.0039	0.00969	ppm	247.24%
e 196.026	-24.0	0.0021	0.01716	mg/L	0.0021	0.01716	ppm	826.45%
l 190.800	20.0	-0.0196	0.00986	mg/L	-0.0196	0.00986	ppm	50.26%
292.402	42534.7	0.3792	0.01324	mg/L	0.3792	0.01324	ppm	3.49%
n 213.856	24463.3	0.2360	0.00424	mg/L	0.2360	0.00424	ppm	1.80%

eplicate Data
D: 3261-2 F=10 Date: 5/19/03 12:11:52 PM

epl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Ag 328.068	1679.9	-95.9	-0.0006	mg/L	-0.0055	ppm
1	Al 308.215	212156.7	208572.0	7.036	mg/L	70.36	ppm
1	As 188.979	137.5	7.6	0.0025	mg/L	0.0253	ppm
1	Ba 233.527	35737.6	36760.5	0.0966	mg/L	0.9661	ppm
1	Be 313.107	-574.3	-831.0	-0.0004	mg/L	-0.0036	ppm
1	Ca 227.547	3321.2	2664.3	13.41	mg/L	134.1	ppm
1	Cd 228.802	-41.1	-74.5	-0.0007	mg/L	-0.0066	ppm
1	Co 228.616	467.4	1021.6	0.0112	mg/L	0.1122	ppm
1	Cr 267.716	1557.9	1482.6	0.0164	mg/L	0.1644	ppm
1	Cu 324.754	4670.3	1338.1	0.0054	mg/L	0.0536	ppm
1	Fe 273.955	512683.0	512324.0	12.76	mg/L	127.6	ppm
1	K 766.491	118383.8	116838.4	6.951	mg/L	69.51	ppm
1	Mg 279.079	743804.0	740432.7	18.38	mg/L	183.8	ppm
1	Mn 257.610	352120.9	350787.7	0.2738	mg/L	2.738	ppm
1	Mo 202.030	-149.8	2.9	0.0002	mg/L	0.0017	ppm
1	Na 330.237	113129.2	108480.3	164.5	mg/L	1645	ppm
1	Ni 231.604	-43.1	367.2	0.0084	mg/L	0.0837	ppm
1	Pb 220.353	454.8	49.2	0.0030	mg/L	0.0303	ppm
1	Sb 206.833	84.5	4.3	0.0011	mg/L	0.0112	ppm
1	Se 196.026	107.6	-7.2	-0.0009	mg/L	-0.0088	ppm
1	Tl 190.800	382.9	14.7	0.0014	mg/L	0.0141	ppm
1	V 292.402	4567.5	4949.2	0.0441	mg/L	0.4413	ppm
1	Zn 213.856	2169.6	2606.8	0.0261	mg/L	0.2613	ppm
2	Ag 328.068	1745.8	-30.0	-0.0002	mg/L	-0.0017	ppm
2	Al 308.215	208052.0	204467.3	6.897	mg/L	68.97	ppm
2	As 188.979	142.7	12.7	0.0043	mg/L	0.0425	ppm
2	Ba 233.527	34943.0	35965.9	0.0945	mg/L	0.9452	ppm
2	Be 313.107	-463.4	-720.2	-0.0003	mg/L	-0.0031	ppm
2	Ca 227.547	3260.7	2603.9	13.10	mg/L	131.0	ppm
2	Cd 228.802	-32.5	-65.9	-0.0006	mg/L	-0.0059	ppm
2	Co 228.616	455.4	1009.6	0.0111	mg/L	0.1108	ppm
2	Cr 267.716	1545.5	1470.3	0.0163	mg/L	0.1630	ppm
2	Cu 324.754	4696.8	1364.6	0.0055	mg/L	0.0547	ppm
2	Fe 273.955	487225.2	486866.3	12.13	mg/L	121.3	ppm
2	K 766.491	112396.9	110851.4	6.615	mg/L	66.15	ppm
2	Mg 279.079	707510.4	704139.0	17.47	mg/L	174.7	ppm
2	Mn 257.610	343813.0	342479.8	0.2673	mg/L	2.673	ppm
2	Mo 202.030	-148.1	4.6	0.0003	mg/L	0.0028	ppm
2	Na 330.237	110798.4	106149.6	160.9	mg/L	1609	ppm
2	Ni 231.604	-54.6	355.7	0.0081	mg/L	0.0811	ppm
2	Pb 220.353	443.9	38.4	0.0024	mg/L	0.0237	ppm
2	Sb 206.833	88.6	8.4	0.0022	mg/L	0.0219	ppm
2	Se 196.026	122.0	7.2	0.0047	mg/L	0.0467	ppm
2	Tl 190.800	383.9	15.8	0.0018	mg/L	0.0179	ppm
2	V 292.402	4427.3	4809.0	0.0429	mg/L	0.4288	ppm
2	Zn 213.856	2169.2	2606.4	0.0261	mg/L	0.2613	ppm
3	Ag 328.068	1823.0	47.2	0.0003	mg/L	0.0027	ppm
3	Al 308.215	198409.0	194824.3	6.572	mg/L	65.72	ppm
3	As 188.979	133.1	3.2	0.0011	mg/L	0.0107	ppm
3	Ba 233.527	33402.8	34425.7	0.0905	mg/L	0.9047	ppm
3	Be 313.107	-276.2	-533.0	-0.0002	mg/L	-0.0023	ppm
3	Ca 227.547	3310.8	2653.9	13.36	mg/L	133.6	ppm
3	Cd 228.802	-38.4	-71.9	-0.0006	mg/L	-0.0064	ppm
3	Co 228.616	464.7	1018.9	0.0112	mg/L	0.1119	ppm
3	Cr 267.716	1543.9	1468.7	0.0163	mg/L	0.1628	ppm
3	Cu 324.754	4667.7	1335.4	0.0054	mg/L	0.0535	ppm
3	Fe 273.955	496285.8	495926.9	12.35	mg/L	123.5	ppm
3	K 766.491	116288.9	114743.4	6.834	mg/L	68.34	ppm
3	Mg 279.079	721054.9	717683.6	17.81	mg/L	178.1	ppm
3	Mn 257.610	328666.9	327333.7	0.2555	mg/L	2.555	ppm
3	Mo 202.030	-146.3	6.3	0.0004	mg/L	0.0039	ppm
3	Na 330.237	105108.2	100459.3	152.2	mg/L	1522	ppm
3	Ni 231.604	-71.4	338.9	0.0077	mg/L	0.0773	ppm

3 Pb 220.353	454.2	48.7	0.0030 mg/L	0.0300 ppm
3 Sb 206.833	103.1	23.0	0.0059 mg/L	0.0595 ppm
3 Se 196.026	116.3	1.5	0.0025 mg/L	0.0248 ppm
3 Tl 190.800	386.3	18.1	0.0025 mg/L	0.0246 ppm
3 V 292.402	4213.0	4594.7	0.0410 mg/L	0.4097 ppm
3 Zn 213.856	2170.6	2607.8	0.0261 mg/L	0.2614 ppm

ean Data ----------

D: 3261-2 F=10 Seq. No.: 25 Sample No.: 12 A/S Pos: 21
ample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 10.0
Data: Original Date: 5/19/03 12:11:52 PM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
g 328.068	-26.3	-0.0002	0.00041	mg/L	-0.0015	0.00413	ppm	272.80%
l 308.215	202621.2	6.835	0.2381	mg/L	68.35	2.381	ppm	3.48%
s 188.979	7.8	0.0026	0.00159	mg/L	0.0262	0.01594	ppm	60.86%
a 233.527	35717.4	0.0939	0.00312	mg/L	0.9387	0.03120	ppm	3.32%
e 313.107	-694.8	-0.0003	0.00006	mg/L	-0.0030	0.00065	ppm	21.68%
a 227.547	2640.7	13.29	0.163	mg/L	132.9	1.63	ppm	1.22%
d 228.802	-70.8	-0.0006	0.00004	mg/L	-0.0063	0.00039	ppm	6.21%
o 228.616	1016.7	0.0112	0.00007	mg/L	0.1116	0.00069	ppm	0.62%
r 267.716	1473.8	0.0163	0.00008	mg/L	0.1634	0.00084	ppm	0.52%
u 324.754	1346.0	0.0054	0.00006	mg/L	0.0540	0.00065	ppm	1.20%
e 273.955	498372.4	12.42	0.321	mg/L	124.2	3.21	ppm	2.59%
766.491	114144.4	6.800	0.1710	mg/L	68.00	1.710	ppm	2.51%
g 279.079	720751.8	17.89	0.455	mg/L	178.9	4.55	ppm	2.54%
n 257.610	340200.4	0.2655	0.00928	mg/L	2.655	0.0928	ppm	3.50%
o 202.030	4.6	0.0003	0.00011	mg/L	0.0028	0.00106	ppm	37.93%
a 330.237	105029.7	159.2	6.32	mg/L	1592	63.2	ppm	3.97%
i 231.604	354.0	0.0081	0.00032	mg/L	0.0807	0.00325	ppm	4.02%
b 220.353	45.4	0.0028	0.00038	mg/L	0.0280	0.00376	ppm	13.42%
b 206.833	11.9	0.0031	0.00254	mg/L	0.0308	0.02538	ppm	82.28%
e 196.026	0.5	0.0021	0.00279	mg/L	0.0209	0.02795	ppm	133.84%
l 190.800	16.2	0.0019	0.00053	mg/L	0.0189	0.00531	ppm	28.12%
292.402	4784.3	0.0427	0.00159	mg/L	0.4266	0.01592	ppm	3.73%
n 213.856	2607.0	0.0261	0.00001	mg/L	0.2613	0.00007	ppm	0.03%

eplicate Data ----------

D: 3261-3 F=1 Date: 5/19/03 12:15:28 PM

epl# Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1 Ag 328.068	1505.0	-270.8	-0.0016	mg/L	-0.0016	ppm
1 Al 308.215	3896.2	311.5	0.0105	mg/L	0.0105	ppm
1 As 188.979	121.4	-8.5	-0.0005	mg/L	-0.0005	ppm
1 Ba 233.527	33104.3	34127.2	0.0897	mg/L	0.0897	ppm
1 Be 313.107	68.9	-187.8	-0.0001	mg/L	-0.0001	ppm
1 Ca 227.547	15697.1	15040.2	75.69	mg/L	75.69	ppm
1 Cd 228.802	11.5	-21.9	-0.0002	mg/L	-0.0002	ppm
1 Co 228.616	-460.6	93.6	0.0010	mg/L	0.0010	ppm
1 Cr 267.716	593.2	517.9	0.0057	mg/L	0.0057	ppm
1 Cu 324.754	5426.7	2094.5	0.0084	mg/L	0.0084	ppm
1 Fe 273.955	22876.2	22517.2	0.5610	mg/L	0.5610	ppm
1 K 766.491	Saturated					
1 Mg 279.079	14875952.7	14872581.4	369.1	mg/L	369.1	ppm
1 Mn 257.610	1185291.7	1183958.5	0.9184	mg/L	0.9184	ppm
1 Mo 202.030	432.4	585.0	0.0357	mg/L	0.0357	ppm
1 Na 330.237	3260185.7	3255536.9	8011	mg/L	8011	ppm
1 Ni 231.604	-198.4	211.9	0.0048	mg/L	0.0048	ppm
1 Pb 220.353	407.7	2.2	-0.0013	mg/L	-0.0013	ppm
1 Sb 206.833	93.4	13.3	0.0034	mg/L	0.0034	ppm
1 Se 196.026	124.2	9.4	0.0037	mg/L	0.0037	ppm
1 Tl 190.800	394.4	26.2	-0.0012	mg/L	-0.0012	ppm
1 V 292.402	1316.9	1698.6	0.0151	mg/L	0.0151	ppm
1 Zn 213.856	883.1	1320.3	0.0078	mg/L	0.0078	ppm
2 Ag 328.068	1506.2	-269.6	-0.0016	mg/L	-0.0016	ppm
2 Al 308.215	4245.0	660.4	0.0223	mg/L	0.0223	ppm
2 As 188.979	124.8	-5.1	0.0006	mg/L	0.0006	ppm
2 Ba 233.527	33380.0	34402.8	0.0904	mg/L	0.0904	ppm