010001

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

FINAL REPORT

SOUTHWEST RESEARCH INSTITUTE
Client: Division 20
Task Order: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
Project#: 06002.01.071

METALS ANALYSIS

SOUTHWEST RESEARCH INSTITUTE
Client: Division 20
Task Order: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
Project#: 06002.01.071

SAMPLE DATA

SOUTHWEST RESEARCH INSTITUTE 010004

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMD-0A

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226202

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	398	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.3	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.262	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	<0.001	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID: UMD-0A

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226202

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<0.5	<0.5	0.00%
Antimony	<0.1	<0.1	0.00%
Arsenic	<0.05	<0.05	0.00%
Barium	<0.05	<0.05	0.00%
Beryllium	<0.05	<0.05	0.00%
Bismuth	<0.15	<0.15	0.00%
Boron	<0.25	<0.25	0.00%
Cadmium	<0.05	<0.05	0.00%
Calcium	398	392	1.41%
Chromium	<0.05	<0.05	0.00%
Cobalt	<0.05	<0.05	0.00%
Copper	<0.05	<0.05	0.00%
Iron	<0.6	<0.6	0.00%
Lanthanum	<0.05	<0.05	0.00%
Lead	<0.05	<0.05	0.00%
Lithium	<0.05	<0.05	0.00%
Magnesium	<0.5	<0.5	0.00%
Manganese	<0.05	<0.05	0.00%
Molybdenum	<0.05	<0.05	0.00%
Nickel	<0.05	<0.05	0.00%
Palladium	<0.1	<0.1	0.00%
Phosphorus	<0.25	<0.25	0.00%
Potassium	<1	<1	0.00%
Selenium	<0.05	<0.05	0.00%
Silicon	32.3	32.4	0.10%
Silver	<0.05	<0.05	0.00%
Sodium	<1	<1	0.00%
Strontium	0.262	0.255	2.71%
Sulfur	<0.25	<0.25	0.00%
Thallium	<0.1	<0.1	0.00%
Thorium	<0.1	<0.1	0.00%
Tin	<0.05	<0.05	0.00%
Titanium	<0.05	<0.05	0.00%
Tungsten	<0.1	<0.1	0.00%
Uranium	-----	-----	-----
Vanadium	<0.05	<0.05	0.00%
Yttrium	<0.05	<0.05	0.00%
Zinc	<0.05	<0.05	0.00%
Zirconium	<0.05	<0.05	0.00%

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMD-0B

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226203

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	398	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.254	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.00489	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
UMD-0B

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226203

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<0.5	19.5	20	97.3%
Antimony	<0.1	4.97	5.00	99.4%
Arsenic	<0.05	20.3	20	101.3%
Barium	<0.05	20.1	20	100.4%
Beryllium	<0.05	0.495	0.500	99.0%
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	<0.05	0.514	0.500	102.8%
Calcium	398	593	200	97.4%
Chromium	<0.05	1.97	2.00	98.4%
Cobalt	<0.05	5.02	5.00	100.4%
Copper	<0.05	2.48	2.50	99.0%
Iron	<0.6	11.2	10	112.0%
Lanthanum	NA	NA	NA	NA
Lead	<0.05	5.13	5.00	102.7%
Lithium	NA	NA	NA	NA
Magnesium	<0.5	205	200	102.5%
Manganese	<0.05	5.08	5.00	101.6%
Molybdenum	NA	NA	NA	NA
Nickel	<0.05	4.87	5.00	97.3%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	<1	176	200	88.2%
Selenium	<0.05	20.9	20	104.7%
Silicon	32.4	74.1	40	104.3%
Silver	<0.05	0.522	0.500	104.4%
Sodium	<1	187	200	93.4%
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	<0.1	21.0	20	104.8%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Uranium	-----	-----	-----	-----
Vanadium	<0.05	5.05	5.00	101.1%
Yttrium	NA	NA	NA	NA
Zinc	<0.05	5.05	5.00	101.1%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010008

Sample ID
UMD-7A

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226204

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	400	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.255	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.0250	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010009

Sample ID
UMD-7B

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226205

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	397	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.253	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.0255	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010010

Sample ID
URSD-0A-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226206

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.114	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	397	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.258	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.206	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010011

Sample ID
URSD-0A-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226207

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.452	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	458	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.7	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.306	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.23	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

010012

Sample ID
URSD-0A-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226207

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	-----	-----	-----
Antimony	-----	-----	-----
Arsenic	-----	-----	-----
Barium	-----	-----	-----
Beryllium	-----	-----	-----
Bismuth	-----	-----	-----
Boron	-----	-----	-----
Cadmium	-----	-----	-----
Calcium	-----	-----	-----
Chromium	-----	-----	-----
Cobalt	-----	-----	-----
Copper	-----	-----	-----
Iron	-----	-----	-----
Lanthanum	-----	-----	-----
Lead	-----	-----	-----
Lithium	-----	-----	-----
Magnesium	-----	-----	-----
Manganese	-----	-----	-----
Molybdenum	-----	-----	-----
Nickel	-----	-----	-----
Palladium	-----	-----	-----
Phosphorus	-----	-----	-----
Potassium	-----	-----	-----
Selenium	-----	-----	-----
Silicon	-----	-----	-----
Silver	-----	-----	-----
Sodium	-----	-----	-----
Strontium	-----	-----	-----
Sulfur	-----	-----	-----
Thallium	-----	-----	-----
Thorium	-----	-----	-----
Tin	-----	-----	-----
Titanium	-----	-----	-----
Tungsten	-----	-----	-----
Uranium	1.23	1.28	3.98%
Vanadium	-----	-----	-----
Yttrium	-----	-----	-----
Zinc	-----	-----	-----
Zirconium	-----	-----	-----

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010013

Sample ID
URSD-0A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226208

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.217	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	394	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.6	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.262	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.613	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

010014

Sample ID
URSD-0A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226208

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	-----	-----	-----
Antimony	-----	-----	-----
Arsenic	-----	-----	-----
Barium	-----	-----	-----
Beryllium	-----	-----	-----
Bismuth	-----	-----	-----
Boron	-----	-----	-----
Cadmium	-----	-----	-----
Calcium	-----	-----	-----
Chromium	-----	-----	-----
Cobalt	-----	-----	-----
Copper	-----	-----	-----
Iron	-----	-----	-----
Lanthanum	-----	-----	-----
Lead	-----	-----	-----
Lithium	-----	-----	-----
Magnesium	-----	-----	-----
Manganese	-----	-----	-----
Molybdenum	-----	-----	-----
Nickel	-----	-----	-----
Palladium	-----	-----	-----
Phosphorus	-----	-----	-----
Potassium	-----	-----	-----
Selenium	-----	-----	-----
Silicon	-----	-----	-----
Silver	-----	-----	-----
Sodium	-----	-----	-----
Strontium	-----	-----	-----
Sulfur	-----	-----	-----
Thallium	-----	-----	-----
Thorium	-----	-----	-----
Tin	-----	-----	-----
Titanium	-----	-----	-----
Tungsten	-----	-----	-----
Uranium	0.613	0.558	9.39%
Vanadium	-----	-----	-----
Yttrium	-----	-----	-----
Zinc	-----	-----	-----
Zirconium	-----	-----	-----

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010015

Sample ID
URSD-0A-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226209

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.304	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	409	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.1	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.263	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.15	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010016

Sample ID
URSD-0A-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226210

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.371	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	412	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.269	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.496	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010017

Sample ID
URSD-0A-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226211

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.405	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	416	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.275	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.964	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010018

Sample ID
URSD-0A-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226212

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.417	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	423	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.0	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.279	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.451	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010019

Sample ID
URSD-0A-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226213

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.430	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	431	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.282	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.14	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010020

Sample ID
URSD-0A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226214

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.438	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	437	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	34.2	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.288	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.29	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010021

Sample ID
URSD-0A-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226215

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.444	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	451	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.293	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	7.97	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010022

Sample ID
URSD-0B-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226216

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.196	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	391	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.6	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.260	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.294	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET 010023

Sample ID
URSD-0B-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226217

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.432	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	457	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	36.2	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.302	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.34	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010024

Sample ID
URSD-0B-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226218

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.334	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	400	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.6	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.262	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.15	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010025

Sample ID
URSD-0B-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226219

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.389	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	399	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.265	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.11	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010026

Sample ID
URSD-0B-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226220

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.391	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	409	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.268	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.48	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010027

Sample ID
URSD-0B-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226221

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.400	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	410	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.275	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.67	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010028

Sample ID
URSD-0B-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226222

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.410	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	423	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.277	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.31	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010029

Sample ID
URSD-0B-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226223

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.415	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	427	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.282	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.08	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE 010030

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226224

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.424	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	442	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	34.7	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.290	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.89	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010031

Sample ID
URSD-0B-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226225

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.431	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	450	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.6	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.294	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	3.40	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010032

Sample ID
URSD-1A-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226226

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	374	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	29.5	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.220	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.10	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

010033

Sample ID
URSD-1A-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226226

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<0.5	<0.5	0.00%
Antimony	<0.1	<0.1	0.00%
Arsenic	<0.05	<0.05	0.00%
Barium	<0.05	<0.05	0.00%
Beryllium	<0.05	<0.05	0.00%
Bismuth	<0.15	<0.15	0.00%
Boron	<0.25	<0.25	0.00%
Cadmium	<0.05	<0.05	0.00%
Calcium	374	373	0.20%
Chromium	<0.05	<0.05	0.00%
Cobalt	<0.05	<0.05	0.00%
Copper	<0.05	<0.05	0.00%
Iron	<0.6	<0.6	0.00%
Lanthanum	<0.05	<0.05	0.00%
Lead	<0.05	<0.05	0.00%
Lithium	<0.05	<0.05	0.00%
Magnesium	<0.5	<0.5	0.00%
Manganese	<0.05	<0.05	0.00%
Molybdenum	<0.05	<0.05	0.00%
Nickel	<0.05	<0.05	0.00%
Palladium	<0.1	<0.1	0.00%
Phosphorus	<0.25	<0.25	0.00%
Potassium	<1	<1	0.00%
Selenium	<0.05	<0.05	0.00%
Silicon	29.5	29.2	0.80%
Silver	<0.05	<0.05	0.00%
Sodium	<1	<1	0.00%
Strontium	0.220	0.218	0.78%
Sulfur	<0.25	<0.25	0.00%
Thallium	<0.1	<0.1	0.00%
Thorium	<0.1	<0.1	0.00%
Tin	<0.05	<0.05	0.00%
Titanium	<0.05	<0.05	0.00%
Tungsten	<0.1	<0.1	0.00%
Uranium	-----	-----	-----
Vanadium	<0.05	<0.05	0.00%
Yttrium	<0.05	<0.05	0.00%
Zinc	<0.05	<0.05	0.00%
Zirconium	<0.05	<0.05	0.00%

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010034

Sample ID
URSD-1A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226227

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	358	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	1.33	1
Selenium	<0.05	0.05
Silicon	27.7	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.209	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.218	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

010035

Sample ID
URSD-1A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226227

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<0.5	19.7	20	98.6%
Antimony	<0.1	4.97	5.00	99.3%
Arsenic	<0.05	20.4	20	101.9%
Barium	<0.05	20.5	20	102.6%
Beryllium	<0.05	0.488	0.500	97.7%
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	<0.05	0.516	0.500	103.1%
Calcium	358	553	200	97.7%
Chromium	<0.05	1.93	2.00	96.4%
Cobalt	<0.05	5.06	5.00	101.2%
Copper	<0.05	2.54	2.50	101.8%
Iron	<0.6	11.2	10	111.8%
Lanthanum	NA	NA	NA	NA
Lead	<0.05	5.16	5.00	103.2%
Lithium	NA	NA	NA	NA
Magnesium	<0.5	205	200	102.4%
Manganese	<0.05	5.10	5.00	102.0%
Molybdenum	NA	NA	NA	NA
Nickel	<0.05	4.81	5.00	96.2%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	1.33	182	200	90.2%
Selenium	<0.05	20.9	20	104.6%
Silicon	27.7	69.1	40	103.4%
Silver	<0.05	0.514	0.500	102.7%
Sodium	<1	187	200	93.3%
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	<0.1	21.0	20	105.2%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Uranium	-----	-----	-----	-----
Vanadium	<0.05	5.09	5.00	101.8%
Yttrium	NA	NA	NA	NA
Zinc	<0.05	5.16	5.00	103.3%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010036

Sample ID
URSD-1A-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226228

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	474	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	39.1	0.25
Silver	<0.05	0.05
Sodium	1.48	1
Strontium	0.274	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.108	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

010037

MATRIX SPIKE SUMMARY

Sample ID
URSD-1A-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226228

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	-----	-----	-----	-----
Antimony	-----	-----	-----	-----
Arsenic	-----	-----	-----	-----
Barium	-----	-----	-----	-----
Beryllium	-----	-----	-----	-----
Bismuth	-----	-----	-----	-----
Boron	-----	-----	-----	-----
Cadmium	-----	-----	-----	-----
Calcium	-----	-----	-----	-----
Chromium	-----	-----	-----	-----
Cobalt	-----	-----	-----	-----
Copper	-----	-----	-----	-----
Iron	-----	-----	-----	-----
Lanthanum	-----	-----	-----	-----
Lead	-----	-----	-----	-----
Lithium	-----	-----	-----	-----
Magnesium	-----	-----	-----	-----
Manganese	-----	-----	-----	-----
Molybdenum	-----	-----	-----	-----
Nickel	-----	-----	-----	-----
Palladium	-----	-----	-----	-----
Phosphorus	-----	-----	-----	-----
Potassium	-----	-----	-----	-----
Selenium	-----	-----	-----	-----
Silicon	-----	-----	-----	-----
Silver	-----	-----	-----	-----
Sodium	-----	-----	-----	-----
Strontium	-----	-----	-----	-----
Sulfur	-----	-----	-----	-----
Thallium	-----	-----	-----	-----
Thorium	-----	-----	-----	-----
Tin	-----	-----	-----	-----
Titanium	-----	-----	-----	-----
Tungsten	-----	-----	-----	-----
Uranium	0.108	2.37	2.00	113.1%
Vanadium	-----	-----	-----	-----
Yttrium	-----	-----	-----	-----
Zinc	-----	-----	-----	-----
Zirconium	-----	-----	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010038

Sample ID
URSD-1A-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226229

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	439	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	2.07	1
Selenium	<0.05	0.05
Silicon	41.3	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.261	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.0538	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010039

Sample ID
URSD-1A-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226230

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	455	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.3	0.25
Silver	<0.05	0.05
Sodium	1.70	1
Strontium	0.264	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.0233	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010040

Sample ID
URSD-1A-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226231

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	397	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	37.1	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.238	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.397	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010041

Sample ID
URSD-1A-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226232

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	412	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.2	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.239	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.06	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010042

Sample ID
URSD-1A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226233

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	403	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.9	0.25
Silver	<0.05	0.05
Sodium	2.29	1
Strontium	0.237	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.633	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY 010043

Sample ID
URSD-1A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226233

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	-----	-----	-----	-----
Antimony	-----	-----	-----	-----
Arsenic	-----	-----	-----	-----
Barium	-----	-----	-----	-----
Beryllium	-----	-----	-----	-----
Bismuth	-----	-----	-----	-----
Boron	-----	-----	-----	-----
Cadmium	-----	-----	-----	-----
Calcium	-----	-----	-----	-----
Chromium	-----	-----	-----	-----
Cobalt	-----	-----	-----	-----
Copper	-----	-----	-----	-----
Iron	-----	-----	-----	-----
Lanthanum	-----	-----	-----	-----
Lead	-----	-----	-----	-----
Lithium	-----	-----	-----	-----
Magnesium	-----	-----	-----	-----
Manganese	-----	-----	-----	-----
Molybdenum	-----	-----	-----	-----
Nickel	-----	-----	-----	-----
Palladium	-----	-----	-----	-----
Phosphorus	-----	-----	-----	-----
Potassium	-----	-----	-----	-----
Selenium	-----	-----	-----	-----
Silicon	-----	-----	-----	-----
Silver	-----	-----	-----	-----
Sodium	-----	-----	-----	-----
Strontium	-----	-----	-----	-----
Sulfur	-----	-----	-----	-----
Thallium	-----	-----	-----	-----
Thorium	-----	-----	-----	-----
Tin	-----	-----	-----	-----
Titanium	-----	-----	-----	-----
Tungsten	-----	-----	-----	-----
Uranium	0.633	11.3	10.0	106.7%
Vanadium	-----	-----	-----	-----
Yttrium	-----	-----	-----	-----
Zinc	-----	-----	-----	-----
Zirconium	-----	-----	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010044

Sample ID
URSD-7A-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226234

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.191	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	398	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.261	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.322	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010045

Sample ID
URSD-7A-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226235

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.500	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	510	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	40.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.336	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	9.22	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010046

Sample ID
URSD-7A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226236

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.344	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	393	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	30.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.269	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.821	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010047

Sample ID
URSD-7A-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226237

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.404	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	410	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.2	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.268	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.941	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010048

Sample ID
URSD-7A-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226238

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.422	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	416	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.2	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.277	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.56	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010049

Sample ID
URSD-7A-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226239

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.427	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	425	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.282	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	3.17	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE 010050

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226240

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.441	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	435	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	34.6	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.290	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.35	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010051

Sample ID
URSD-7A-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226241

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.449	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	450	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.299	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	3.01	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010052

Sample ID
URSD-7A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226242

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.469	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	474	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	37.5	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.309	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.08	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

010053

Sample ID
URSD-7A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226242

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<0.5	<0.5	0.00%
Antimony	<0.1	<0.1	0.00%
Arsenic	<0.05	<0.05	0.00%
Barium	0.469	0.468	0.09%
Beryllium	<0.05	<0.05	0.00%
Bismuth	<0.15	<0.15	0.00%
Boron	<0.25	<0.25	0.00%
Cadmium	<0.05	<0.05	0.00%
Calcium	474	480	1.28%
Chromium	<0.05	<0.05	0.00%
Cobalt	<0.05	<0.05	0.00%
Copper	<0.05	<0.05	0.00%
Iron	<0.6	<0.6	0.00%
Lanthanum	<0.05	<0.05	0.00%
Lead	<0.05	<0.05	0.00%
Lithium	<0.05	<0.05	0.00%
Magnesium	<0.5	<0.5	0.00%
Manganese	<0.05	<0.05	0.00%
Molybdenum	<0.05	<0.05	0.00%
Nickel	<0.05	<0.05	0.00%
Palladium	<0.1	<0.1	0.00%
Phosphorus	<0.25	<0.25	0.00%
Potassium	<1	<1	0.00%
Selenium	<0.05	<0.05	0.00%
Silicon	37.5	37.6	0.36%
Silver	<0.05	<0.05	0.00%
Sodium	<1	<1	0.00%
Strontium	0.309	0.312	1.00%
Sulfur	<0.25	<0.25	0.00%
Thallium	<0.1	<0.1	0.00%
Thorium	<0.1	<0.1	0.00%
Tin	<0.05	<0.05	0.00%
Titanium	<0.05	<0.05	0.00%
Tungsten	<0.1	<0.1	0.00%
Uranium	-----	-----	-----
Vanadium	<0.05	<0.05	0.00%
Yttrium	<0.05	<0.05	0.00%
Zinc	<0.05	<0.05	0.00%
Zirconium	<0.05	<0.05	0.00%

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010054

Sample ID
URSD-7A-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226243

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.483	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	488	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	38.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.321	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	3.05	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

010055

Sample ID
URSD-7A-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226243

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<0.5	19.8	20	98.9%
Antimony	<0.1	5.00	5.00	100.0%
Arsenic	<0.05	20.5	20	102.6%
Barium	0.483	20.9	20	102.0%
Beryllium	<0.05	0.495	0.500	99.1%
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	<0.05	0.524	0.500	104.7%
Calcium	488	691	200	101.3%
Chromium	<0.05	1.95	2.00	97.7%
Cobalt	<0.05	5.14	5.00	102.8%
Copper	<0.05	2.53	2.50	101.2%
Iron	<0.6	11.2	10	112.3%
Lanthanum	NA	NA	NA	NA
Lead	<0.05	5.22	5.00	104.5%
Lithium	NA	NA	NA	NA
Magnesium	<0.5	204	200	102.2%
Manganese	<0.05	5.16	5.00	103.3%
Molybdenum	NA	NA	NA	NA
Nickel	<0.05	4.91	5.00	98.1%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	<1	176	200	88.2%
Selenium	<0.05	21.0	20	104.8%
Silicon	38.8	81.1	40	105.9%
Silver	<0.05	0.463	0.500	92.6%
Sodium	<1	186	200	93.0%
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	<0.1	21.2	20	105.9%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Uranium	-----	-----	-----	-----
Vanadium	<0.05	5.14	5.00	102.8%
Yttrium	NA	NA	NA	NA
Zinc	<0.05	5.23	5.00	104.7%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010056

Sample ID
URSD-7B-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226244

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.190	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	412	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.267	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.394	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010057

Sample ID
URSD-7B-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226245

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.516	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	502	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	39.5	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.324	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	3.94	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010058

Sample ID
URSD-7B-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226246

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.356	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	416	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.7	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.268	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.826	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010059

Sample ID
URSD-7B-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226247

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.438	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	423	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.274	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.21	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010060

Sample ID
URSD-7B-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226248

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.462	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	433	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	34.3	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.283	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.57	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

010061

Sample ID
URSD-7B-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226248

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	-----	-----	-----
Antimony	-----	-----	-----
Arsenic	-----	-----	-----
Barium	-----	-----	-----
Beryllium	-----	-----	-----
Bismuth	-----	-----	-----
Boron	-----	-----	-----
Cadmium	-----	-----	-----
Calcium	-----	-----	-----
Chromium	-----	-----	-----
Cobalt	-----	-----	-----
Copper	-----	-----	-----
Iron	-----	-----	-----
Lanthanum	-----	-----	-----
Lead	-----	-----	-----
Lithium	-----	-----	-----
Magnesium	-----	-----	-----
Manganese	-----	-----	-----
Molybdenum	-----	-----	-----
Nickel	-----	-----	-----
Palladium	-----	-----	-----
Phosphorus	-----	-----	-----
Potassium	-----	-----	-----
Selenium	-----	-----	-----
Silicon	-----	-----	-----
Silver	-----	-----	-----
Sodium	-----	-----	-----
Strontium	-----	-----	-----
Sulfur	-----	-----	-----
Thallium	-----	-----	-----
Thorium	-----	-----	-----
Tin	-----	-----	-----
Titanium	-----	-----	-----
Tungsten	-----	-----	-----
Uranium	1.57	1.60	1.89%
Vanadium	-----	-----	-----
Yttrium	-----	-----	-----
Zinc	-----	-----	-----
Zirconium	-----	-----	-----

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010062

Sample ID
URSD-7B-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226249

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.468	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	444	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.1	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.289	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.62	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET 010063

Sample ID
URSD-7B-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226250

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.478	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	455	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.298	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.61	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010064

Sample ID
URSD-7B-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226251

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.479	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	463	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	36.5	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.299	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.76	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

010065

Sample ID
URSD-7B-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226251

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	-----	-----	-----	-----
Antimony	-----	-----	-----	-----
Arsenic	-----	-----	-----	-----
Barium	-----	-----	-----	-----
Beryllium	-----	-----	-----	-----
Bismuth	-----	-----	-----	-----
Boron	-----	-----	-----	-----
Cadmium	-----	-----	-----	-----
Calcium	-----	-----	-----	-----
Chromium	-----	-----	-----	-----
Cobalt	-----	-----	-----	-----
Copper	-----	-----	-----	-----
Iron	-----	-----	-----	-----
Lanthanum	-----	-----	-----	-----
Lead	-----	-----	-----	-----
Lithium	-----	-----	-----	-----
Magnesium	-----	-----	-----	-----
Manganese	-----	-----	-----	-----
Molybdenum	-----	-----	-----	-----
Nickel	-----	-----	-----	-----
Palladium	-----	-----	-----	-----
Phosphorus	-----	-----	-----	-----
Potassium	-----	-----	-----	-----
Selenium	-----	-----	-----	-----
Silicon	-----	-----	-----	-----
Silver	-----	-----	-----	-----
Sodium	-----	-----	-----	-----
Strontium	-----	-----	-----	-----
Sulfur	-----	-----	-----	-----
Thallium	-----	-----	-----	-----
Thorium	-----	-----	-----	-----
Tin	-----	-----	-----	-----
Titanium	-----	-----	-----	-----
Tungsten	-----	-----	-----	-----
Uranium	2.76	48.1	40.0	113.4%
Vanadium	-----	-----	-----	-----
Yttrium	-----	-----	-----	-----
Zinc	-----	-----	-----	-----
Zirconium	-----	-----	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010066

Sample ID
URSD-7B-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226252

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.491	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	469	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	36.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.305	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.86	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

010067

Sample ID
URSD-7B-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226253

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.499	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	485	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	38.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.315	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	4.00	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE 010068

LABORATORY CONTROL SAMPLE

Sample ID: LCSW-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	19.1	20	95.6%
Antimony	4.96	5.00	99.2%
Arsenic	20.1	20	100.3%
Barium	19.9	20	99.7%
Beryllium	0.495	0.500	99.0%
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	0.512	0.500	102.3%
Calcium	204	200	101.9%
Chromium	1.97	2.00	98.7%
Cobalt	5.04	5.00	100.8%
Copper	2.43	2.50	97.3%
Iron	10.9	10	108.8%
Lanthanum	NA	NA	NA
Lead	5.12	5.00	102.5%
Lithium	NA	NA	NA
Magnesium	205	200	102.5%
Manganese	5.08	5.00	101.5%
Molybdenum	NA	NA	NA
Nickel	4.90	5.00	98.1%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	167	200	83.4%
Selenium	20.6	20	103.0%
Silicon	41.9	40	104.7%
Silver	0.508	0.500	101.6%
Sodium	177	200	88.3%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	20.7	20	103.7%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Uranium	0.197	0.200	98.5%
Vanadium	5.03	5.00	100.6%
Yttrium	NA	NA	NA
Zinc	5.12	5.00	102.5%
Zirconium	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE 010069

Sample ID
LCSW-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	19.3	20	96.7%
Antimony	4.93	5.00	98.6%
Arsenic	20.2	20	101.0%
Barium	20.4	20	101.9%
Beryllium	0.488	0.500	97.5%
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	0.518	0.500	103.5%
Calcium	202	200	101.0%
Chromium	1.94	2.00	96.8%
Cobalt	5.05	5.00	101.1%
Copper	2.50	2.50	99.9%
Iron	10.8	10	108.1%
Lanthanum	NA	NA	NA
Lead	5.08	5.00	101.6%
Lithium	NA	NA	NA
Magnesium	205	200	102.5%
Manganese	5.09	5.00	101.9%
Molybdenum	NA	NA	NA
Nickel	4.84	5.00	96.8%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	172	200	86.0%
Selenium	20.4	20	101.8%
Silicon	41.7	40	104.2%
Silver	0.496	0.500	99.2%
Sodium	180	200	89.9%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	21.0	20	104.8%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Uranium	0.203	0.200	101.5%
Vanadium	5.06	5.00	101.2%
Yttrium	NA	NA	NA
Zinc	5.15	5.00	103.0%
Zirconium	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE

010070

Sample ID
LCSW-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	19.6	20	97.9%
Antimony	4.94	5.00	98.7%
Arsenic	20.2	20	101.0%
Barium	20.5	20	102.7%
Beryllium	0.488	0.500	97.7%
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	0.518	0.500	103.6%
Calcium	197	200	98.6%
Chromium	1.94	2.00	97.0%
Cobalt	5.10	5.00	102.1%
Copper	2.53	2.50	101.1%
Iron	11.1	10	110.7%
Lanthanum	NA	NA	NA
Lead	5.17	5.00	103.4%
Lithium	NA	NA	NA
Magnesium	200	200	100.1%
Manganese	5.10	5.00	102.0%
Molybdenum	NA	NA	NA
Nickel	4.84	5.00	96.8%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	169	200	84.6%
Selenium	20.6	20	103.1%
Silicon	41.6	40	103.9%
Silver	0.460	0.500	92.1%
Sodium	179	200	89.5%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	21.0	20	104.8%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Uranium	0.195	0.200	97.5%
Vanadium	5.06	5.00	101.3%
Yttrium	NA	NA	NA
Zinc	5.14	5.00	102.8%
Zirconium	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE 010071

Sample ID
LCSW-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	-----	-----	-----
Antimony	-----	-----	-----
Arsenic	-----	-----	-----
Barium	-----	-----	-----
Beryllium	-----	-----	-----
Bismuth	-----	-----	-----
Boron	-----	-----	-----
Cadmium	-----	-----	-----
Calcium	-----	-----	-----
Chromium	-----	-----	-----
Cobalt	-----	-----	-----
Copper	-----	-----	-----
Iron	-----	-----	-----
Lanthanum	-----	-----	-----
Lead	-----	-----	-----
Lithium	-----	-----	-----
Magnesium	-----	-----	-----
Manganese	-----	-----	-----
Molybdenum	-----	-----	-----
Nickel	-----	-----	-----
Palladium	-----	-----	-----
Phosphorus	-----	-----	-----
Potassium	-----	-----	-----
Selenium	-----	-----	-----
Silicon	-----	-----	-----
Silver	-----	-----	-----
Sodium	-----	-----	-----
Strontium	-----	-----	-----
Sulfur	-----	-----	-----
Thallium	-----	-----	-----
Thorium	-----	-----	-----
Tin	-----	-----	-----
Titanium	-----	-----	-----
Tungsten	-----	-----	-----
Uranium	0.208	0.200	104.0%
Vanadium	-----	-----	-----
Yttrium	-----	-----	-----
Zinc	-----	-----	-----
Zirconium	-----	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE 010072

Sample ID
LCSW-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	-----	-----	-----
Antimony	-----	-----	-----
Arsenic	-----	-----	-----
Barium	-----	-----	-----
Beryllium	-----	-----	-----
Bismuth	-----	-----	-----
Boron	-----	-----	-----
Cadmium	-----	-----	-----
Calcium	-----	-----	-----
Chromium	-----	-----	-----
Cobalt	-----	-----	-----
Copper	-----	-----	-----
Iron	-----	-----	-----
Lanthanum	-----	-----	-----
Lead	-----	-----	-----
Lithium	-----	-----	-----
Magnesium	-----	-----	-----
Manganese	-----	-----	-----
Molybdenum	-----	-----	-----
Nickel	-----	-----	-----
Palladium	-----	-----	-----
Phosphorus	-----	-----	-----
Potassium	-----	-----	-----
Selenium	-----	-----	-----
Silicon	-----	-----	-----
Silver	-----	-----	-----
Sodium	-----	-----	-----
Strontium	-----	-----	-----
Sulfur	-----	-----	-----
Thallium	-----	-----	-----
Thorium	-----	-----	-----
Tin	-----	-----	-----
Titanium	-----	-----	-----
Tungsten	-----	-----	-----
Uranium	0.209	0.200	104.5%
Vanadium	-----	-----	-----
Yttrium	-----	-----	-----
Zinc	-----	-----	-----
Zirconium	-----	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY 010073

Sample ID: PBW-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	<1.5	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	<0.25	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	<0.001	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY 010074

Sample ID: PBW-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	<1.5	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	<0.25	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	<0.001	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

010075

Sample ID: PBW-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	<1.5	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	<0.25	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	<0.001	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

010076

Sample ID: PBW-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	-----	-----
Antimony	-----	-----
Arsenic	-----	-----
Barium	-----	-----
Beryllium	-----	-----
Bismuth	-----	-----
Boron	-----	-----
Cadmium	-----	-----
Calcium	-----	-----
Chromium	-----	-----
Cobalt	-----	-----
Copper	-----	-----
Iron	-----	-----
Lanthanum	-----	-----
Lead	-----	-----
Lithium	-----	-----
Magnesium	-----	-----
Manganese	-----	-----
Molybdenum	-----	-----
Nickel	-----	-----
Palladium	-----	-----
Phosphorus	-----	-----
Potassium	-----	-----
Selenium	-----	-----
Silicon	-----	-----
Silver	-----	-----
Sodium	-----	-----
Strontium	-----	-----
Sulfur	-----	-----
Thallium	-----	-----
Thorium	-----	-----
Tin	-----	-----
Titanium	-----	-----
Tungsten	-----	-----
Uranium	<0.001	0.001
Vanadium	-----	-----
Yttrium	-----	-----
Zinc	-----	-----
Zirconium	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

010077

Sample ID: PBW-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	-----	-----
Antimony	-----	-----
Arsenic	-----	-----
Barium	-----	-----
Beryllium	-----	-----
Bismuth	-----	-----
Boron	-----	-----
Cadmium	-----	-----
Calcium	-----	-----
Chromium	-----	-----
Cobalt	-----	-----
Copper	-----	-----
Iron	-----	-----
Lanthanum	-----	-----
Lead	-----	-----
Lithium	-----	-----
Magnesium	-----	-----
Manganese	-----	-----
Molybdenum	-----	-----
Nickel	-----	-----
Palladium	-----	-----
Phosphorus	-----	-----
Potassium	-----	-----
Selenium	-----	-----
Silicon	-----	-----
Silver	-----	-----
Sodium	-----	-----
Strontium	-----	-----
Sulfur	-----	-----
Thallium	-----	-----
Thorium	-----	-----
Tin	-----	-----
Titanium	-----	-----
Tungsten	-----	-----
Uranium	<0.001	0.001
Vanadium	-----	-----
Yttrium	-----	-----
Zinc	-----	-----
Zirconium	-----	-----

NA- Not Applicable.

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010078

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

Work Orders/01-QPP-015

Southwest Research Institute

Laboratory Task Order

TO #: 030520-13 Revision: 0

010079

SDG: 226202
VTSR: 05/20/03
CASE: CNWRA - JIM PRIKRYL

SRR #'s: 24329
Client(s): DIV 20

Project(s): 06002.01.071
Manager(s): DAMMANN, MIKE
To PM:
To QA: 06/09/03
To Client: 06/09/03

Instructions

DIVISION 20 / CNWRA. Point of contact is Jim Prikryl. Work is Nuclear Safety Related, 10 CFR 50, Part 21, Appendix B. Contact Charlie Butcher (ext. 5928, pager 271-5172) before any work is begun. Analysis requested are cations to include Silicon by ICP and Uranium by ICPMS. Currently using 21-day TAT on task order, could change depending on availability of instruments.
DIGESTION METHOD: Currently using 3005A. Shoot and dilute could be used also.

Documents Related to this task order: 5319

Test: DIG-3005A
Section: METALPREP

Holding: 180 days from CED

Digestion Method 3005A ICP Total Metals (for Ca, Mg, K, Na, Si)

Cnt: 52

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
226202		1	Water	UMD-0A	20 May 03	16 Nov 03
226203		1	Water	UMD-0B	20 May 03	16 Nov 03
226204		1	Water	UMD-7A	20 May 03	16 Nov 03
226205		1	Water	UMD-7B	20 May 03	16 Nov 03
226206		1	Water	URSD-0A-1	20 May 03	16 Nov 03
226207		1	Water	URSD-0A-10	20 May 03	16 Nov 03
226208		1	Water	URSD-0A-2	20 May 03	16 Nov 03
226209		1	Water	URSD-0A-3	20 May 03	16 Nov 03
226210		1	Water	URSD-0A-4	20 May 03	16 Nov 03
226211		1	Water	URSD-0A-5	20 May 03	16 Nov 03
226212		1	Water	URSD-0A-6	20 May 03	16 Nov 03
226213		1	Water	URSD-0A-7	20 May 03	16 Nov 03
226214		1	Water	URSD-0A-8	20 May 03	16 Nov 03
226215		1	Water	URSD-0A-9	20 May 03	16 Nov 03
226216		1	Water	URSD-0B-1	20 May 03	16 Nov 03
226217		1	Water	URSD-0B-10	20 May 03	16 Nov 03
226218		1	Water	URSD-0B-2	20 May 03	16 Nov 03
226219		1	Water	URSD-0B-3	20 May 03	16 Nov 03
226220		1	Water	URSD-0B-4	20 May 03	16 Nov 03
226221		1	Water	URSD-0B-5	20 May 03	16 Nov 03
226222		1	Water	URSD-0B-6	20 May 03	16 Nov 03
226223		1	Water	URSD-0B-7	20 May 03	16 Nov 03
226224		1	Water	URSD-0B-8	20 May 03	16 Nov 03
226225		1	Water	URSD-0B-9	20 May 03	16 Nov 03
226226		1	Water	URSD-1A-1	20 May 03	16 Nov 03
226227		1	Water	URSD-1A-2	20 May 03	16 Nov 03
226228		1	Water	URSD-1A-3	20 May 03	16 Nov 03
226229		1	Water	URSD-1A-4	20 May 03	16 Nov 03
226230		1	Water	URSD-1A-5	20 May 03	16 Nov 03
226231		1	Water	URSD-1A-6	20 May 03	16 Nov 03
226232		1	Water	URSD-1A-7	20 May 03	16 Nov 03
226233		1	Water	URSD-1A-8	20 May 03	16 Nov 03
226234		1	Water	URSD-7A-1	20 May 03	16 Nov 03
226235		1	Water	URSD-7A-10	20 May 03	16 Nov 03
226236		1	Water	URSD-7A-2	20 May 03	16 Nov 03
226237		1	Water	URSD-7A-3	20 May 03	16 Nov 03
226238		1	Water	URSD-7A-4	20 May 03	16 Nov 03
226239		1	Water	URSD-7A-5	20 May 03	16 Nov 03
226240		1	Water	URSD-7A-6	20 May 03	16 Nov 03
226241		1	Water	URSD-7A-7	20 May 03	16 Nov 03

Southwest Research Institute

Laboratory Task Order

TO #: 030520-13 Revision: 0

010080

SDG: 226202
VTSR: 05/20/03
CASE: CNWRA - JIM PRIKRYL

SRR #'s: 24329
Client(s): DIV 20

Project(s): 06002.01.071
Manager(s): DAMMANN, MIKE
To PM:
To QA: 06/09/03
To Client: 06/09/03

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
226242		1	Water	URSD-7A-8	20 May 03	16 Nov 03
226243		1	Water	URSD-7A-9	20 May 03	16 Nov 03
226244		1	Water	URSD-7B-1	20 May 03	16 Nov 03
226245		1	Water	URSD-7B-10	20 May 03	16 Nov 03
226246		1	Water	URSD-7B-2	20 May 03	16 Nov 03
226247		1	Water	URSD-7B-3	20 May 03	16 Nov 03
226248		1	Water	URSD-7B-4	20 May 03	16 Nov 03
226249		1	Water	URSD-7B-5	20 May 03	16 Nov 03
226250		1	Water	URSD-7B-6	20 May 03	16 Nov 03
226251		1	Water	URSD-7B-7	20 May 03	16 Nov 03
226252		1	Water	URSD-7B-8	20 May 03	16 Nov 03
226253		1	Water	URSD-7B-9	20 May 03	16 Nov 03

Test: DIG-3005A-ICPMS
Section: METALPREP

Holding: 180 days from CED

Digestion Method 3005A ICPMS Total Metals (for U)

Cnt: 52

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
226202		1	Water	UMD-0A	20 May 03	16 Nov 03
226203		1	Water	UMD-0B	20 May 03	16 Nov 03
226204		1	Water	UMD-7A	20 May 03	16 Nov 03
226205		1	Water	UMD-7B	20 May 03	16 Nov 03
226206		1	Water	URSD-0A-1	20 May 03	16 Nov 03
226207		1	Water	URSD-0A-10	20 May 03	16 Nov 03
226208		1	Water	URSD-0A-2	20 May 03	16 Nov 03
226209		1	Water	URSD-0A-3	20 May 03	16 Nov 03
226210		1	Water	URSD-0A-4	20 May 03	16 Nov 03
226211		1	Water	URSD-0A-5	20 May 03	16 Nov 03
226212		1	Water	URSD-0A-6	20 May 03	16 Nov 03
226213		1	Water	URSD-0A-7	20 May 03	16 Nov 03
226214		1	Water	URSD-0A-8	20 May 03	16 Nov 03
226215		1	Water	URSD-0A-9	20 May 03	16 Nov 03
226216		1	Water	URSD-0B-1	20 May 03	16 Nov 03
226217		1	Water	URSD-0B-10	20 May 03	16 Nov 03
226218		1	Water	URSD-0B-2	20 May 03	16 Nov 03
226219		1	Water	URSD-0B-3	20 May 03	16 Nov 03
226220		1	Water	URSD-0B-4	20 May 03	16 Nov 03
226221		1	Water	URSD-0B-5	20 May 03	16 Nov 03
226222		1	Water	URSD-0B-6	20 May 03	16 Nov 03
226223		1	Water	URSD-0B-7	20 May 03	16 Nov 03
226224		1	Water	URSD-0B-8	20 May 03	16 Nov 03
226225		1	Water	URSD-0B-9	20 May 03	16 Nov 03
226226		1	Water	URSD-1A-1	20 May 03	16 Nov 03
226227		1	Water	URSD-1A-2	20 May 03	16 Nov 03
226228		1	Water	URSD-1A-3	20 May 03	16 Nov 03
226229		1	Water	URSD-1A-4	20 May 03	16 Nov 03
226230		1	Water	URSD-1A-5	20 May 03	16 Nov 03
226231		1	Water	URSD-1A-6	20 May 03	16 Nov 03
226232		1	Water	URSD-1A-7	20 May 03	16 Nov 03
226233		1	Water	URSD-1A-8	20 May 03	16 Nov 03
226234		1	Water	URSD-7A-1	20 May 03	16 Nov 03
226235		1	Water	URSD-7A-10	20 May 03	16 Nov 03
226236		1	Water	URSD-7A-2	20 May 03	16 Nov 03

Southwest Research Institute

Laboratory Task Order

TO #: 030520-13 Revision: 0

010081

SDG: 226202
VTSR: 05/20/03
CASE: CNWRA - JIM PRIKRYL

SRR #'s: 24329
Client(s): DIV 20

Project(s): 06002.01.071
Manager(s): DAMMANN, MIKE
To PM:
To QA: 06/09/03
To Client: 06/09/03

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
226237		1	Water	URSD-7A-3	20 May 03	16 Nov 03
226238		1	Water	URSD-7A-4	20 May 03	16 Nov 03
226239		1	Water	URSD-7A-5	20 May 03	16 Nov 03
226240		1	Water	URSD-7A-6	20 May 03	16 Nov 03
226241		1	Water	URSD-7A-7	20 May 03	16 Nov 03
226242		1	Water	URSD-7A-8	20 May 03	16 Nov 03
226243		1	Water	URSD-7A-9	20 May 03	16 Nov 03
226244		1	Water	URSD-7B-1	20 May 03	16 Nov 03
226245		1	Water	URSD-7B-10	20 May 03	16 Nov 03
226246		1	Water	URSD-7B-2	20 May 03	16 Nov 03
226247		1	Water	URSD-7B-3	20 May 03	16 Nov 03
226248		1	Water	URSD-7B-4	20 May 03	16 Nov 03
226249		1	Water	URSD-7B-5	20 May 03	16 Nov 03
226250		1	Water	URSD-7B-6	20 May 03	16 Nov 03
226251		1	Water	URSD-7B-7	20 May 03	16 Nov 03
226252		1	Water	URSD-7B-8	20 May 03	16 Nov 03
226253		1	Water	URSD-7B-9	20 May 03	16 Nov 03

Test: ICP-SWRI
Section: METALS

Holding: 180 days from CED

ICP Analysis by SwRI Method (per COC, Ca, Mg, K, Na, Si)

Cnt: 52

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
226202		1	Water	UMD-0A	20 May 03	16 Nov 03
226203		1	Water	UMD-0B	20 May 03	16 Nov 03
226204		1	Water	UMD-7A	20 May 03	16 Nov 03
226205		1	Water	UMD-7B	20 May 03	16 Nov 03
226206		1	Water	URSD-0A-1	20 May 03	16 Nov 03
226207		1	Water	URSD-0A-10	20 May 03	16 Nov 03
226208		1	Water	URSD-0A-2	20 May 03	16 Nov 03
226209		1	Water	URSD-0A-3	20 May 03	16 Nov 03
226210		1	Water	URSD-0A-4	20 May 03	16 Nov 03
226211		1	Water	URSD-0A-5	20 May 03	16 Nov 03
226212		1	Water	URSD-0A-6	20 May 03	16 Nov 03
226213		1	Water	URSD-0A-7	20 May 03	16 Nov 03
226214		1	Water	URSD-0A-8	20 May 03	16 Nov 03
226215		1	Water	URSD-0A-9	20 May 03	16 Nov 03
226216		1	Water	URSD-0B-1	20 May 03	16 Nov 03
226217		1	Water	URSD-0B-10	20 May 03	16 Nov 03
226218		1	Water	URSD-0B-2	20 May 03	16 Nov 03
226219		1	Water	URSD-0B-3	20 May 03	16 Nov 03
226220		1	Water	URSD-0B-4	20 May 03	16 Nov 03
226221		1	Water	URSD-0B-5	20 May 03	16 Nov 03
226222		1	Water	URSD-0B-6	20 May 03	16 Nov 03
226223		1	Water	URSD-0B-7	20 May 03	16 Nov 03
226224		1	Water	URSD-0B-8	20 May 03	16 Nov 03
226225		1	Water	URSD-0B-9	20 May 03	16 Nov 03
226226		1	Water	URSD-1A-1	20 May 03	16 Nov 03
226227		1	Water	URSD-1A-2	20 May 03	16 Nov 03
226228		1	Water	URSD-1A-3	20 May 03	16 Nov 03
226229		1	Water	URSD-1A-4	20 May 03	16 Nov 03
226230		1	Water	URSD-1A-5	20 May 03	16 Nov 03
226231		1	Water	URSD-1A-6	20 May 03	16 Nov 03

Southwest Research Institute

Laboratory Task Order

TO #: 030520-13 Revision: 0

010082

SDG: 226202
VTSR: 05/20/03
CASE: CNWRA - JIM PRIKRYL

SRR #'s: 24329
Client(s): DIV 20

Project(s): 06002.01.071
Manager(s): DAMMANN, MIKE
To PM:
To QA: 06/09/03
To Client: 06/09/03

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
226232		1	Water	URSD-1A-7	20 May 03	16 Nov 03
226233		1	Water	URSD-1A-8	20 May 03	16 Nov 03
226234		1	Water	URSD-7A-1	20 May 03	16 Nov 03
226235		1	Water	URSD-7A-10	20 May 03	16 Nov 03
226236		1	Water	URSD-7A-2	20 May 03	16 Nov 03
226237		1	Water	URSD-7A-3	20 May 03	16 Nov 03
226238		1	Water	URSD-7A-4	20 May 03	16 Nov 03
226239		1	Water	URSD-7A-5	20 May 03	16 Nov 03
226240		1	Water	URSD-7A-6	20 May 03	16 Nov 03
226241		1	Water	URSD-7A-7	20 May 03	16 Nov 03
226242		1	Water	URSD-7A-8	20 May 03	16 Nov 03
226243		1	Water	URSD-7A-9	20 May 03	16 Nov 03
226244		1	Water	URSD-7B-1	20 May 03	16 Nov 03
226245		1	Water	URSD-7B-10	20 May 03	16 Nov 03
226246		1	Water	URSD-7B-2	20 May 03	16 Nov 03
226247		1	Water	URSD-7B-3	20 May 03	16 Nov 03
226248		1	Water	URSD-7B-4	20 May 03	16 Nov 03
226249		1	Water	URSD-7B-5	20 May 03	16 Nov 03
226250		1	Water	URSD-7B-6	20 May 03	16 Nov 03
226251		1	Water	URSD-7B-7	20 May 03	16 Nov 03
226252		1	Water	URSD-7B-8	20 May 03	16 Nov 03
226253		1	Water	URSD-7B-9	20 May 03	16 Nov 03

Test: ICPMS-SWRI
Section: METALS

Holding: 180 days from CED

ICPMS Analysis by SwRI Method (per COC, Uranium)

Cnt: 52

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
226202		1	Water	UMD-0A	20 May 03	16 Nov 03
226203		1	Water	UMD-0B	20 May 03	16 Nov 03
226204		1	Water	UMD-7A	20 May 03	16 Nov 03
226205		1	Water	UMD-7B	20 May 03	16 Nov 03
226206		1	Water	URSD-0A-1	20 May 03	16 Nov 03
226207		1	Water	URSD-0A-10	20 May 03	16 Nov 03
226208		1	Water	URSD-0A-2	20 May 03	16 Nov 03
226209		1	Water	URSD-0A-3	20 May 03	16 Nov 03
226210		1	Water	URSD-0A-4	20 May 03	16 Nov 03
226211		1	Water	URSD-0A-5	20 May 03	16 Nov 03
226212		1	Water	URSD-0A-6	20 May 03	16 Nov 03
226213		1	Water	URSD-0A-7	20 May 03	16 Nov 03
226214		1	Water	URSD-0A-8	20 May 03	16 Nov 03
226215		1	Water	URSD-0A-9	20 May 03	16 Nov 03
226216		1	Water	URSD-0B-1	20 May 03	16 Nov 03
226217		1	Water	URSD-0B-10	20 May 03	16 Nov 03
226218		1	Water	URSD-0B-2	20 May 03	16 Nov 03
226219		1	Water	URSD-0B-3	20 May 03	16 Nov 03
226220		1	Water	URSD-0B-4	20 May 03	16 Nov 03
226221		1	Water	URSD-0B-5	20 May 03	16 Nov 03
226222		1	Water	URSD-0B-6	20 May 03	16 Nov 03
226223		1	Water	URSD-0B-7	20 May 03	16 Nov 03
226224		1	Water	URSD-0B-8	20 May 03	16 Nov 03
226225		1	Water	URSD-0B-9	20 May 03	16 Nov 03
226226		1	Water	URSD-1A-1	20 May 03	16 Nov 03

Southwest Research Institute

Laboratory Task Order

TO #: 030520-13 Revision: 0

010083

SDG: 226202
VTSR: 05/20/03
CASE: CNWRA - JIM PRIKRYL

SRR #'s: 24329
Client(s): DIV 20

Project(s): 06002.01.071
Manager(s): DAMMANN, MIKE
To PM:
To QA: 06/09/03
To Client: 06/09/03

System ID	Type	Cont	Matrix	Customer ID	CED	Method Date
226227		1	Water	URSD-1A-2	20 May 03	16 Nov 03
226228		1	Water	URSD-1A-3	20 May 03	16 Nov 03
226229		1	Water	URSD-1A-4	20 May 03	16 Nov 03
226230		1	Water	URSD-1A-5	20 May 03	16 Nov 03
226231		1	Water	URSD-1A-6	20 May 03	16 Nov 03
226232		1	Water	URSD-1A-7	20 May 03	16 Nov 03
226233		1	Water	URSD-1A-8	20 May 03	16 Nov 03
226234		1	Water	URSD-7A-1	20 May 03	16 Nov 03
226235		1	Water	URSD-7A-10	20 May 03	16 Nov 03
226236		1	Water	URSD-7A-2	20 May 03	16 Nov 03
226237		1	Water	URSD-7A-3	20 May 03	16 Nov 03
226238		1	Water	URSD-7A-4	20 May 03	16 Nov 03
226239		1	Water	URSD-7A-5	20 May 03	16 Nov 03
226240		1	Water	URSD-7A-6	20 May 03	16 Nov 03
226241		1	Water	URSD-7A-7	20 May 03	16 Nov 03
226242		1	Water	URSD-7A-8	20 May 03	16 Nov 03
226243		1	Water	URSD-7A-9	20 May 03	16 Nov 03
226244		1	Water	URSD-7B-1	20 May 03	16 Nov 03
226245		1	Water	URSD-7B-10	20 May 03	16 Nov 03
226246		1	Water	URSD-7B-2	20 May 03	16 Nov 03
226247		1	Water	URSD-7B-3	20 May 03	16 Nov 03
226248		1	Water	URSD-7B-4	20 May 03	16 Nov 03
226249		1	Water	URSD-7B-5	20 May 03	16 Nov 03
226250		1	Water	URSD-7B-6	20 May 03	16 Nov 03
226251		1	Water	URSD-7B-7	20 May 03	16 Nov 03
226252		1	Water	URSD-7B-8	20 May 03	16 Nov 03
226253		1	Water	URSD-7B-9	20 May 03	16 Nov 03

010084

01-QPP-015
Division 01
Revision 4
November 2002

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IF STAMP IS NOT RED, THIS DOCUMENT IS UNCONTROLLED

Document No. 3

Chemistry and Chemical
Engineering Division

QUALITY PROJECT PLAN FOR

PERFORMANCE OF CHEMICAL ANALYSES FOR COMMERCIAL NUCLEAR POWER PLANTS WITHIN THE DEPARTMENT OF ANALYTICAL AND ENVIRONMENTAL CHEMISTRY

DIV. 20 SRR #24329
PROJECT #06002.01.071
CASE #CNWRA
VTSR: 5/20/03 14:05

SOUTHWEST RESEARCH INSTITUTE
Chemistry and Chemical Engineering Division
6220 CULEBRA ROAD, SAN ANTONIO, TEXAS 78238

QUALITY PROJECT PLAN FOR PERFORMANCE OF CHEMICAL ANALYSES FOR COMMERCIAL NUCLEAR POWER PLANTS WITHIN THE DEPARTMENT OF ANALYTICAL AND ENVIONMENTAL CHEMISTRY

SwRI AUTHORIZATION SIGNATORIES

This is to certify that this Quality Project Plan of Southwest Research Institute (SwRI) has been reviewed and approved by the following personnel:

JOANN BOYD (210) 522-2169 — **DATE** 10/30/02
Quality Assurance Manager

REZA KARIMI (210) 522-2412 — **DATE** 10/30/02
Director, Department of Analytical and Environmental Chemistry

MICHAEL G. MACNAUGHTON (210) 522-5162 — **DATE** 10/30/02
Vice President, Chemistry and Chemical Engineering Division

CHRISTOPHER HOBSON (210) 522-5838 — **DATE** 10/30/02
Quality Assurance Engineer

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PERFORMANCE OF CHEMICAL ANALYSES FOR COMMERCIAL NUCLEAR POWER PLANTS WITHIN THE DEPARTMENT OF ANALYTICAL AND ENVIRONMENTAL CHEMISTRY

1.0 INTRODUCTION

This Quality Project Plan (QPP) defines the Quality Assurance (QA) program requirements for personnel providing the chemical analyses for commercial nuclear power plants. Southwest Research Institute (SwRI) ***Program Quality Plan (PQP-Nuclear)***, *Nuclear Services* shall implement the QA requirements. Project activities controlled by the PQP-Nuclear shall be accomplished as specified by the appropriate sections of **01-QAP-004**, *Quality Assurance Plan for Analytical and Environmental Services* and/or nationally recognized testing methods as specified on individual purchase orders. This QPP shall be applied to all projects initiated for nuclear utilities in the Department of Analytical and Environmental Chemistry. If, as a result of complexity, duration, or other factors, it is determined that a unique, project-specific quality plan is required, the project QAE shall notify the Project Manager and a project-specific quality plan shall be generated in accordance with **SOP-01-5.2**, *Preparation and Revision of Plans*.

2.0 SCOPE

This Quality Project Plan shall be applied to the chemical analyses performed for commercial nuclear power plants by the Department of Analytical and Environmental Chemistry within the Chemistry and Chemical Engineering Division. Although the majority of the work performed for nuclear facilities resides within the Department of Analytical and Environmental Chemistry, other departments within the division may utilize this Quality Project Plan as deemed necessary when nuclear projects are conducted.

3.0 REFERENCES

3.1 *SwRI Quality System Manual – 2000*

3.2 *10 CFR 50, Appendix B, ASME NQA-1*

3.3 *SwRI Program Quality Plan (PQP-Nuclear), Nuclear Services*

3.4 01-QAP-004, *Quality Assurance Plan for Analytical and Environmental Services*

4.0 APPLICABLE SECTIONS OF SwRI PROGRAM QUALITY PLAN (PQP-NUCLEAR)

4.1 Indoctrination and Training

4.1.1 Personnel performing duties affecting quality shall receive quality training to the *SwRI Program Quality Plan (PQP-Nuclear), Nuclear Services* prior to performing any work on projects for nuclear utilities. Institute Quality Systems (IQS) personnel shall perform this training and documentation shall be evident in the personnel training files maintained in Division Quality Assurance.

4.1.2 Indoctrination and training of personnel shall be conducted in accordance with **SOP-01-18.1**, *Qualification and Training*.

4.2 Qualification of Personnel

4.2.1 Testing personnel shall be designated as qualified to perform applicable project activities as specified in **SOP-01-18.1**, *Qualification and Training*.

4.2.2 During the performance of each testing process, testing personnel shall have access to the necessary documented procedures, i.e., QPP, QAP, Work Order, Division Quality System Standard Operating Procedures (SOPs), and applicable test/analytical procedures (TAPs) available for ready reference.

4.2.3 Any person who has not performed testing activities associated with any particular method being used for nuclear utilities projects for a period of one year shall be reevaluated prior to the conduct of the test.

4.2.4 Quality Assurance personnel witnessing the testing process for nuclear utilities shall have documented evidence of qualifications maintained by Institute Quality Systems.

4.3 Design Control

Not applicable to activities conducted within the Department of Analytical and Environmental Chemistry.

4.4 Right of Access

4.4.1 Procurement documents shall provide for access to the suppliers' facilities and records for surveillance, inspection, or audit by SwRI and clients.

4.4.2 Where appropriate, quality clause **Q32** shall be noted on the procurement documents to indicate that right of access for inspection and surveillance of activities associated with the order shall be afforded to SwRI and clients.

4.5 Control of Supplier-Generated Documents

4.5.1 Client documents shall be controlled in accordance with procedures under **SOP-01-5.0**, *Document and Data Control*, depending on the type of document supplied. These procedures provide the requirements for the preparation, review, approval, issue, distribution, and revision of documents controlled by the Chemistry and Chemical Engineering Division.

4.5.2 Documents may be controlled as Plans or Work Instructions and shall be accessible through the Division Intranet link, ***Contract Requirements*** as PDF files.

4.5.3 Nationally recognized test methods shall be of the most current issue or as specified in the purchase order. Work orders shall identify the applicable test methods to be used on the nuclear project.

4.6 Acceptance of Services Only

Not applicable to activities conducted within the Department of Analytical and Environmental Chemistry.

4.7 Commercial Grade Items

4.7.1 Where an item is to be incorporated into a test or deliverable to a client, and that item is not subject to design or specification requirements that are unique to nuclear facilities, used in applications other then nuclear facilities, and procured from the supplier on the specifications set forth in the manufacturers' published product and description, the item shall be considered "commercial grade".

4.7.2 Chemical reagents and standards used for testing purposes shall be ordered to specific chemical grades and certificates of analysis shall be required with each lot.

4.7.3 Controls for procurement planning, supplier selection, supplier performance evaluation, and acceptance of procured items and services other than chemical reagents and standards shall be as identified in **SOP-01-6.1**, *Purchasing*, and any referenced document within that procedure.

4.7.4 Receipt inspection of chemical reagents, standards, and test items for use on nuclear safety-related projects shall be performed by department personnel and documented on the *SwRI Receipt Traveler* or **FRM-109**, *Item Receipt Report*, as specified in **SOP-01-10.1**, *Inspection and Test Conduct*. Any discrepancy such as a damaged container or container label shall be documented on the form and the client shall be contacted for disposition.

4.7.5 Prior or acceptance of a commercial grade item, the receipt inspection shall determine the following:

(a) Damage was not sustained during shipment;

(b) The item has satisfied the specified acceptance criteria; and

(c) Specified documentation, as applicable to the item, was received and is acceptable.

4.7.6 Receipt inspection of chemical reagents and standards shall also consist of verification of chemical type, grade, container integrity, certificate of analysis, and shelf life, where applicable. Upon acceptance of chemical reagents and standards, the containers shall be labeled with the following:

(a) Chemical name;

(b) Chemical grade;

(c) Lot code;

(d) Date received; and

(e) Shelf life, when applicable.

4.7.7 Expired shelf life items shall not be used for testing purposes.

4.7.8 Lot codes of chemical reagents and standards used during equipment standardization and testing shall be recorded on the individual testing data sheets to provide traceability.

4.7.9 Samples supplied to SwRI for testing shall be received by the Sample Custodian and logged into the laboratory logbook. Sample documentation and sample custody shall be maintained in accordance with **TAP-01-0407-001**, *Sample Receipt and Login*, and **TAP-01-0407-035**, *Sample/Extract Storage and Custody*.

4.7.10 Samples supplied to SwRI for testing shall be labeled with the following:

(a) Sample control number;

(b) Purchase order number;

(c) Purchase order line item number, as applicable;

(d) Work order number;

(e) Nuclear QA label; and

(f) Sample retention date, when applicable.

4.7.11 In the event that samples are damaged upon receipt, a ***Sample Discrepancy Record*** shall be generated from the Division Intranet.

4.7.12 The testing work order shall list the project number, tests required, test methods required, and shall be labeled *Nuclear Quality*.

4.7.13 Identification and traceability shall be maintained in accordance with **SOP-01-8.1**, *Item Identification and Traceability*.

4.8 Inspection

4.8.1 Inspection for acceptance shall be performed by qualified persons other than those who conduct or directly supervise the work being inspected.

4.8.2 Institute Quality System (IQS) personnel shall perform surveillance activities as required to ensure compliance with the contract and this Quality Project Plan. Specific areas in which IQS may perform surveillance activities include, but are not limited to, the following:

(a) Receiving inspection and labeling of chemical reagents, standards, and testing samples;

(b) Testing processes;

(c) Calibration and major equipment;

(d) Sample and record retention; and

(e) Test records.

4.9 Inspection and Testing

4.9.1 Required tests for acceptance shall be conducted under appropriate environmental conditions using the tools and equipment necessary to conduct the test in a manner to fulfill test requirements and acceptance criteria.

4.9.2 Tests shall be conducted, controlled, and verified in accordance with **SOP-01-10.1**, *Inspection and Test Conduct*.

4.9.3 Controls for measuring and test equipment shall be as specified in **SOP-01-11.1**, *Control of Measuring and Test Equipment*.

4.9.4 Controls for identification, segregation, reporting, and resolution of nonconforming items and conditions shall be as specified in **SOP-01-13.1**, *Nonconformance Reporting*.

4.10 Handling, Storage, Packaging, Preservation, and Delivery

4.10.1 Controls for handling, storage, packaging, preservation, and delivery of items are identified in **SOP-01-15.1**, *Handling, Storage, Packaging, Preservation, and Delivery of Items*.

4.10.2 Samples specified on the purchase order to be returned to the client shall be prepared and packaged as specified on the purchase order. Each package shall be marked legibly and indelibly with the purchase order/release number and line item number(s) relevant to the package.

4.11 Quality Assurance Records

4.11.1 Quality assurance records shall furnish documentary evidence that items or activities meet specified quality requirements. Documents that ensure this evidence include **TAP-01-0407-014**, *Inventory of Case File Purges*, and **SOP-01-16.1**, *Storage and Maintenance of Quality Records*. These documents and this QPP ensure that QA records shall be legible, identifiable, retrievable, and maintained in dual storage.

4.11.2 Records shall be traceable to associated items and activities and shall accurately reflect the work accomplished or information required.

4.11.3 Documents shall be considered valid records only if stamped, initialed or signed and dated by authorized personnel or otherwise authenticated.

4.11.4 Records of test analyses performed by the Department of Analytical and Environmental Chemistry are classified as *nonpermanent* and shall be retained for a minimum of five years. Nonpermanent records are those required to show evidence that an activity was performed in accordance with the applicable requirements, but need not be retained for the life of the item. Based on the use of the final data, the client shall be responsible for determining and implementing permanent storage requirements.

4.11.5 In order to satisfy duplicate storage requirements, one copy of the QA record shall maintained by the Project Manager in Building 70 and a separate copy shall be maintained in the Division Quality Assurance Archives in Building 201. Storage requirements shall be as stated in **SOP-01-16.1**, *Storage and Maintenance of Quality Records*, to ensure protection against the risk of damage or destruction.

4.12 10 CFR, Part 21

4.12.1 SwRI procurement documents shall include requirements for reporting and approving disposition of supplier nonconformances and, when required, compliance to 10 CFR, Part 21.

4.12.2 The Manager of Institute Quality Assurance or Director of Institute Quality Systems shall determine if a nonconforming condition is reportable under 10 CFR, Part 21, and initiate reporting and condition in accordance with the SwRI Operating Policies and Procedures (OPP). Safety hazards or defects that could create a substantial safety hazard shall be reported. Substantial safety hazard means a loss of safety function to the extent that there is a major reduction in the degree of protection provided to public health and safety.

4.13 Certified Test Report

The Project Manager and Institute Quality Assurance Manager as complying with all contractual requirements shall certify test reports. The certified test report shall reference the purchase order/release number, the test methods performed, and the purchase order/release line item number.

4.14 Valid Documents List

The Department of Analytical and Environmental Chemistry work order shall specify all applicable documents and appropriate document revision level for each document. The work order shall then serve as the Valid Documents List (VDL) for each individual project.

5.0 HISTORY OF REVISIONS

Revision 4
Title of document changed from the Standard Project Quality Plan *SPQP-CH/AN* to Quality Project Plan, *QPP-015*
Extensive revision to comply with Project Quality Plan PQP-Nuclear, *Nuclear Services*, which replaces SwRI NQAPM, *Nuclear Quality Assurance Program Manual*.

010093

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

Chain of Custody/Login Paperwork

5319

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/ Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other: _____

SwRI Contact: Mike Dunnn

Analyses Requested

DIV. 20 SRR #24329
PROJECT #06002.01.071
CASE #CNWRA
VTSR: 5/20/03 14:05

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP Include Si	Uranium by ICP/MS						20 cpm	Intact
URSD-OA-1	5-20-03	1000	W		1	✓	✓						✓	✓
URSD-OA-2	"	"	"		1	✓	✓						✓	✓
URSD-OA-3	"	"	"		1	✓	✓						✓	✓
URSD-OA-4	"	"	"		1	✓	✓						✓	✓
URSD-OA-5	"	"	"		1	✓	✓						✓	✓
URSD-OA-6	"	"	"		1	✓	✓						✓	✓
URSD-OA-7	"	"	"		1	✓	✓						✓	✓
URSD-OA-8	"	"	"		1	✓	✓						✓	✓
URSD-OA-9	"	"	"		1	✓	✓						✓	✓
URSD-OA-10	"	"	"		1	✓	✓						✓	✓

REMARKS
Preservation
- a = HCl to pH <2
- b = HNO_3 to pH <2
- c = H_2SO_4 to pH <2
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

POC - Jim Prikryl x5667

Nuclear Safety related - use appropriate QA procedures

20.06002.01.071

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 22°C
Therm #: 026

Comments:
325/300

	Date	Time
Relinquished by (Print/Signature): James D. Prikryl	5/20/03	1405
Received by (Print/Signature):		
Relinquished by (Print/Signature)		
Received by (Print/Signature)		
Relinquished by (Print/Signature)		

SwRI Project#:
Received by SwRI Lab: (Signature): [signature]
Date: 5/20/03 Time: 1405
Samples Disposed: Date / Time
Samples Disposed by:

010094

5319

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/ Address: Jim Prikryl
CNWRA, Div. 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other:

SwRI Contact: Mike Damann

Analyses Requested

DIV. 20 SRR #24329
PROJECT #06002.01.071
CASE #CNWRA
VTSR: 5/20/03 14:05

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP Include Si	Uranium by ICP/MS					20 cpm	Intact
URSD-OB-1	5/20/03	1000	W		1	✓	✓						
URSD-OB-2					1	✓	✓						
URSD-OB-3					1	✓	✓						
URSD-OB-4					1	✓	✓						
URSD-OB-5					1	✓	✓						
URSD-OB-6					1	✓	✓						
URSD-OB-7					1	✓	✓						
URSD-OB-8					1	✓	✓						
URSD-OB-9					1	✓	✓						
URSD-OB-10					1	✓	✓						

REMARKS

Preservation
- a = HCl to pH <2
- b = HNO_3 to pH <2
- c = H_2SO_4 to pH <2
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

POC - Jim Prikryl
x5667
Nuclear safety related - use appropriate QA procedures
20.06002.01.071

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- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 22°C
Therm #: 026

Comments:
325/301

	Date	Time
Relinquished by (Print/Signature): James D. Prikryl	5/20/03	1405
Received by (Print/Signature):		
Relinquished by (Print/Signature):		
Received by (Print/Signature):		
Relinquished by (Print/Signature):		

SwRI Project#:
Received by SwRI Lab: (Signature)
Date: 5/20/03 Time: 1405
Samples Disposed: Date / Time
Samples Disposed by:

010095

5319

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other: _____

SwRI Contact: Mike Dumann

Analyses Requested

DIV. 20 SRR #24329
PROJECT #06002.01.071
CASE #CNWRA
VTSR: 5/20/03 14:05

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP include Si	Uranium by ICPMS					20 cpm	intact
URSD-7A-1	5/20/03	1000	W		1	✓	✓						
URSD-7A-2					1	✓	✓						
URSD-7A-3					1	✓	✓						
URSD-7A-4					1	✓	✓						
URSD-7A-5					1	✓	✓						
URSD-7A-6					1	✓	✓						
URSD-7A-7					1	✓	✓						
URSD-7A-8					1	✓	✓						
URSD-7A-9					1	✓	✓						
URSD-7A-10	↓	↓	↓		1	✓	✓					↓	↓

REMARKS
Preservation
- **a** = HCl to pH <2
- **b** = HNO_3 to pH <2
- **c** = H_2SO_4 to pH <2
- **d** = NaOH to pH >12
- **e** = Cool (4°C±2°C)
- **f** = Other (specify)

POC Jim Prikryl x5667

Nuclear safety related - use appropriate QA procedures

20.06002.01.071

Matrix Types:
- **A** – Air
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- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 22°C Therm #: 026

Comments:
325/301

	Date	Time
Relinquished by (Print/Signature): James O. Pyle	5/20/03	1405
Received by (Print/Signature):		
Relinquished by (Print/Signature):		
Received by (Print/Signature):		
Relinquished by (Print/Signature):		

SwRI Project#:

Received by SwRI Lab: (Signature)

Date	Time
5/20/03	1405

Samples Disposed:

Date	Time

Samples Disposed by:

010086

5319

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Pickrell
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other: _____

SwRI Contact: Mike Damann

Analyses Requested

DIV. 20 SRR #24329
PROJECT #06002.01.071
CASE #CNWRA
VTSR: 5/20/03 14:05

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP include Si	Uranium by ICP/MS						20 cpm	intact
URSD-7B-1	5/20/03	1000	W		1	✓	✓							
URSD-7B-2					1	✓	✓							
URSD-7B-3					1	✓	✓							
URSD-7B-4					1	✓	✓							
URSD-7B-5					1	✓	✓							
URSD-7B-6					1	✓	✓							
URSD-7B-7					1	✓	✓							
URSD-7B-8					1	✓	✓							
URSD-7B-9					1	✓	✓							
URSD-7B-10					1	✓	✓							

REMARKS

Preservation
- **a** = HCl to pH <2
- **b** = HNO_3 to pH <2
- **c** = H_2SO_4 to pH <2
- **d** = NaOH to pH >12
- **e** = Cool (4°C±2°C)
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POC Jim Pickrell x5667

Nuclear safety related - use appropriate QA procedures

20.06002.01.071

Matrix Types:
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Temp: 22°C

Therm #: 026

Comments:
325/301

	Date	Time
Relinquished by (Print/Signature): James D. Pickrell	5/20/03	1405
Received by (Print/Signature):	Date	Time
Relinquished by (Print/Signature):	Date	Time
Received by (Print/Signature):	Date	Time
Relinquished by (Print/Signature):	Date	Time

SwRI Project#:

Received by SwRI Lab: (Signature)

Date	Time
5/20/03	1405

Samples Disposed:

Date	Time

Samples Disposed by:

Div 01 COC Form 01-01-001, Rev 4/02

010097

5319

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/ Address: Jim Pridgy
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other: _____

SwRI Contact: Mike Darnell

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP including Si	Uranium by ICP/MS						20 cpm	intact
URSD-1A-1	5/20/03	1000	W		1	✓	✓							
URSD-1A-2					1	✓	✓							
URSD-1A-3					1	✓	✓							
URSD-1A-4					1	✓	✓							
URSD-1A-5					1	✓	✓							
URSD-1A-6					1	✓	✓							
URSD-1A-7					1	✓	✓							
URSD-1A-8					1	✓	✓							

DIV. 20 SRR #24329
PROJECT #06002.01.071
CASE #CNWRA
VTSR: 5/20/03 14:05

REMARKS
Preservation
- a = HCl to pH <2
- b = HNO_3 to pH <2
- c = H_2SO_4 to pH <2
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

POC Jim Pridgy x5567

Nuclear safety related - use appropriate QA procedures

20.06002.01.071

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
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Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
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- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 22°C
Therm #: 026

Comments:
325/303

	Date	Time
Relinquished by (Print/Signature): James O. Pridgy	5/20/03	1405
Received by (Print/Signature):		
Relinquished by (Print/Signature):		
Received by (Print/Signature):		
Relinquished by (Print/Signature):		

SwRI Project#:
Received by SwRI Lab: (Signature)
Date: 20 May 03 Time: 1405
Samples Disposed: Date: Time:
Samples Disposed by:

010098

5319

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/ Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other: _____

SwRI Contact: Mike Damanow

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP include Si	Uranium by ICP/MS						20 cpm	in fact.
UMD-0A	5/20/03	1000	W		1	✓	✓						↓	↓
UMD-0B	↓	↓	↓		1	✓	✓							
UMD-7A					1	✓	✓							
UMD-7B					1	✓	✓							

DIV. 20 SRR #24329
PROJECT #06002.01.071
CASE #CNWRA
VTSR: 5/20/03 14:05

REMARKS
Preservation
- **a** = HCl to pH <2
- **b** = HNO_3 to pH <2
- **c** = H_2SO_4 to pH <2
- **d** = NaOH to pH >12
- **e** = Cool (4°C±2°C)
- **f** = Other (specify)

Fax Jim Prikryl
x5567

Nuclear safety related - use appropriate QA procedures.

20.06002.01.071

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 22°C
Therm #: 026

Comments:
325/298

	Date	Time
Relinquished by (Print/Signature) James D. Prikryl	5/20/03	1405
Received by (Print/Signature)		
Relinquished by (Print/Signature)		
Received by (Print/Signature)		
Relinquished by (Print/Signature)		

SwRI Project#:

Received by SwRI Lab: (Signature)

Date: 5/20/03 Time: 1405

Samples Disposed: Date / Time

Samples Disposed by:

0100099

SAMPLE LOG-IN SHEET

010100

Lab Name: Southwest Research Institute

Received By (Print Name): Dino Roman

Log-in Date: 05/20/2003

Received By (Signature): Dino Roman

Case Number: CNWRA

Sample Delivery Group No.

SAS Number: N/A

Remarks: 06002.01.071

1. Custody Seal(s)	Present/Absent Intact/Broken	
2. Custody Seal Nos.	N/A	
3. Chain-of Custody Records	Present/Absent*	
4. Traffic Reports or Packing Lists	Present/Absent	
5. Airbill	Airbill/Sticker Present/Absent*	
6. Airbill No.	HAND DELIVERED	
7. Sample Tags	Present/Absent*	
Sample Tag Numbers	Listed/Not listed on Chain of Custody	
8. Sample Condition	Intact/Broken*/Leaking	
9. Cooler Temperature	22.0C	
10. Does Information on custody records, traffic reports, and sample tags agree?	Yes/No*	
11. Date Received at Lab	05/20/2003	
12. Time Received	14:05:00	

EPA Sample #	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc
UMD-0A	None	226202	Intact
UMD-0B	None	226203	Intact
UMD-7A	None	226204	Intact
UMD-7B	None	226205	Intact
URSD-0A-1	None	226206	Intact
URSD-0A-10	None	226207	Intact
URSD-0A-2	None	226208	Intact
URSD-0A-3	None	226209	Intact
URSD-0A-4	None	226210	Intact
URSD-0A-5	None	226211	Intact
URSD-0A-6	None	226212	Intact
URSD-0A-7	None	226213	Intact
URSD-0A-8	None	226214	Intact
URSD-0A-9	None	226215	Intact
URSD-0B-1	None	226216	Intact
URSD-0B-10	None	226217	Intact
URSD-0B-2	None	226218	Intact
URSD-0B-3	None	226219	Intact
URSD-0B-4	None	226220	Intact
URSD-0B-5	None	226221	Intact
URSD-0B-6	None	226222	Intact
URSD-0B-7	None	226223	Intact
URSD-0B-8	None	226224	Intact

Sample Transfer

Fraction	Fraction
Area #	Area #
By DR	By
On 5/20/03	On 5/20/03

* Contact SMO and attach record of resolution

Reviewed By: CYNTHIA A. SANCEDA

Date: 05/22/2003

Logbook No.: Sample Receipt (24329)

Logbook Page No.: 4712 (Sec 3, 45 of 5)

SAMPLE LOG-IN SHEET

010101

Lab Name: Southwest Research Institute

Received By (Print Name): Dino Roman

Log-in Date: 05/20/2003

Received By (Signature): Dino Roman

Case Number: CNWRA

Sample Delivery Group No.

SAS Number: N/A

Remarks: 06002.01.071

1. Custody Seal(s)	Present/Absent* Intact/Broken	
2. Custody Seal Nos.	N/A	
3. Chain-of Custody Records	Present/Absent*	
4. Traffic Reports or Packing Lists	Present/Absent*	
5. Airbill	Airbill/Sticker Present/Absent*	
6. Airbill No.	HAND DELIVERED	
7. Sample Tags	Present/Absent*	
Sample Tag Numbers	Listed/Not listed on Chain of Custody	
8. Sample Condition	Intact/Broken*/Leaking	
9. Cooler Temperature	22.0C	
10. Does Information on custody records, traffic reports, and sample tags agree?	Yes/No*	
11. Date Received at Lab	05/20/2003	
12. Time Received	14:05:00	

EPA Sample #	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc
URSD-0B-9	None	226225	Intact
URSD-1A-1	None	226226	Intact
URSD-1A-2	None	226227	Intact
URSD-1A-3	None	226228	Intact
URSD-1A-4	None	226229	Intact
URSD-1A-5	None	226230	Intact
URSD-1A-6	None	226231	Intact
URSD-1A-7	None	226232	Intact
URSD-1A-8	None	226233	Intact
URSD-7A-1	None	226234	Intact
URSD-7A-10	None	226235	Intact
URSD-7A-2	None	226236	Intact
URSD-7A-3	None	226237	Intact
URSD-7A-4	None	226238	Intact
URSD-7A-5	None	226239	Intact
URSD-7A-6	None	226240	Intact
URSD-7A-7	None	226241	Intact
URSD-7A-8	None	226242	Intact
URSD-7A-9	None	226243	Intact
URSD-7B-1	None	226244	Intact
URSD-7B-10	None	226245	Intact
URSD-7B-2	None	226246	Intact
URSD-7B-3	None	226247	Intact

Sample Transfer

Fraction	Fraction
Area #	Area # 1140
By DR	By
On 5/20/03	On 5/20/03

* Contact SMO and attach record of resolution

Reviewed By: CYNTHIA A. SANCEDA

Date: 05/22/2003

Logbook No.: Sample Receipt (24329)

Logbook Page No.: 4712 (Sec 3,4 of)

SAMPLE LOG-IN SHEET

Lab Name: Southwest Research Institute	Page 3 of 3 010102
Received By (Print Name): Dino Romah	Log-in Date: 05/20/2003
Received By (Signature): Di R	
Case Number: CNWRA	Sample Delivery Group No.
SAS Number: N/A	
Remarks: 06002.01.071	

1.	Custody Seal(s)	Present/Absent* Intact/Broken
2.	Custody Seal Nos.	N/A
3.	Chain-of Custody Records	Present/Absent*
4.	Traffic Reports or Packing Lists	Present/Absent*
5.	Airbill	Airbill/Sticker Present/Absent*
6.	Airbill No.	HAND DELIVERED
7.	Sample Tags	Present/Absent*
	Sample Tag Numbers	Listed/Not listed on Chain of Custody
8.	Sample Condition	Intact/Broken*/ Leaking
9.	Cooler Temperature	22.0C
10.	Does Information on custody records, traffic reports, and sample tags agree?	Yes/No*
11.	Date Received at Lab	05/20/2003
12.	Time Received	14:05:00

EPA Sample #	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc
URSD-7B-4	None	226248	Intact
URSD-7B-5	None	226249	Intact
URSD-7B-6	None	226250	Intact
URSD-7B-7	None	226251	Intact
URSD-7B-8	None	226252	Intact
URSD-7B-9	None	226253	Intact

Sample Transfer

Fraction	Fraction
Area #	Area #
By DR	By 5/20/03
On 5/20/03	On

* Contact SMO and attach record of resolution

Reviewed By: Cynthia A. Sauceda	Logbook No.: Sample Receipt (24329)
Date: 05/22/2003	Logbook Page No.: 4712 (Sec 3,4 of)

FORM DC-1

OLMO4.2

010103

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

Copies of Login Book

Sample Login Book

May 20, 2003

SwRI Login Area
Division 1

Sample Receipt: 24327	Project: 06391.02.00X	Client: Public Ctr. for
VTSR Date: May 20, 2003	VTSR Time: 11:00:00	Manager: TAN, CK

System ID	Customer Sample ID	Matrix
226194	134 Hollenback	Cactus
226195	331 Lyell	Cactus
226196	847 Division	Cactus
226197	862 Division	Cactus

Sample Receipt: 24328	Project: 01.01608.20X	Client: ALLIED SIGNAL
VTSR Date: May 20, 2003	VTSR Time: 09:15:00	Manager: SUN, GANG

System ID	Customer Sample ID	Matrix
226198	0305160813	Water
226199	0305160815	Water
226200	0305191017	Water
226201	0305191019	Water

Sample Receipt: 24329	Project: 06002.01.071	Client: DIV 20
VTSR Date: May 20, 2003	VTSR Time: 14:05:00	Manager: DAMMANN, MIKE

System ID	Customer Sample ID	Matrix
226202	UMD-0A	Water
226203	UMD-0B	Water
226204	UMD-7A	Water
226205	UMD-7B	Water
226206	URSD-0A-1	Water
226207	URSD-0A-10	Water
226208	URSD-0A-2	Water
226209	URSD-0A-3	Water
226210	URSD-0A-4	Water
226211	URSD-0A-5	Water
226212	URSD-0A-6	Water
226213	URSD-0A-7	Water
226214	URSD-0A-8	Water

Sample Login Book

May 20, 2003

SwRI Login Area
Division 1

Sample Receipt: 24329	Project: 06002.01.071	Client: DIV 20
VTSR Date: May 20, 2003	VTSR Time: 14:05:00	Manager: DAMMANN, MIKE

System ID	Customer Sample ID	Matrix
226215	URSD-0A-9	Water
226216	URSD-0B-1	Water
226217	URSD-0B-10	Water
226218	URSD-0B-2	Water
226219	URSD-0B-3	Water
226220	URSD-0B-4	Water
226221	URSD-0B-5	Water
226222	URSD-0B-6	Water
226223	URSD-0B-7	Water
226224	URSD-0B-8	Water
226225	URSD-0B-9	Water
226226	URSD-1A-1	Water
226227	URSD-1A-2	Water
226228	URSD-1A-3	Water
226229	URSD-1A-4	Water
226230	URSD-1A-5	Water
226231	URSD-1A-6	Water
226232	URSD-1A-7	Water
226233	URSD-1A-8	Water
226234	URSD-7A-1	Water
226235	URSD-7A-10	Water
226236	URSD-7A-2	Water
226237	URSD-7A-3	Water
226238	URSD-7A-4	Water
226239	URSD-7A-5	Water
226240	URSD-7A-6	Water
226241	URSD-7A-7	Water
226242	URSD-7A-8	Water
226243	URSD-7A-9	Water
226244	URSD-7B-1	Water
226245	URSD-7B-10	Water
226246	URSD-7B-2	Water
226247	URSD-7B-3	Water

Sample Login Book

May 20, 2003

010106

SwRI Login Area
Division 1

Sample Receipt: 24329	Project: 06002.01.071	Client: DIV 20
VTSR Date: May 20, 2003	VTSR Time: 14:05:00	Manager: DAMMANN, MIKE

System ID	Customer Sample ID	Matrix
226248	URSD-7B-4	Water
226249	URSD-7B-5	Water
226250	URSD-7B-6	Water
226251	URSD-7B-7	Water
226252	URSD-7B-8	Water
226253	URSD-7B-9	Water

Number of samples for today: 90

Number of Containers for today: 95

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

RAW DATA

Trace Metals Reagent Logbook

010108

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 02 020

Reagent I.D.:	Preparation Description:	Prep Date:	Exp Date:	Initials:
RLB-02-020-01	4% $KMNO_4$ / 10% H_2SO_4 Soln	5-27-03	6-10-03	Jed
↓	20g $KMNO_4$ inorg # 4005	↓	↓	↓
	50mL H_2SO_4 inorg # 2560			
	F.V. 500mL (500 Nalgene Bottle)			
RLB-02-020-02	4% $KMNO_4$ / 10% H_2SO_4 Soln	5-28-03	6-11-03	Jed
↓	40g $KMNO_4$ inorg # 4005	↓	↓	↓
	100mL H_2SO_4 inorg # 2560			
	F.V 1 Liter (Nalgene bottle)			Jed
RLB-02-020-03	Aqua Regia	5/28/03	AU	LW
↓	50 mL HNO_3 #4093 +			↓
	150 mL HCl #4078 (Ethyl AR prep 53-083)			
RLB-02-020-04	1% HNO_3 / 5% HCL	5-29-03	6-29-03	Jed
↓	5mL HNO_3 # 4093	↓	↓	↓
	25mL HCL inorg # 4078			
	add di H_2O to 500 nalgene bottle, add			
	acid & F.V. to 500 mLs			
RLB-02-020-05	0.1 N HNO_3 Solution	5-29-03	6-29-03	Jed
↓	to a 500 mL Nalgene bottle add	↓	↓	↓
	di water, add 1890 mL HNO_3			
	inorg # 4092 F.V. to 300 mL			
	50% HNO_3			
RLB-02-020-06	to a 1500 mL Nalgen bottle add di	5-29-03	6-29-03	Jed
↓	water, 50mL HNO_3 inorg # 4092, F.V.	↓	↓	↓
	to 100mL with di water			

Trace Metals Reagent Logbook 010109

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 02 022

Reagent I.D.:	Preparation Description:	Prep Date:	Exp Date:	Initials:
RLB-02-022-01	1% HNO_3/5% HCL	6-9-03	7-9-03	JW
↓	to a 250mL Nalgene bottle add di H_2O, add 2.5mL HNO_3 inorg #4094, add 12.5mL HCL inorg #4077, F.V. to 250mL w/di H_2O	↓	↓	↓
RLB-02-022-02	1% HNO_3	6-10-03	7-10-03	JW
↓	add di water to a 500mL Nalgene bottle, add 5mL HNO_3 inorg # 4095 F.V. to 500mLs with di water	↓	↓	↓
RLB-02-022-03	Pd + $M_3(NO_3)$	6-10-03	6-10-04	BV
	0.1612 G Pd #2192	↓	↓	↓
	0.108 G $M_3(HNO_3)$ #2610			
	0.5mL HNO_3 #4095 → 50mL			
RLB-02-022-04	10% HNO_3, 200mL FV	6/13/03	AR	JW
	20mL HNO_3 #4095 (for Amer Cable 53-110)			
RLB-02-022-05	Aqua Regia BJC:53-113	6/13/03	AR	JW
	55mL HNO_3			
	165mL HCl → FV = 220mL	AR		
RLB-02-022-06	1% HNO_3	6-17-03	AR	JW
↓	add di water to 500mL Nalgene bottle, add 5mL HNO_3 inorg #4096, FV. to 500mLs	↓	↓	↓

Trace Metals Reagent Logbook 010110

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 02 023

Reagent I.D.:	Preparation Description:	Prep Date:	Exp Date:	Initials:
RLB-02-023-01	1% HNO_3	6-17-03	~~6~~ 7-17-03 JW 6-17-03	JW
↓	add di water to a 500mL Nalgene	↓	↓	↓
	bottle, add 5mL HNO_3 inorg # 4096,			
	F.V. to 500mL			
RLB-02-023-02	Aqua Regia	6-18-03	6-19-03	JW
↓	add 8mL HNO_3 to 60mL Nalgene bottle	6-18-03	↓	↓
	inorg # 4096, add 24mL HCL to	↓		
	same bottle - inorg # 4081 F.V. is 32mL			
RLB-02-023-03	10% HNO_3 (53-129) Div 8	6/18/03	Au	WW
	10mL HNO_3 # 4096			
	90mL di H_2O / 100 FV			
RLB-02-023-04	5% Potassium Permanganate	6/18/03	6/18/04	BV
	150G to 3 Liters Reg. water	↓	↓	↓
	Inorg. # 3663			
RLB-02-023-05	10% HNO_3	6/23/03	—	WW
	10mL HNO_3 + 90mL di H_2O			
RLB-02-023-06	5% HNO_3	6-24-03	7-24-03	JW
↓	add di water to 500mL Nalgene	↓	↓	↓
	bottle add 5mL HNO_3 ~~to~~ JW 6-24-03 inorg # 4096			
	F.V. to 500mL with di water			

BOOK/ PAGE 14 140 010111

PE ELAN 5000 INDUCTIVELY COUPLED PLASMA-MASS SPECTROMETER DAILY LOG

ANALYST C. Ordeña DATE 6/12/03

RF POWER 1000 Watts

BASE VACUUM PRESSURE 4.95×10^{-7} TORR

RUNNING VACUUM PRESSURE 1.39×10^{-6} TORR

NEBULIZER FLOW RATE 0.996

SETUP INTENSITIES cps	
Mg24	7491
Rh103	25500
Pb208	15400

ION OPTICS LENSES		
LENS	NEGATIVE	POSITIVE
B	65	45
P	45	47
E1	15	21
S2	45	43

CLIENT	PROJECT #	WO#	COMMENTS
DLV 20	030520-13	06002.01.071	June 03 - misc 4
		CO	6/12/03

MAINTENANCE and COMMENTS:

MS04 stnd pop 87

REVIEWED BY: Teresa O'Brien DATE: 6/16/03

TITLE Div 01

PROJECT NO. OHD01.113 87

BOOK NO. 02-0406-031

010112 SwRI

Work continued from Page

MS04-087-01 CRI @ 1ppb
Added 1ml S3 (MS04-058-02) and 9ml SØ (MS04-058-01)

MS04-087-02 SØ
Added 1ml HNO_3 #4052 to 100ml vol flask & brought up to mark w/ di H_2O.

MS04-087-03 S1Ø
Added 1ml HNO_3 #4052 and 100µL of ME#2 (#3931) and ME#1 (#3930) to 100ml vol flask & brought up to mark w/ di H_2O.

MS04-087-04 CO 5/14/03 CCV
Added 1ml HNO_3 #4052 and 15µL of CCS-1 #3493 to 100 ml vol flask & brought up to mark w/ di H_2O.

MS04-087-05 CRI @ 1ppb
Added 18 ml SØ MS04-087-02 and 2ml S1Ø MS04-087-03

CO 5/14/03

Work continued to Page

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60605 MADE IN USA

SIGNATURE Carduna DATE 5/14/03

DISCLOSED TO AND UNDERSTOOD BY Teresa Shin DATE WITNESS DATE 6/16/03

Work continued from Page

SwRI

MS04-058-01 U-SD

Added 1ml HNO_3 (#3919) to 100ml vol flask & brought up to mark w/ di H_2O.

MS04-058-02 U-SI

Added 1ml HNO_3 (#3919) and 100 µl ME#2 (#3931) to 100ml vol flask & brought up to mark w/ di H_2O.

MS04-058-03 U-CCV

Added 1ml HNO_3 (#3919) and 15µl CCS-1 (#3493) to 100ml vol flask & brought up to mark w/ di H_2O.

Ethyl Petro 060053.06.007

Soil 01.01446.003

MS04-058-04 Blnk

same as MS04-055-01

MS04-058-05 ICPMS-1234

same as MS04-055-02

CO

3/14/03

Work continued to Page

SIGNATURE C. Orduña DATE 3/14/03

DISCLOSED TO AND UNDERSTOOD BY B___ DATE WITNESS DATE 4/16/03

BOOK/ PAGE 14 150

010114

PE ELAN 5000 INDUCTIVELY COUPLED PLASMA-MASS SPECTROMETER DAILY LOG

ANALYST C Ordeña DATE 6/19/03

RF POWER 1000 Watts

BASE VACUUM PRESSURE 4.90×10^{-7} TORR

RUNNING VACUUM PRESSURE 5.62×10^{-6} TORR

NEBULIZER FLOW RATE 0.978

SETUP INTENSITIES cps		after Volt adj.
Mg24	7211	14100
Rh103	35710	101000
Pb208	17550	57210

ION OPTICS LENSES		
LENS	NEGATIVE	POSITIVE
B	65	49
P	45	55
E1	15	29
S2	45	47

CLIENT	PROJECT #	WO#	COMMENTS
gore	01.01446.003	030602-4	June 03-misc 6
NFT	00232.06.006	030415-6	↓
Div 20	06002.01.071	030520-13	
			CO 6/19/03

MAINTENANCE and COMMENTS:

Voltage was adjusted to maximize intensities. CO 6/19/03 3pm

MS04-110 Std pgs 109

REVIEWED BY: [signature] DATE: 6-25-03

SwRI

MS04-110-01 Blnk
Added 1ml HNO_3 #4096 to 125 ml Nalgene & brought up to FV = 100g w/ di H_2O.

MS04-110-02 ICPMS-1234
Added 1ml HNO_3 #4096 and 100µl of each ME 1 #3930, ME 2 #3931, ME 3 #3932, and ME 4 #3933 to 125 ml Nalgene & brought up to FV = 100g w/ di H_2O.

DIV 120 proj # 06C02

MS04-110-C3 U-S0
Added 1ml HNO_3 #4096 to 100ml vol flask & brought up to mark w/ di H_2O.

MS04-110-04 U-S1
Added 1ml HNO_3 #4096 and 100µl ME #2 #3931 to 100 ml vol flask & brought up to mark w/ di H_2O

MS04-110-05 U-CCV
Added 1ml HNO_3 #4096 and 20µl CCS 1 #3493 to 100 ml vol flask & brought up to mark w/ di H_2O.

MS04-110-06 CR1 @ 1ppb
Added 10 ml U-S0 MS04-110-03 and 2ml U-S1 MS04-110-04

SIGNATURE C Orduña DATE 6/19/03

DISCLOSED TO AND UNDERSTOOD BY | DATE | WITNESS | DATE 6-25-03

BOOK/ PAGE 05 194

010116

SOUTHWEST RESEARCH INSTITUTE

6220 Culebra Rd
San Antonio, Texas 78228

TJA_2 TRACE ICP DAILY LOG

ANALYST _____

DATE 5-29-03

As 189.042 Profile Line

As Intensity: 753.512

PEAK POSITION 1020327

VERNIER POSITION 758

QC PREP DATE:	
CCV/ICV	03E27
CRI	03E15
ICSA	03E19
ICSAB	03E27

STDs PREP DATE:	
CLP_STD1_SC	03E27
CLP_STD2_SC	03014
CLP_STD3_SC	03D01
CLP_STD4_SC	03E13
CLP_STD5_SC	03E05
CLP_STD6_SC	03D01
BLK_SC	03E15

COMMENTS	FILE	CLIENT	WO#	PROJECT NO.	METHOD
30520 13	Daily 49	Div 20	030520-13	06002.01.071	Daiyz S4 035
	Daily 49	Div 20	030520-13	06002.01.071	Daiyz S4 036
	Daily 49	Div 20	030520-13	06002.01.071	Daiyz S4 037

5-29-03

COMMENTS: _____

MAINTENANCE:

REVIEWED BY: Cordura DATE: 6/18/03

BOOK/ PAGE 14 056

010117

SOUTHWEST RESEARCH INSTITUTE®

6220 Culebra Rd
San Antonio, Texas 78228

TJA TRACE ICP DAILY LOG

ANALYST DL DATE 6-9-03

As 189.042 Profile Line As Intensity: 412.229

PEAK POSITION .022917

VERNIER POSITION 296

AUTOSAMPLER Yes X No

QC PREP DATE:	
CCV/ICV	03F08
CRI	03F05
ICSA	05F05
ICSAB	03E27

STDs PREP DATE:	
CLP_STD1_SC	03E27
CLP_STD2_SC	03D1L
CLP_STD3_SC	03001
CLP_STD4_SC	03E13
CLP_STD5_SC	03F05
CLP_STD6_SC	03001
BLK_SC	03F08

COMMENTS	FILE	CLIENT	TO#	PROJECT NO.	METHOD
A0604-8	Daily 28	Div 20	03060A-8	06002.01.081	Daily 1
A052013	Daily 24	Div 20	030520-13	06002.01.071	Daily1 54-056

DL 6-9-03

COMMENTS:

MAINTENANCE:

REVIEWED BY: C. Orduña DATE: 6/13/03

ICP Calibration Blank/ICB/CCB Solution

010118

ID: BLK-03D21

Date Prepared: 4-21-03 Prepared By: [signature]

Make up as needed in 1000ml volumetric flask.

Added ✓ 10 ml HNO3 INORG #: 4014

Added ✓ 50 ml HCL INORG #: 4019

Added ✓ 1000ul of 10000ppm Sc (INORG. VENT.) EXP. Date: ~~10-4-03~~ 10-1-03 OH INORG #: 3683

ICP Calibration Blank/ICB/CCB Solution

ID: BLK- 03030

Date Prepared: 4-30-03 Prepared By: [signature]

Make up as needed in 1000ml volumetric flask.

Added ✓ 10 ml HNO3 INORG #: 4015

Added ✓ 50 ml HCL INORG #: 4020

Added ✓ 1000ul of 10000ppm Sc (INORG. VENT.) EXP. Date: 10-1-03 INORG #: 3683

ICP Calibration Blank/ICB/CCB Solution

ID: BLK-03E15

Date Prepared: 5-15-03 Prepared By: [signature]

Make up as needed in 1000ml volumetric flask.

Added ✓ 10 ml HNO3 INORG #: 4053

Added ✓ 50 ml HCL INORG #: 4021

Added ✓ 1000ul of 10000ppm Sc (INORG. VENT.) EXP. Date: 10-1-03 INORG #: 3683

ICP Calibration Blank/ICB/CCB Solution

ID: BLK-03F04

Date Prepared: 6-4-03 Prepared By: [signature]

Make up as needed in 1000ml volumetric flask.

Added ✓ 10 ml HNO3 INORG #: 4094

Added ✓ 50 ml HCL INORG #: 4079

Added ✓ 1000ul of 10000ppm Sc (INORG. VENT.) EXP. Date: 10-1-03 INORG #: 3683

ICP Calibration Blank/ICB/CCB Solution

010119

ID: BLK- 03406

Date Prepared: 6-8-03 Prepared By: DL

Make up as needed in 1000ml volumetric flask.

Added ✓ 10 ml HNO3 INORG #: 4004

Added ✓ 50 ml HCL INORG #: 4077

Added ✓ 1000ul of 10000ppm Sc (INORG. VENT.) EXP. Date: 10-1-03 INORG #: 3683

ICP Calibration Blank/ICB/CCB Solution

ID: BLK-

Date Prepared:_____ Prepared By:_____

Make up as needed in 1000ml volumetric flask.

Added_____ 10 ml HNO3 INORG #:_____

Added_____ 50 ml HCL INORG #:_____

Added_____ 1000ul of 10000ppm Sc (INORG. VENT.) EXP. Date: _____INORG #:_____

ICP Calibration Blank/ICB/CCB Solution

ID: BLK-

Date Prepared:_____ Prepared By:_____

Make up as needed in 1000ml volumetric flask.

Added_____ 10 ml HNO3 INORG #:_____

Added_____ 50 ml HCL INORG #:_____

Added_____ 1000ul of 10000ppm Sc (INORG. VENT.) EXP. Date: _____INORG #:_____

ICP Calibration Blank/ICB/CCB Solution

ID: BLK-

Date Prepared:_____ Prepared By:_____

Make up as needed in 1000ml volumetric flask.

Added_____ 10 ml HNO3 INORG #:_____

Added_____ 50 ml HCL INORG #:_____

Added_____ 1000ul of 10000ppm Sc (INORG. VENT.) EXP. Date: _____INORG #:_____

ICP ICV/CCV SOLUTION

010120

CCV- 03527

Date Prepared: 5-27-03 Prepared By: DL

HNO3 INORG #: 4092 HCl INORG #: 4078

Make up as needed in 1000ml volumetric flask in 1% HNO3 AND 5% HCl.

Element	Std Conc (ppm)	Amt added	Check	Source	Inorg #	Stock Conc (ppm)	Exp Date
Sc	10	1ml	✓	INORGVENT	3683	10000	10-1-03
B	5	5ml	✓	SPEX	3611	1000	8-15-03
Li	5	5ml	✓	SPEX	4065	1000	5-15-04
Mo	5	5ml	✓	SPEX	4066	1000	5-15-04
P	5	5ml	✓	SPEX	3927	1000	1-15-04
Si	5	5ml	✓	SPEX	3858	1000	12-15-03
Ti	5	5ml	✓	SPEX	3857	1000	12-15-03
Sr	5	5ml	✓	SPEX	3961	1000	2-15-04
Sn	5	5ml	✓	SPEX	3644	1000	8-15-03
Bi	5	5ml	✓	SPEX	3643	1000	8-15-03
La	5	5ml	✓	SPEX	4064	1000	5-15-04
Y	5	5ml	✓	SPEX	4067	1000	5-15-04
Pd	1	1ml	✓	SPEX	3928	1000	1-15-04
S	1	1ml	✓	SPEX	3562	1000	7-15-03
Th	1	1ml	✓	SPEX	3684	1000	9-15-03
U	1	1ml	✓	SPEX	3533	1000	6-30-03
W	1	1ml	✓	SPEX	3646	1000	8-15-03
Zr	5	5ml	✓	SPEX	3648	1000	8-15-03
Na	10	1ml	✓	SPEX	3951	10000	2-15-04
ICV-2A	vary	10ml	✓	SPEX	3773	mix	11-30-03
ICV-2B	vary	1ml	✓	SPEX	3774	mix	11-30-03
ICV-2C	vary	10ml	✓	SPEX	3775	mix	11-30-03

Expiration Date: 6-30-03

ICP ICV/CCV SOLUTION

010121

CCV- 03F06

Date Prepared: 6-4-03 Prepared By: [signature]

HNO3 INORG #: 4014 HCl INORG #: 4077

Make up as needed in 1000ml volumetric flask in 1% HNO3 AND 5% HCl.

Element	Std Conc (ppm)	Amt added	Check	Source	Inorg #	Stock Conc (ppm)	Exp Date
Sc	10	1ml	✓	INORGVENT	3683	10000	10-1-03
B	5	5ml	✓	SPEX	3611	1000	8-15-03
Li	5	5ml	✓	SPEX	4065	1000	5-15-04
Mo	5	5ml	✓	SPEX	4066	1000	5-15-04
P	5	5ml	✓	SPEX	3927	1000	1-15-04
Si	5	5ml	✓	SPEX	3458	1000	12-15-03
Ti	5	5ml	✓	SPEX	3457	1000	12-15-03
Sr	5	5ml	✓	SPEX	3961	1000	2-15-04
Sn	5	5ml	✓	SPEX	3644	1000	8-15-03
Bi	5	5ml	✓	SPEX	3643	1000	8-15-03
La	5	5ml	✓	SPEX	4064	1000	5-15-04
Y	5	5ml	✓	SPEX	4067	1000	5-15-04
Pd	1	1ml	✓	SPEX	3928	1000	1-15-04
S	1	1ml	✓	SPEX	3562	1000	7-15-03
Th	1	1ml	✓	SPEX	3684	1000	9-15-03
U	1	1ml	✓	SPEX	3533	1000	6-30-03
W	1	1ml	✓	SPEX	3646	1000	8-15-03
Zr	5	5ml	✓	SPEX	3648	1000	8-15-03
Na	10	1ml	✓	SPEX	3951	10000	2-15-04
ICV-2A	vary	10ml	✓	SPEX	3773	mix	11-30-03
ICV-2B	vary	1ml	✓	SPEX	3774	mix	11-30-03
ICV-2C	vary	10ml	✓	SPEX	3775	mix	11-30-03

Expiration Date: 6-30-03

ICP Calibration Standards

010122

Date Prepared: 5-27-03 Prepared By: DL

HNO3 INORG #: 4092 HCl INORG #: 4076

Make up as needed in 500 ml volumetric flasks in 1% HNO3 and 5% HCl.

Prepared	Standard Name	Element	Std Conc (ppm)	Added ml	Check	Source	INORG #	Stock Conc (ppm)	Exp Date
5-27-03	STD1- 03E27	Al	50	2.50	✓	INORVENT	3849	10000	9-1-03
		Ca	50	2.50	✓	INORVENT	3900	10000	2-1-04
		Fe	50	2.50	✓	INORVENT	3963	10000	3-1-04
		K	50	2.50	✓	INORVENT	3738	10000	11-1-03
		Mg	25	1.25	✓	INORVENT	3564	10000	8-1-03
		Na	50	2.50	✓	INORVENT	3565	10000	8-1-03
		Li	10	5.00	✓	INORVENT	3736	1000	11-1-03
		Sc	10	0.500	✓	INORVENT	3683	10000	10-1-03
	STD2-	Ba	10	5.00		INORVENT		1000	
		Be	5	2.50		INORVENT		1000	
		Cr	10	5.00		INORVENT		1000	
		Cu	10	5.00		INORVENT		1000	
		Ni	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD3-	Cd	10	5.00		INORVENT		1000	
		Co	10	5.00		INORVENT		1000	
		Mn	10	5.00		INORVENT		1000	
		V	10	5.00		INORVENT		1000	
		Zn	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD4-	Ag	2	1.00		INORVENT		1000	
		As	10	5.00		INORVENT		1000	
		Pb	10	5.00		INORVENT		1000	
		Sb	10	5.00		INORVENT		1000	
		Se	10	5.00		INORVENT		1000	
		TL	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD5-	B	10	5.00		INORVENT		1000	
		Mo	10	5.00		INORVENT		1000	
		P	10	5.00		INORVENT		1000	
		Si	10	5.00		INORVENT		1000	
		Ti	10	5.00		INORVENT		1000	
		Sr	10	5.00		INORVENT		1000	
		Sn	10	5.00		INORVENT		1000	
		Bi	5	2.50		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD6-	La	10	5.00		INORVENT		1000	
		Na	1	0.05		INORVENT		10000	
		Pd	10	5.00		INORVENT		1000	
		S	10	5.00		INORVENT		1000	
		Th	10	5.00		INORVENT		1000	
		U	10	5.00		INORVENT		1000	
		W	5	2.50		INORVENT		1000	
		Y	10	5.00		INORVENT		1000	
		Zr	10	5.00		INORVENT		1000	
		SC	10	0.500		INORVENT		10000	

Expiration Dates:

STD1: **STD4:**

STD2: **STD5:**

STD3: **STD6:**

ICP Calibration Standards

010123

Date Prepared: 4-14-03 Prepared By: DL

HNO3 INORG #: 4017 HCl INORG #: 4017

Make up as needed in 500 ml volumetric flasks in 1% HNO3 and 5% HCl.

Prepared	Standard Name	Element	Std Conc (ppm)	Added ml	Check	Source	INORG #	Stock Conc (ppm)	Exp Date
	STD1-	Al	50	2.50		INORVENT		10000	
		Ca	50	2.50		INORVENT		10000	
		Fe	50	2.50		INORVENT		10000	
		K	50	2.50		INORVENT		10000	
		Mg	25	1.25		INORVENT		10000	
		Na	50	2.50		INORVENT		10000	
		Li	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
4-14-03	STD2- 03014	Ba	10	5.00	✓	INORVENT	3971	1000	3-1-04
		Be	5	2.50	✓	INORVENT	3499	1000	7-1-03
		Cr	10	5.00	✓	INORVENT	3732	1000	11-1-03
		Cu	10	5.00	✓	INORVENT	3955	1000	3-1-04
		Ni	10	5.00	✓	INORVENT	3957	1000	3-1-04
		Sc	10	0.500	✓	INORVENT	3643	10000	10-1-03
	STD3-	Cd	10	5.00		INORVENT		1000	
		Co	10	5.00		INORVENT		1000	
		Mn	10	5.00		INORVENT		1000	
		V	10	5.00		INORVENT		1000	
		Zn	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD4-	Ag	2	1.00		INORVENT		1000	
		As	10	5.00		INORVENT		1000	
		Pb	10	5.00		INORVENT		1000	
		Sb	10	5.00		INORVENT		1000	
		Se	10	5.00		INORVENT		1000	
		TL	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD5-	B	10	5.00		INORVENT		1000	
		Mo	10	5.00		INORVENT		1000	
		P	10	5.00		INORVENT		1000	
		Si	10	5.00		INORVENT		1000	
		Ti	10	5.00		INORVENT		1000	
		Sr	10	5.00		INORVENT		1000	
		Sn	10	5.00		INORVENT		1000	
		Bi	5	2.50		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD6-	La	10	5.00		INORVENT		1000	
		Na	1	0.05		INORVENT		10000	
		Pd	10	5.00		INORVENT		1000	
		S	10	5.00		INORVENT		1000	
		Th	10	5.00		INORVENT		1000	
		U	10	5.00		INORVENT		1000	
		W	5	2.50		INORVENT		1000	
		Y	10	5.00		INORVENT		1000	
		Zr	10	5.00		INORVENT		1000	
		SC	10	0.500		INORVENT		10000	

Expiration Dates:

STD1: **STD4:**

STD2: 7-1-03 **STD5:**

STD3: **STD6:**

ICP Calibration Standards

010124

Date Prepared: 4-1-03 Prepared By: DL

HNO3 INORG #: 3949 4011 HCl INORG #: 3949 3950

Make up as needed in 500 ml volumetric flasks in 1% HNO3 and 5% HCl.

Prepared	Standard Name	Element	Std Conc (ppm)	Added ml	Check	Source	INORG #	Stock Conc (ppm)	Exp Date
	STD1-	Al	50	2.50		INORVENT		10000	
		Ca	50	2.50		INORVENT		10000	
		Fe	50	2.50		INORVENT		10000	
		K	50	2.50		INORVENT		10000	
		Mg	25	1.25		INORVENT		10000	
		Na	50	2.50		INORVENT		10000	
		Li	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD2-	Ba	10	5.00		INORVENT		1000	
		Be	5	2.50		INORVENT		1000	
		Cr	10	5.00		INORVENT		1000	
		Cu	10	5.00		INORVENT		1000	
		Ni	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
A-1-03	STD3- 03001	Cd	10	5.00	✓	INORVENT	3972	1000	3-1-04
		Co	10	5.00	✓	INORVENT	3973	1000	3-1-04
		Mn	10	5.00	✓	INORVENT	3971	1000	2-1-04
		V	10	5.00	✓	INORVENT	3740	1000	11-1-03
		Zn	10	5.00	✓	INORVENT	3741	1000	11-1-03
		Sc	10	0.500	✓	INORVENT	3683	10000	10-1-03
	STD4-	Ag	2	1.00		INORVENT		1000	
		As	10	5.00		INORVENT		1000	
		Pb	10	5.00		INORVENT		1000	
		Sb	10	5.00		INORVENT		1000	
		Se	10	5.00		INORVENT		1000	
		TL	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD5-	B	10	5.00		INORVENT		1000	
		Mo	10	5.00		INORVENT		1000	
		P	10	5.00		INORVENT		1000	
		Si	10	5.00		INORVENT		1000	
		Ti	10	5.00		INORVENT		1000	
		Sr	10	5.00		INORVENT		1000	
		Sn	10	5.00		INORVENT		1000	
		Bi	5	2.50		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
A-1-03	STD6- 03001	La	10	5.00	✓	INORVENT	3650	1000	9-1-03
		Na	1	0.05	✓	INORVENT	3565	10000	8-1-03
		Pd	10	5.00	✓	INORVENT	3964	1000	3-1-04
		S	10	5.00	✓	INORVENT	3759	1000	11-1-03
		Th	10	5.00	✓	INORVENT	3641	1000	10-1-03
		U	10	5.00	✓	INORVENT	3501	1000	7-1-03
		W	5	2.50	✓	INORVENT	3564	1000	8-1-03
		Y	10	5.00	✓	INORVENT	3654	1000	9-1-03
		Zr	10	5.00	✓	INORVENT	3554	1000	5-1-04
		SC	10	0.500	✓	INORVENT	3683	10000	10-1-03

Expiration Dates:

STD1: **STD4:**

STD2: **STD5:**

STD3: 10-3-01 **STD6:** 7-1-03

ICP Calibration Standards

010125

Date Prepared: 5-13-03 Prepared By: JL

HNO3 INORG #: 4052 HCl INORG #: 4021

Make up as needed in 500 ml volumetric flasks in 1% HNO3 and 5% HCl.

Prepared	Standard Name	Element	Std Conc (ppm)	Added ml	Check	Source	INORG #	Stock Conc (ppm)	Exp Date
	STD1-	Al	50	2.50		INORVENT		10000	
		Ca	50	2.50		INORVENT		10000	
		Fe	50	2.50		INORVENT		10000	
		K	50	2.50		INORVENT		10000	
		Mg	25	1.25		INORVENT		10000	
		Na	50	2.50		INORVENT		10000	
		Li	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD2-	Ba	10	5.00		INORVENT		1000	
		Be	5	2.50		INORVENT		1000	
		Cr	10	5.00		INORVENT		1000	
		Cu	10	5.00		INORVENT		1000	
		Ni	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD3-	Cd	10	5.00		INORVENT		1000	
		Co	10	5.00		INORVENT		1000	
		Mn	10	5.00		INORVENT		1000	
		V	10	5.00		INORVENT		1000	
		Zn	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
5-13-03 ~~03K0~~ 03E13	STD4-	Ag	2	1.00	✓	INORVENT	3653	1000	9-1-03
		As	10	5.00	✓	INORVENT	3899	1000	2-1-04
		Pb	10	5.00	✓	INORVENT	3735	1000	11-1-03
		Sb	10	5.00	✓	INORVENT	3953	1000	3-1-04
		Se	10	5.00	✓	INORVENT	3652	1000	9-1-03
		TL	10	5.00	✓	INORVENT	3922	1000	2-1-04
		Sc	10	0.500	✓	INORVENT	3643	10000	10-1-03
	STD5-	B	10	5.00		INORVENT		1000	
		Mo	10	5.00		INORVENT		1000	
		P	10	5.00		INORVENT		1000	
		Si	10	5.00		INORVENT		1000	
		Ti	10	5.00		INORVENT		1000	
		Sr	10	5.00		INORVENT		1000	
		Sn	10	5.00		INORVENT		1000	
		Bi	5	2.50		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD6-	La	10	5.00		INORVENT		1000	
		Na	1	0.05		INORVENT		10000	
		Pd	10	5.00		INORVENT		1000	
		S	10	5.00		INORVENT		1000	
		Th	10	5.00		INORVENT		1000	
		U	10	5.00		INORVENT		1000	
		W	5	2.50		INORVENT		1000	
		Y	10	5.00		INORVENT		1000	
		Zr	10	5.00		INORVENT		1000	
		SC	10	0.500		INORVENT		10000	

Expiration Dates:

STD1: **STD4:** 9-1-03

STD2: **STD5:**

STD3: **STD6:**

ICP Calibration Standards

010126

Date Prepared: 5-5-03 Prepared By: DL

HNO3 INORG #: 4015 HCl INORG #: 4020

Make up as needed in 500 ml volumetric flasks in 1% HNO3 and 5% HCl.

Prepared	Standard Name	Element	Std Conc (ppm)	Added ml	Check	Source	INORG #	Stock Conc (ppm)	Exp Date
	STD1-	Al	50	2.50		INORVENT		10000	
		Ca	50	2.50		INORVENT		10000	
		Fe	50	2.50		INORVENT		10000	
		K	50	2.50		INORVENT		10000	
		Mg	25	1.25		INORVENT		10000	
		Na	50	2.50		INORVENT		10000	
		Li	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD2-	Ba	10	5.00		INORVENT		1000	
		Be	5	2.50		INORVENT		1000	
		Cr	10	5.00		INORVENT		1000	
		Cu	10	5.00		INORVENT		1000	
		Ni	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD3-	Cd	10	5.00		INORVENT		1000	
		Co	10	5.00		INORVENT		1000	
		Mn	10	5.00		INORVENT		1000	
		V	10	5.00		INORVENT		1000	
		Zn	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
	STD4-	Ag	2	1.00		INORVENT		1000	
		As	10	5.00		INORVENT		1000	
		Pb	10	5.00		INORVENT		1000	
		Sb	10	5.00		INORVENT		1000	
		Se	10	5.00		INORVENT		1000	
		TL	10	5.00		INORVENT		1000	
		Sc	10	0.500		INORVENT		10000	
							3954 6-17-03		
5-5-03 03E05 OK	STD5-	B	10	5.00	✓	INORVENT	~~3654~~ DH	1000	3-1-04
		Mo	10	5.00	✓	INORVENT	3956	1000	3-1-04
		P	10	5.00	✓	INORVENT	4049	1000	6-1-04
		Si	10	5.00	✓	INORVENT	3500	1000	7-1-03
03E05		Ti	10	5.00	✓	INORVENT	3762	1000	12-1-03
		Sr	10	5.00	✓	INORVENT	3566	1000	9-1-03
		Sn	10	5.00	✓	INORVENT	4026	1000	9-1-04
		Bi	5	2.50	✓	INORVENT	3606	1000	9-1-03
		Sc	10	0.500	✓	INORVENT	3683	10000	10-1-03
	STD6-	La	10	5.00		INORVENT		1000	
		Na	1	0.05		INORVENT		10000	
		Pd	10	5.00		INORVENT		1000	
		S	10	5.00		INORVENT		1000	
		Th	10	5.00		INORVENT		1000	
		U	10	5.00		INORVENT		1000	
		W	5	2.50		INORVENT		1000	
		Y	10	5.00		INORVENT		1000	
		Zr	10	5.00		INORVENT		1000	
		SC	10	0.500		INORVENT		10000	

Expiration Dates:

STD1: **STD4:**

STD2: **STD5:** 7-1-03

STD3: **STD6:** ~~7-1-03~~ DH

SOUTHWEST RESEARCH INSTITUTE
Client: Division 20
Task Order: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
Project#: 06002.01.071

PREP/DIGESTION SHEETS

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 035

010128

CLIENT(S): DIV 20 — cont'd on pages 036 & 037 BK 54

TASK ORDER(S): 030520-13 SDG(S): 226202

PROJECT NO(S): 06002.01.071

METHOD: 3005A___3050B___3050B-7.5___3010A___3020A___7760A___7740A___$HClO_4$___H_2SO_4 Sb___

Microwave___Fusion___Teflon___Rock___OTHER___ df 10 dilutions

MATRIX: Water ✓ Soil___Biota___Solid___Liquid___TCLP Ext___OTHER___

INSTRUMENT: GFAA___ICP ✓ ICP-MS___IC___FLAA___HYDRIDE___OTHER___

ACID INORG #: HNO_3# ** HCl# ** H_2SO_4#___ $HClO_4$#___ HF#___

INTERNAL STD: Sc @ 10 PPM ✓ Be @ 10 PPM___ SOURCE: IV INORG# 4025 EXP: 4/04 AMT: 50 NL

Oven/Hotplate ID: — Temperature (°C): —

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW-E29W1			5	5	
LCSW-E29W1 *			5	5	
~~LCSW-E29W2~~ JW x3	5-29-03		—	—	
226202 df 10			500 NL	5	
6202d					
6203					
6203② *					
6204					
6205					
6206					
6207					
6208					
6209					
6210					
6211					
6212					
6213					
6214					
6215					
6216					
6217					
6218					
6219					
6220					
6221					
*Spike 50 NL Spike 1	Spex#	4074	Exp 5/04		
20 ml I-CAL 1	Spex#	4070	Exp 5/04		
20 NL Si @ 1 Kppm	IV#	3500	Exp 7/03		
df 10 dilution is 500 NL sample to 4.5 mL 1% HNO_3 / 5% HCL (**)					LOCATION: N/A
** RLB-02-020-04 Exp 6-29-03					

PREPARED BY: [signature] DATE: 5-29-03

REVIEWED BY: [signature] DATE: 5-29-03

DISPOSAL INT/DATE/LOC: ___

FRM-191 (Rev 2/Mar 03)

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 036

010129

CLIENT(S): DiV 50 cont'd from BK54 page 035
TASK ORDER(S): 030520-13 SDG(S): 226202
PROJECT NO(S): 06002.01.071
METHOD: 3005A___ 3050B___ 3050B-7.5___ 3010A___ 3020A___ 7760A___ 7740A___ $HClO_4$___ H_2SO_4 Sb___
Microwave___ Fusion___ Teflon___ Rock___ OTHER df 10 dilutions
MATRIX: Water ✓ Soil___ Biota___ Solid___ Liquid___ TCLP Ext___ OTHER___
INSTRUMENT: GFAA___ ICP___ ICP-MS ✓ IC___ FLAA___ HYDRIDE___ OTHER___
ACID INORG #: HNO_3# 4093** HCl# ** H_2SO_4#___ $HClO_4$#___ HF#___
INTERNAL STD: Sc @ 10 PPM ✓ Be @ 10 PPM___ SOURCE: JV INORG# 4025 EXP: 4/04 AMT: 50mL
Oven/Hotplate ID: ___ Temperature (°C): ___

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW-E29W2			5	5	
USW-E29W2 *			5	5	
226222			500mL	5	
6223					
6224					
6225					
6226					
6226d					
6227					
6227⑤ *					
6228					
6229					
6230					
6231					
6232					
6233					
6234					
6235					
6236					
6237					
6238					
6239					
6240					
6241					
* Spike 50mL Spike1	Spex#	4074 Exp 5/04			
20mL ICAL1	Spex#	4070 Exp 5/04			
20mL Si@1kppm	IV#	3560 Exp 7/03			
df 10 dilution is 500mL sample:		4.5mL	10% HNO_3 / 5% HCl (**)		
** RLB-02-030-04	Exp	6-29-03			LOCATION: n/a

PREPARED BY: [signature] DATE: 5-29-03
REVIEWED BY: [signature] DATE: 5-29-03
DISPOSAL INT/DATE/LOC: ___

FRM-191 (Rev 2/Mar 03)

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 037 ~~010~~130

CLIENT(S): DIV 20 cont'd from BK 54 page 035
TASK ORDER(S): 03S520-13 SDG(S): 226202
PROJECT NO(S): ~~03-539-03 E3S520-T3~~ 06002.01.071
METHOD: 3005A ___ 3050B ___ 3050B-7.5 ___ 3010A ___ 3020A ___ 7760A ___ 7740A ___ $HClO_4$ ___ H_2SO_4 Sb ___
Microwave ___ Fusion ___ Teflon ___ Rock ___ OTHER df 10 dilution
MATRIX: Water ✓ Soil ___ Biota ___ Solid ___ Liquid ___ TCLP Ext ___ OTHER ___
INSTRUMENT: GFAA ___ ICP ___ ICP-MS ✓ IC ___ FLAA ___ HYDRIDE ___ OTHER ___
ACID INORG #: HNO_3# ** HCl# ** H_2SO_4# ___ $HClO_4$# ___ HF# ___
INTERNAL STD: Sc @ 10 PPM ___ Be @ 10 PPM ✓ SOURCE: IV INORG# 4025 EXP: 4/04 AMT: 50mL
Oven/Hotplate ID: ___ Temperature (°C): ___

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW-E29W3			5	5	
LCSW-E29W3 *			5	5	
226242 df 10 dilution			500mL	↓	
6242d					
6243					
6243⑤ *					
6244					
6245					
6246					
6247					
6248					
6249					
6250					
6251					
6252					
6253				↓	
* Spike 50mL Spike I	Spex#	4074	Exp 5/04		
↓ 20mL I-CAL I	Spex#	4070	Exp 5/04		
↓ 20mL Si @ 1K ppm	IV#	3500	Exp 7/03		
df 10 dilution is 500mL sample : 4.5mL			1% HNO_3 / 5% HCl		(**)
** - RLB-02-020-04	Exp	6-29-03			
					LOCATION: N/A

PREPARED BY: John W Wells DATE: 5-29-03
REVIEWED BY: JD DATE: 5-29-03
DISPOSAL INT/DATE/LOC: ___

FRM-191 (Rev 2/Mar 03)

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 056
010131

CLIENT(S): DIV 20
TASK ORDER(S): 030520-13 SDG(S): 226202
PROJECT NO(S): 06002.01.071
METHOD: 3005A___ 3050B___ 3050B-7.5___ 3010A___ 3020A___ 7760A___ 7740A___ $HClO_4$___ H_2SO_4 Sb___
Microwave___ Fusion___ Teflon___ Rock___ OTHER df 10 dilutions
MATRIX: Water ✓ Soil___ Biota___ Solid___ Liquid___ TCLP Ext___ OTHER
INSTRUMENT: GFAA___ ICP ✓ ICP-MS___ IC___ FLAA___ HYDRIDE___ OTHER
ACID INORG #: HNO_3# 4094 HCl# 4077 H_2SO_4#___ $HClO_4$#___ HF#___
INTERNAL STD: Sc @ 10 PPM ✓ Be @ 10 PPM___ SOURCE: JV INORG# 4025 EXP: 4/04 AMT: 50NL
Oven/Hotplate ID: ___ Temperature (°C): ___

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBCW - F09W1			5	5	
LCSW - F09W1 *			5	↓	
226223 df 10's			500NL	↓	
6227			↓	↓	
6228					
6229					
6230					
6232					
6233					
6244					
6247 ✓			↓	↓	
* Spike 50NL Spike I	Spex#	4074	Exp 5/04		
↓ 20NL ICAL 1	Spex#	4070	Exp 5/04		
↓ 20NL Si @ 1ppm	IV#	3580	Exp 7/03		
df 10 dilution are prep as	500NL	sample;	4.5mL	10% HNO_3 / 5% HCl	
PBCW and LCSW are prep as	10% HNO_3 / 5% HCl			RLB-02-022-01 Exp 7/03	
JW	6-9-03				
					LOCATION: N/A

PREPARED BY: John Wilder DATE: 6-9-03
REVIEWED BY: C. Adueña DATE: 6/9/03
DISPOSAL INT/DATE/LOC: ___

FRM-191 (Rev 2/Mar 03)

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 060

010132

CLIENT(S): DIV 20 cont'd on pages 061 & 062 BK 54
TASK ORDER(S): 030520-13 SDG(S): 226202
PROJECT NO(S): 06002.01.071
METHOD: 3005A___3050B___3050B-7.5___3010A___3020A___7760A___7740A___$HClO_4$___H_2SO_4 Sb___
Microwave___Fusion___Teflon___Rock___OTHER___ df 10 dilutions
MATRIX: Water ✓ Soil___Biota___Solid___Liquid___TCLP Ext___OTHER___
INSTRUMENT: GFAA___ICP___ICP-MS ✓ IC___FLAA___HYDRIDE___OTHER___
ACID INORG #: HNO_3# ** HCl#___ H_2SO_4#___ $HClO_4$#___ HF#___
INTERNAL STD: Sc @ 10 PPM___Be @ 10 PPM___SOURCE:___INORG#___EXP:___AMT:___
Oven/Hotplate ID: — Temperature (°C): —

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW-F10W1			10	10	
LCSW-F10W1 *			10		
226202 df 10					
6202d					
6203					
6203(5) *					
6204					
6205					
6206					
6207					
6208					
6209					
6210					
6211					
6212					
6213					
6214					
6215					
6216					
6217					
6218					
6219					
6220					
6221					
*Spike 20 NL CCS#1	IV#	3493	Exp 7/03		
PBW & LCSW are prepared as	1% HNO_3	** RCB -	02.020.04	Exp 7/03	
df 10 dilution is 1mL sample to 9mL					LOCATION:

PREPARED BY: [signature] DATE: 6-10-03
REVIEWED BY: [signature] DATE: 6/10/03
DISPOSAL INT/DATE/LOC: ___

FRM-191 (Rev 2/Mar 03)

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 061

010133

CLIENT(S): DW 20
TASK ORDER(S): 03.05.20-13 SDG(S): 226202
PROJECT NO(S): 06.002.01.071
METHOD: 3005A ___ 3050B ___ 3050B-7.5 ___ 3010A ___ 3020A ___ 7760A ___ 7740A ___ $HClO_4$ ___ H_2SO_4 Sb ___
Microwave ___ Fusion ___ Teflon ___ Rock ___ OTHER Hf 10 dilutions
MATRIX: Water ___ Soil ✓ Biota ___ Solid ___ Liquid ___ TCLP Ext ___ OTHER ___
INSTRUMENT: GFAA ___ ICP ___ ICP-MS ✓ IC ___ FLAA ___ HYDRIDE ___ OTHER ___
ACID INORG #: HNO_3# ** HCl# ___ H_2SO_4# ___ $HClO_4$# ___ HF# ___
INTERNAL STD: Sc @ 10 PPM ___ Be @ 10 PPM ___ SOURCE: ___ INORG# ___ EXP: ___ AMT: ___
Oven/Hotplate ID: ___ Temperature (°C): ___

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW-F10W2			10	10	
LCSW-F10W2 *			10		
226222 Hf10x			1		
6223					
6224					
6225					
6226					
6226d					
6227					
6227@*					
6228					
6229					
6230					
6231					
6232					
6233					
6234					
6235					
6236					
6237					
6238					
6239					
6240					
✓ 6241 ✓			✓	✓	
*Spike 20mL CCS#1	IV#	3493	Exp 7/03		
PBW & LCSW are prepared as	1% HNO_3 **		RLB-02-	020-04	Exp 7/03
Hf10 dilution is 1mL sample to	9mL 1%	HNO_3	—	**	LOCATION:

PREPARED BY: John Wilder DATE: 6-10-03
REVIEWED BY: Therese O'Brien DATE: 6/10/03
DISPOSAL INT/DATE/LOC: ___

FRM-191 (Rev 2/Mar 03)

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 062

010134

CLIENT(S): DIV 20
TASK ORDER(S): 030520-13 SDG(S): 226202
PROJECT NO(S): 06002.01.071
METHOD: 3005A___3050B___3050B-7.5___3010A___3020A___7760A___7740A___$HClO_4$___H_2SO_4 Sb___
Microwave___Fusion___Teflon___Rock___OTHER___ df 10 dilution
MATRIX: Water ✓ Soil___Biota___Solid___Liquid___TCLP Ext___OTHER___
INSTRUMENT: GFAA___ICP___ICP-MS___✓IC___FLAA___HYDRIDE___OTHER___
ACID INORG #: HNO_3#___ ** ___HCl#___ H_2SO_4#___ $HClO_4$#___ HF#___
INTERNAL STD: Sc @ 10 PPM___Be @ 10 PPM___SOURCE:___INORG#___EXP:___AMT:___
Oven/Hotplate ID: — Temperature (°C): —

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW - F10W3			10	10	
LCSW - F10W3 *			10		
226242 df 10's					
6242d					
6243					
6243(S) *					
6244					
6245					
6246					
6247					
6248					
6249					
6250					
6251					
6252					
6253					
*Spike 20 NL CCS#1	1V#	3493	Exp 7/03		
PBW and LCSW are prepared as 1% HNO_3			RLB-02-020-0~~2~~4		** Exp 7/03
DF dilution is 1mL sample: 9mL **			RLB-02-020-0-1		Exp 7/03
					LOCATION:

JW 6-10-03

PREPARED BY: [signature] DATE: 6-10-03
REVIEWED BY: [signature] DATE: 6/10/03
DISPOSAL INT/DATE/LOC: ___

FRM-191 (Rev 2/Mar 03)

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 071

010135

CLIENT(S): DIV 20
TASK ORDER(S): 030520-13 SDG(S): 226202
PROJECT NO(S): 06002.01.071
METHOD: 3005A ___ 3050B ___ 3050B-7.5 ___ 3010A ___ 3020A ___ 7760A ___ 7740A ___ $HClO_4$ ___ H_2SO_4 Sb ___
Microwave ___ Fusion ___ Teflon ___ Rock ___ OTHER df 10 dilutions
MATRIX: Water ✓ Soil ___ Biota ___ Solid ___ Liquid ___ TCLP Ext ___ OTHER ___
INSTRUMENT: GFAA ___ ICP ___ ICP-MS ✓ IC ___ FLAA ___ HYDRIDE ___ OTHER ___
ACID INORG #: HNO_3# ** HCl# ___ H_2SO_4# ___ $HClO_4$# ___ HF# ___
INTERNAL STD: Sc @ 10 PPM ___ Be @ 10 PPM ___ SOURCE: ___ INORG# ___ EXP: ___ AMT: ___
Oven/Hotplate ID: ___ Temperature (°C): ___

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW-F17W1			10	10	
LCSW-F17W1 *			10		
226202 df 10's			1 mL		
6203					
6204					
6205					
6206					
6216					
6227					
6228					
6228S *					
6229					
6230					
* Spike 20 mL ccs #1	Lot#	3493	Exp 7/03		
** RLB-02-022-06	Exp	7/03			
PBW & LCSW are prepared as 1% HNO_3 — **					
df 10 dilution are prepared as	1 mL sample : 9 mL		1% HNO_3 — **		
		6-17-03			
					LOCATION: N/A

PREPARED BY: John Wilder DATE: 6-17-03
REVIEWED BY: [signature] DATE: 6-17-03
DISPOSAL INT/DATE/LOC: ___

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 072

010136

CLIENT(S): DIV 20
TASK ORDER(S): 030520-13 SDG(S): 226202
PROJECT NO(S): 06002.01.071
METHOD: 3005A ___ 3050B ___ 3050B-7.5 ___ 3010A ___ 3020A ___ 7760A ___ 7740A ___ $HClO_4$ ___ H_2SO_4 Sb ___
Microwave ___ Fusion ___ Teflon ___ Rock ___ OTHER df 20 dilution
MATRIX: Water ✓ Soil ___ Biota ___ Solid ___ Liquid ___ TCLP Ext ___ OTHER ___
INSTRUMENT: GFAA ___ ICP ___ ICP-MS ✓ IC ___ FLAA ___ HYDRIDE ___ OTHER ___
ACID INORG #: HNO_3# ** HCl# ___ H_2SO_4# ___ $HClO_4$# ___ HF# ___
INTERNAL STD: Sc @ 10 PPM ___ Be @ 10 PPM ___ SOURCE: ___ INORG# ___ EXP: ___ AMT: ___
Oven/Hotplate ID: ___ Temperature (°C): ___

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW-F17402			10	10	
LCSW-F17402 *			10		
226208 df 20			500 nL		
6208d					
6210					
6212					
6231					
6234					
6244					
* Spike 20 nL CCS #1	IW# 3493		Exp 7/03		
** RLB-02-022-06	Exp	7/03			
PBW and LCSW are prepared as		10 mL	1% HNO_3	— **	
df 20 dilution is prepared as		500 nL sample :		9.5 mL	— **
		6-17-03			
					LOCATION: N/A

PREPARED BY: John Weller DATE: 6-17-03
REVIEWED BY: [signature] DATE: 6-17-03
DISPOSAL INT/DATE/LOC: ___

FRM-191 (Rev 2/Mar 03)

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 073

010137

CLIENT(S): DIV 20
TASK ORDER(S): 030520-13 SDG(S): 226202
PROJECT NO(S): 06002.01.071
METHOD: 3005A___3050B___3050B-7.5___3010A___3020A___7760A___7740A___$HClO_4$___H_2SO_4 Sb___
Microwave___Fusion___Teflon___Rock___OTHER df 50 dilution
MATRIX: Water ✓ Soil___Biota___Solid___Liquid___TCLP Ext___OTHER___
INSTRUMENT: GFAA___ICP___ICP-MS ✓ IC___FLAA___HYDRIDE___OTHER___
ACID INORG #: HNO_3# ** HCl#___ H_2SO_4#___ $HClO_4$#___ HF#___
INTERNAL STD: Sc @ 10 PPM___Be @ 10 PPM___SOURCE:___INORG#___EXP:___AMT:___
Oven/Hotplate ID: — Temperature (°C): —

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW-F17W3			10	10	
LCSW-F17W3 *			10		
df 50 226207			200nL		
6207 (S) dup JW 6-17-03					
6209					
6211					
6213					
6214					
6218					
6219					
6220					
6222					
~~6232~~ JW 6-17-03					
df 50 6232			200nL	10	
6233					
6233 (S) *					
6236					
6237					
6238					
6240					
6246					
6247					
* Spike 20nL LCS#1	IV#	3493	Exp 7/03		
** RLB-02-022-06	Exp	7/03			
PBW and LCSW are prepared	as	10mL 1% HNO_3 —		**	
df 50 dilution is prepared	as	200nL sample : 9.8	mL — **		
					LOCATION: N/A

PREPARED BY: John Wilks DATE: 6-17-03
REVIEWED BY: [signature] DATE: 6-17-03
DISPOSAL INT/DATE/LOC:

FRM-191 (Rev 2/Mar 03)

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 074

010138

CLIENT(S): DIV 20
TASK ORDER(S): 03S520-13 SDG(S): 226202
PROJECT NO(S): 06.002.01.071
METHOD: 3005A ___ 3050B ___ 3050B-7.5 ___ 3010A ___ 3020A ___ 7760A ___ 7740A ___ $HClO_4$ ___ H_2SO_4 Sb ___
Microwave ___ Fusion ___ Teflon ___ Rock ___ OTHER df 100 dilution
MATRIX: Water ✓ Soil ___ Biota ___ Solid ___ Liquid ___ TCLP Ext ___ OTHER ___
INSTRUMENT: GFAA ___ ICP ___ ICP-MS ✓ IC ___ FLAA ___ HYDRIDE ___ OTHER ___
ACID INORG #: HNO_3# *** HCl# ___ H_2SO_4# ___ $HClO_4$# ___ HF# ___
INTERNAL STD: Sc @ 10 PPM ___ Be @ 10 PPM ___ SOURCE: ___ INORG# ___ EXP: ___ AMT: ___
Oven/Hotplate ID: ___ Temperature (°C): ___

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW-F17W4			10	10	
LCSW-F17W4 *			10		
226217 df 100			100 NL		
6221					
6223					
6224					
6226					
6242					
6248					
6248d					
6249					
6250					
✓ 6252					
* Spike 20 NL LCS#1	IV# 3493		Exp 7/03		
*** RLB-02-023-01	Exp 7/03				
PBW and LCSW are prepared as 10mL 1% HNO_3 — ***					
df 100 dilution is prepared as 100NL sample to 9.9mL - ***					
					LOCATION:

6-17-03

PREPARED BY: John Wilder DATE: 6-19-03
REVIEWED BY: DDL DATE: 6-17-03
DISPOSAL INT/DATE/LOC: ___

FRM-191 (Rev 2/Mar 03)

TRACE METALS PREPARATORY LABORATORY DIGESTION LOG

SOUTHWEST RESEARCH INSTITUTE
SAN ANTONIO, TEXAS 78228

BOOK / PAGE: 54 075

010139

CLIENT(S): DIV 20
TASK ORDER(S): 030520-13 SDG(S): 226202
PROJECT NO(S): 06002.01.071
METHOD: 3005A___ 3050B___ 3050B-7.5___ 3010A___ 3020A___ 7760A___ 7740A___ $HClO_4$___ H_2SO_4 Sb___
Microwave___ Fusion___ Teflon___ Rock___ OTHER df 200 dilution
MATRIX: Water✓ Soil___ Biota___ Solid___ Liquid___ TCLP Ext___ OTHER___
INSTRUMENT: GFAA___ ICP___ ICP-MS✓ IC___ FLAA___ HYDRIDE___ OTHER___
ACID INORG #: HNO_3# *** HCl#___ H_2SO_4#___ $HClO_4$#___ HF#___
INTERNAL STD: Sc @ 10 PPM___ Be @ 10 PPM___ SOURCE:___ INORG#___ EXP:___ AMT:___
Oven/Hotplate ID: ___ Temperature (°C): ___

SAMPLE IDENTIFICATION	pH	WT (g)	I.V. (mL)	F.V. (mL)	
PBW-F17W5			10	10	
LCSW-F17W5 *			10	↓	
226215 df200			50mL	↓	
↓ 6225			↓	↓	
6235					
6239					
6241					
6243					
6245					
6251					
6251② *					
↓ 6253 ↓			↓	↓	
* Spike 20mL LCS#1	IV#	3493	Exp 7/03		
*** RLB-02-023-01	Exp	7/03			
		10mL	1% HNO_3 —		***
PBW and LCSW are prepared as ~~50mL sample~~ JW 6-17-03				9.95mL —	***
df 200 dilution is prepared as			50mL sample:	9.95mL —	***
JW		6-17-03			
					LOCATION:

PREPARED BY: John Wilks DATE: 6-17-03
REVIEWED BY: [signature] DATE: 6-17-03
DISPOSAL INT/DATE/LOC: ___

FRM-191 (Rev 2/Mar 03)

Div 20
to#030520-13
06002.01.071

system id	date	time	elem	result	qual	units	rl	tv	rec	ng/L @instr	df	mg/L
226202 df10	19-Jun-2003	21:07	U	0.001	U	mg/L	0.001			20.7393	10	0.000207
226203 df10	19-Jun-2003	21:09	U	0.00489		mg/L	0.001			488.553	10	0.004886
226204 df10	19-Jun-2003	21:12	U	0.0250		mg/L	0.001			2498.82	10	0.024988
226205 df10	19-Jun-2003	21:20	U	0.0255		mg/L	0.001			2546.84	10	0.025468
226206 df10	19-Jun-2003	21:22	U	0.206		mg/L	0.001			20622.5	10	0.206225
226207 df50	19-Jun-2003	19:21	U	1.23		mg/L	0.001			24524	50	1.226200
226207d df50	19-Jun-2003	19:24	U	1.28		mg/L	0.001			25588.1	50	1.279405
226208 df20	19-Jun-2003	20:39	U	0.613		mg/L	0.001			30654.7	20	0.613094
226208d df20	19-Jun-2003	20:41	U	0.558		mg/L	0.001			27881.7	20	0.557634
226209 df50	19-Jun-2003	19:26	U	1.15		mg/L	0.001			22912.1	50	1.145605
226210 df20	19-Jun-2003	20:49	U	0.496		mg/L	0.001			24786	20	0.495720
226211 df50	19-Jun-2003	19:34	U	0.964		mg/L	0.001			19279.8	50	0.963990
226212 df20	19-Jun-2003	20:51	U	0.451		mg/L	0.001			22557.2	20	0.451144
226213 df50	19-Jun-2003	19:37	U	1.14		mg/L	0.001			22773.5	50	1.138675
226214 df50	19-Jun-2003	19:39	U	1.29		mg/L	0.001			25889.3	50	1.294465
226215 df200	19-Jun-2003	18:06	U	7.97		mg/L	0.001			39851.1	200	7.970220
226216 df10	19-Jun-2003	21:25	U	0.294		mg/L	0.001			29391.3	10	0.293913
226217 df100	19-Jun-2003	18:42	U	2.34		mg/L	0.001			23444.5	100	2.344450
226218 df50	19-Jun-2003	19:42	U	1.15		mg/L	0.001			22937.3	50	1.146865
226219 df50	19-Jun-2003	19:44	U	1.11		mg/L	0.001			22208.4	50	1.110420
226220 df50	19-Jun-2003	19:47	U	1.48		mg/L	0.001			29603.5	50	1.480175
226221 df100	19-Jun-2003	18:45	U	1.67		mg/L	0.001			16712.1	100	1.671210
226222 df50	19-Jun-2003	19:50	U	1.31		mg/L	0.001			26236.4	50	1.311820
226223 df100	19-Jun-2003	18:48	U	2.08		mg/L	0.001			20847.5	100	2.084750
226224 df100	19-Jun-2003	18:50	U	1.89		mg/L	0.001			18864.1	100	1.886410
226225 df200	19-Jun-2003	18:09	U	3.40		mg/L	0.001			17014.8	200	3.402960
226226 df100	19-Jun-2003	18:53	U	2.10		mg/L	0.001			21030	100	2.103000
226227 df10	19-Jun-2003	21:28	U	0.218		mg/L	0.001			21777.5	10	0.217775
226228 df10	19-Jun-2003	21:30	U	0.108		mg/L	0.001			10818.4	10	0.108184
226228s df10	19-Jun-2003	21:33	U	2.37		mg/L	0.001	2	113.1%	236967	10	2.369670
226229 df10	19-Jun-2003	21:35	U	0.0538		mg/L	0.001			5377.43	10	0.053774
226230 df10	19-Jun-2003	21:38	U	0.0233		mg/L	0.001			2327.4	10	0.023274
226231 df10	12-Jun-2003	17:28	U	0.397		mg/L	0.001			39719.8	10	0.397198
226232 df50	19-Jun-2003	19:52	U	1.06		mg/L	0.001			21105.3	50	1.055265
226233 df50	19-Jun-2003	19:55	U	0.633		mg/L	0.001			12654.9	50	0.632745
226233s df50	19-Jun-2003	19:57	U	11.3		mg/L	0.001	10	106.4%	225551	50	11.277550
226234 df20	19-Jun-2003	20:57	U	0.322		mg/L	0.001			16103.8	20	0.322076
226235 df200	19-Jun-2003	18:11	U	9.22		mg/L	0.001			46095.5	200	9.219100
226236 df50	19-Jun-2003	20:18	U	0.821		mg/L	0.001			16416.4	50	0.820820

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system id	date	time	elem	result	qual	units	rl	tv	rec	ng/L @instr	df	mg/L
226237 df50	19-Jun-2003	20:20	U	0.941		mg/L	0.001			18813.1	50	0.940655
226238 df50	19-Jun-2003	20:23	U	1.56		mg/L	0.001			31216	50	1.560800
226239 df200	19-Jun-2003	18:14	U	3.17		mg/L	0.001			15850	200	3.170000
226240 df50	19-Jun-2003	20:26	U	1.35		mg/L	0.001			26990.6	50	1.349530
226241 df200	19-Jun-2003	18:16	U	3.01		mg/L	0.001			15034.4	200	3.006880
226242 df100	19-Jun-2003	18:55	U	2.08		mg/L	0.001			20806.7	100	2.080670
226243 df200	19-Jun-2003	18:19	U	3.05		mg/L	0.001			15255.3	200	3.051060
226244 df20	19-Jun-2003	20:59	U	0.394		mg/L	0.001			19710	20	0.394200
226245 df200	19-Jun-2003	18:22	U	3.91		mg/L	0.001			19553.9	200	3.910780
226246 df50	19-Jun-2003	20:28	U	0.826		mg/L	0.001			16521.3	50	0.826065
226247 df50	19-Jun-2003	20:31	U	1.21		mg/L	0.001			24176.9	50	1.208845
226248 df100	19-Jun-2003	19:03	U	1.57		mg/L	0.001			15706.2	100	1.570620
226248d df100	19-Jun-2003	19:06	U	1.60		mg/L	0.001			16017.6	100	1.601760
226249 df100	19-Jun-2003	19:08	U	1.62		mg/L	0.001			16220	100	1.622000
226250 df100	19-Jun-2003	19:11	U	1.61		mg/L	0.001			16057.4	100	1.605740
226251 df200	19-Jun-2003	18:24	U	2.76		mg/L	0.001			13806.4	200	2.761280
226251s df200	19-Jun-2003	18:32	U	48.1		mg/L	0.001	40	113.5%	240732	200	48.146400
226252 df100	19-Jun-2003	19:13	U	1.86		mg/L	0.001			18558.3	100	1.855830
226253 df200	19-Jun-2003	18:35	U	4.00		mg/L	0.001			20024.2	200	4.004840
lcsw-f17w1 df20	19-Jun-2003	21:04	U	0.197		mg/L	0.001	0.2	98.7%	9872.63	20	0.197453
lcsw-f17w2 df20	19-Jun-2003	20:36	U	0.203		mg/L	0.001	0.2	101.5%	10150	20	0.203000
lcsw-f17w3 df20	19-Jun-2003	19:19	U	0.195		mg/L	0.001	0.2	97.3%	9727.33	20	0.194547
lcsw-f17w4 df20	19-Jun-2003	18:40	U	0.208		mg/L	0.001	0.2	104.1%	10414.8	20	0.208296
lcsw-f17w5 df20	19-Jun-2003	18:04	U	0.209		mg/L	0.001	0.2	104.4%	10438.3	20	0.208766
pbw-f17w1	19-Jun-2003	21:02	U	0.001	U	mg/L	0.001			12.0642	1	0.000012
pbw-f17w2	19-Jun-2003	20:34	U	0.001	U	mg/L	0.001			3.93402	1	0.000004
pbw-f17w3	19-Jun-2003	19:16	U	0.001	U	mg/L	0.001			14.1621	1	0.000014
pbw-f17w4	19-Jun-2003	18:37	U	0.001	U	mg/L	0.001			25.5901	1	0.000026
pbw-f17w5	19-Jun-2003	18:01	U	0.001	U	mg/L	0.001			5.49609	1	0.000005

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226202	Ag3280	0.05	U	mg/L	0.05			0.00009	0.005	10	0.0009	05/29/03	16:36
226202	Al3082	0.5	U	mg/L	0.5			0.00824	0.05	10	0.0824	05/29/03	16:36
226202	As1890	0.05	U	mg/L	0.05			-0.00069	0.005	10	-0.0069	05/29/03	16:36
226202	B_2496	0.25	U	mg/L	0.25			0.00412	0.025	10	0.0412	05/29/03	16:36
226202	Ba4934	0.05	U	mg/L	0.05			0.00338	0.005	10	0.0338	05/29/03	16:36
226202	Be3130	0.05	U	mg/L	0.05			0.00011	0.005	10	0.0011	05/29/03	16:36
226202	Bi2230	0.15	U	mg/L	0.15			0.00056	0.015	10	0.0056	05/29/03	16:36
226202	Ca3179	398		mg/L	1.5			39.80135	0.15	10	398.0135	05/29/03	16:36
226202	Cd2265	0.05	U	mg/L	0.05			0.00008	0.005	10	0.0008	05/29/03	16:36
226202	Co2286	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	16:36
226202	Cr2677	0.05	U	mg/L	0.05			0.00058	0.005	10	0.0058	05/29/03	16:36
226202	Cu3247	0.05	U	mg/L	0.05			0.00104	0.005	10	0.0104	05/29/03	16:36
226202	Fe2714	0.6	U	mg/L	0.6			0.01739	0.06	10	0.1739	05/29/03	16:36
226202	K_7664	1	U	mg/L	1			0.01914	0.1	10	0.1914	05/29/03	16:36
226202	La3988	0.05	U	mg/L	0.05			-0.00014	0.005	10	-0.0014	05/29/03	16:36
226202	Li6707	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	16:36
226202	Mg2790	0.5	U	mg/L	0.5			0.00916	0.05	10	0.0916	05/29/03	16:36
226202	Mn2576	0.05	U	mg/L	0.05			0.00089	0.005	10	0.0089	05/29/03	16:36
226202	Mo2020	0.05	U	mg/L	0.05			0.00049	0.005	10	0.0049	05/29/03	16:36
226202	Na5889	1	U	mg/L	1			0.00981	0.1	10	0.0981	05/29/03	16:36
226202	Ni2316	0.05	U	mg/L	0.05			0.00023	0.005	10	0.0023	05/29/03	16:36
226202	P_1782	0.25	U	mg/L	0.25			0.00668	0.025	10	0.0668	05/29/03	16:36
226202	Pb220	0.05	U	mg/L	0.05			0.00134	0.005	10	0.0134	05/29/03	16:36
226202	Pd3404	0.1	U	mg/L	0.1			0.00024	0.01	10	0.0024	05/29/03	16:36
226202	S_1820	0.25	U	mg/L	0.25			0.00295	0.025	10	0.0295	05/29/03	16:36
226202	Sb2068	0.1	U	mg/L	0.1			-0.00027	0.01	10	-0.0027	05/29/03	16:36
226202	Se196	0.05	U	mg/L	0.05			0.00125	0.005	10	0.0125	05/29/03	16:36
226202	Si2881	32.3		mg/L	0.25			3.23244	0.025	10	32.3244	05/29/03	16:36
226202	Sn1899	0.05	U	mg/L	0.05			0.00090	0.005	10	0.009	05/29/03	16:36
226202	Sr4215	0.262		mg/L	0.05			0.02615	0.005	10	0.2615	05/29/03	16:36
226202	Th2837	0.1	U	mg/L	0.1			0.00026	0.01	10	0.0026	05/29/03	16:36
226202	Ti3349	0.05	U	mg/L	0.05			0.00008	0.005	10	0.0008	05/29/03	16:36
226202	Tl1908	0.1	U	mg/L	0.1			-0.00011	0.01	10	-0.0011	05/29/03	16:36
226202	V_2924	0.05	U	mg/L	0.05			-0.00010	0.005	10	-0.001	05/29/03	16:36
226202	W_2079	0.1	U	mg/L	0.1			0.00281	0.01	10	0.0281	05/29/03	16:36
226202	Y_3710	0.05	U	mg/L	0.05			-0.00008	0.005	10	-0.0008	05/29/03	16:36
226202	Zn2062	0.05	U	mg/L	0.05			0.00028	0.005	10	0.0028	05/29/03	16:36
226202	Zr3496	0.05	U	mg/L	0.05			0.00035	0.005	10	0.0035	05/29/03	16:36
226202d	Ag3280	0.05	U	mg/L	0.05			-0.00073	0.005	10	-0.0073	05/29/03	16:41
226202d	Al3082	0.5	U	mg/L	0.5			0.00772	0.05	10	0.0772	05/29/03	16:41

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226202d	As1890	0.05	U	mg/L	0.05			-0.00171	0.005	10	-0.0171	05/29/03	16:41
226202d	B_2496	0.25	U	mg/L	0.25			0.00382	0.025	10	0.0382	05/29/03	16:41
226202d	Ba4934	0.05	U	mg/L	0.05			0.00199	0.005	10	0.0199	05/29/03	16:41
226202d	Be3130	0.05	U	mg/L	0.05			0.00011	0.005	10	0.0011	05/29/03	16:41
226202d	Bi2230	0.15	U	mg/L	0.15			-0.00085	0.015	10	-0.0085	05/29/03	16:41
226202d	Ca3179	392		mg/L	1.5			39.24316	0.15	10	392.4316	05/29/03	16:41
226202d	Cd2265	0.05	U	mg/L	0.05			-0.00016	0.005	10	-0.0016	05/29/03	16:41
226202d	Co2286	0.05	U	mg/L	0.05			-0.00046	0.005	10	-0.0046	05/29/03	16:41
226202d	Cr2677	0.05	U	mg/L	0.05			0.00090	0.005	10	0.009	05/29/03	16:41
226202d	Cu3247	0.05	U	mg/L	0.05			0.00107	0.005	10	0.0107	05/29/03	16:41
226202d	Fe2714	0.6	U	mg/L	0.6			-0.00270	0.06	10	-0.027	05/29/03	16:41
226202d	K_7664	1	U	mg/L	1			-0.00351	0.1	10	-0.0351	05/29/03	16:41
226202d	La3988	0.05	U	mg/L	0.05			-0.00090	0.005	10	-0.009	05/29/03	16:41
226202d	Li6707	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	16:41
226202d	Mg2790	0.5	U	mg/L	0.5			-0.00083	0.05	10	-0.0083	05/29/03	16:41
226202d	Mn2576	0.05	U	mg/L	0.05			0.00074	0.005	10	0.0074	05/29/03	16:41
226202d	Mo2020	0.05	U	mg/L	0.05			-0.00005	0.005	10	-0.0005	05/29/03	16:41
226202d	Na5889	1	U	mg/L	1			0.02898	0.1	10	0.2898	05/29/03	16:41
226202d	Ni2316	0.05	U	mg/L	0.05			-0.00008	0.005	10	-0.0008	05/29/03	16:41
226202d	P_1782	0.25	U	mg/L	0.25			0.00132	0.025	10	0.0132	05/29/03	16:41
226202d	Pb220	0.05	U	mg/L	0.05			0.00115	0.005	10	0.0115	05/29/03	16:41
226202d	Pd3404	0.1	U	mg/L	0.1			-0.00290	0.01	10	-0.029	05/29/03	16:41
226202d	S_1820	0.25	U	mg/L	0.25			0.00394	0.025	10	0.0394	05/29/03	16:41
226202d	Sb2068	0.1	U	mg/L	0.1			0.00284	0.01	10	0.0284	05/29/03	16:41
226202d	Se196	0.05	U	mg/L	0.05			0.00183	0.005	10	0.0183	05/29/03	16:41
226202d	Si2881	32.4		mg/L	0.25			3.23575	0.025	10	32.3575	05/29/03	16:41
226202d	Sn1899	0.05	U	mg/L	0.05			0.00053	0.005	10	0.0053	05/29/03	16:41
226202d	Sr4215	0.255		mg/L	0.05			0.02545	0.005	10	0.2545	05/29/03	16:41
226202d	Th2837	0.1	U	mg/L	0.1			0.00194	0.01	10	0.0194	05/29/03	16:41
226202d	Ti3349	0.05	U	mg/L	0.05			0.00009	0.005	10	0.0009	05/29/03	16:41
226202d	Tl1908	0.1	U	mg/L	0.1			-0.00033	0.01	10	-0.0033	05/29/03	16:41
226202d	V_2924	0.05	U	mg/L	0.05			-0.00007	0.005	10	-0.0007	05/29/03	16:41
226202d	W_2079	0.1	U	mg/L	0.1			0.00164	0.01	10	0.0164	05/29/03	16:41
226202d	Y_3710	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	16:41
226202d	Zn2062	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	16:41
226202d	Zr3496	0.05	U	mg/L	0.05			0.00027	0.005	10	0.0027	05/29/03	16:41
226203	Ag3280	0.05	U	mg/L	0.05			-0.00112	0.005	10	-0.0112	05/29/03	16:45
226203	Al3082	0.5	U	mg/L	0.5			-0.00334	0.05	10	-0.0334	05/29/03	16:45
226203	As1890	0.05	U	mg/L	0.05			-0.00127	0.005	10	-0.0127	05/29/03	16:45
226203	B_2496	0.25	U	mg/L	0.25			0.00317	0.025	10	0.0317	05/29/03	16:45

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226203	Ba4934	0.05	U	mg/L	0.05			0.00207	0.005	10	0.0207	05/29/03	16:45
226203	Be3130	0.05	U	mg/L	0.05			0.00010	0.005	10	0.001	05/29/03	16:45
226203	Bi2230	0.15	U	mg/L	0.15			-0.00333	0.015	10	-0.0333	05/29/03	16:45
226203	Ca3179	398		mg/L	1.5			39.83051	0.15	10	398.3051	05/29/03	16:45
226203	Cd2265	0.05	U	mg/L	0.05			-0.00006	0.005	10	-0.0006	05/29/03	16:45
226203	Co2286	0.05	U	mg/L	0.05			-0.00063	0.005	10	-0.0063	05/29/03	16:45
226203	Cr2677	0.05	U	mg/L	0.05			0.00115	0.005	10	0.0115	05/29/03	16:45
226203	Cu3247	0.05	U	mg/L	0.05			0.00171	0.005	10	0.0171	05/29/03	16:45
226203	Fe2714	0.6	U	mg/L	0.6			-0.00193	0.06	10	-0.0193	05/29/03	16:45
226203	K_7664	1	U	mg/L	1			-0.00774	0.1	10	-0.0774	05/29/03	16:45
226203	La3988	0.05	U	mg/L	0.05			-0.00136	0.005	10	-0.0136	05/29/03	16:45
226203	Li6707	0.05	U	mg/L	0.05			0.00010	0.005	10	0.001	05/29/03	16:45
226203	Mg2790	0.5	U	mg/L	0.5			-0.00669	0.05	10	-0.0669	05/29/03	16:45
226203	Mn2576	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	16:45
226203	Mo2020	0.05	U	mg/L	0.05			-0.00069	0.005	10	-0.0069	05/29/03	16:45
226203	Na5889	1	U	mg/L	1			0.00684	0.1	10	0.0684	05/29/03	16:45
226203	Ni2316	0.05	U	mg/L	0.05			0.00058	0.005	10	0.0058	05/29/03	16:45
226203	P_1782	0.25	U	mg/L	0.25			0.00471	0.025	10	0.0471	05/29/03	16:45
226203	Pb220	0.05	U	mg/L	0.05			0.00042	0.005	10	0.0042	05/29/03	16:45
226203	Pd3404	0.1	U	mg/L	0.1			-0.00364	0.01	10	-0.0364	05/29/03	16:45
226203	S_1820	0.25	U	mg/L	0.25			0.00473	0.025	10	0.0473	05/29/03	16:45
226203	Sb2068	0.1	U	mg/L	0.1			0.00046	0.01	10	0.0046	05/29/03	16:45
226203	Se196	0.05	U	mg/L	0.05			0.00145	0.005	10	0.0145	05/29/03	16:45
226203	Si2881	32.4		mg/L	0.25			3.24366	0.025	10	32.4366	05/29/03	16:45
226203	Sn1899	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	16:45
226203	Sr4215	0.254		mg/L	0.05			0.02540	0.005	10	0.254	05/29/03	16:45
226203	Th2837	0.1	U	mg/L	0.1			0.00289	0.01	10	0.0289	05/29/03	16:45
226203	Ti3349	0.05	U	mg/L	0.05			0.00017	0.005	10	0.0017	05/29/03	16:45
226203	Tl1908	0.1	U	mg/L	0.1			-0.00101	0.01	10	-0.0101	05/29/03	16:45
226203	V_2924	0.05	U	mg/L	0.05			0.00009	0.005	10	0.0009	05/29/03	16:45
226203	W_2079	0.1	U	mg/L	0.1			-0.00179	0.01	10	-0.0179	05/29/03	16:45
226203	Y_3710	0.05	U	mg/L	0.05			-0.00005	0.005	10	-0.0005	05/29/03	16:45
226203	Zn2062	0.05	U	mg/L	0.05			0.00060	0.005	10	0.006	05/29/03	16:45
226203	Zr3496	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	16:45
226203s	Ag3280	0.522		mg/L	0.05	0.5	104.4%	0.05218	0.005	10	0.5218	05/29/03	16:50
226203s	Al3082	19.5		mg/L	0.5	20	97.3%	1.94682	0.05	10	19.4682	05/29/03	16:50
226203s	As1890	20.3		mg/L	0.05	20	101.3%	2.02642	0.005	10	20.2642	05/29/03	16:50
226203s	B_2496	0.25	U	mg/L	0.25			0.00315	0.025	10	0.0315	05/29/03	16:50
226203s	Ba4934	20.1		mg/L	0.05	20	100.4%	2.00754	0.005	10	20.0754	05/29/03	16:50
226203s	Be3130	0.495		mg/L	0.05	0.5	99.0%	0.04950	0.005	10	0.495	05/29/03	16:50

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226203s	Bi2230	0.15	U	mg/L	0.15			0.00662	0.015	10	0.0662	05/29/03	16:50
226203s	Ca3179	593		mg/L	1.5	200	97.4%	59.27083	0.15	10	592.7083	05/29/03	16:50
226203s	Cd2265	0.514		mg/L	0.05	0.5	102.8%	0.05141	0.005	10	0.5141	05/29/03	16:50
226203s	Co2286	5.02		mg/L	0.05	5	100.4%	0.50219	0.005	10	5.0219	05/29/03	16:50
226203s	Cr2677	1.97		mg/L	0.05	2	98.4%	0.19672	0.005	10	1.9672	05/29/03	16:50
226203s	Cu3247	2.48		mg/L	0.05	2.5	99.0%	0.24761	0.005	10	2.4761	05/29/03	16:50
226203s	Fe2714	11.2		mg/L	0.6	10	112.0%	1.12023	0.06	10	11.2023	05/29/03	16:50
226203s	K_7664	176		mg/L	1	200	88.2%	17.63164	0.1	10	176.3164	05/29/03	16:50
226203s	La3988	0.05	U	mg/L	0.05			0.00136	0.005	10	0.0136	05/29/03	16:50
226203s	Li6707	0.05	U	mg/L	0.05			0.00034	0.005	10	0.0034	05/29/03	16:50
226203s	Mg2790	205		mg/L	0.5	200	102.5%	20.50195	0.05	10	205.0195	05/29/03	16:50
226203s	Mn2576	5.08		mg/L	0.05	5	101.6%	0.50779	0.005	10	5.0779	05/29/03	16:50
226203s	Mo2020	0.05	U	mg/L	0.05			-0.00038	0.005	10	-0.0038	05/29/03	16:50
226203s	Na3302	187		mg/L	1	200	93.4%	18.68942	0.1	10	186.8942	05/29/03	16:50
226203s	Ni2316	4.87		mg/L	0.05	5	97.3%	0.48665	0.005	10	4.8665	05/29/03	16:50
226203s	P_1782	0.25	U	mg/L	0.25			-0.00409	0.025	10	-0.0409	05/29/03	16:50
226203s	Pb220	5.13		mg/L	0.05	5	102.7%	0.51346	0.005	10	5.1346	05/29/03	16:50
226203s	Pd3404	0.1	U	mg/L	0.1			0.00706	0.01	10	0.0706	05/29/03	16:50
226203s	S_1820	0.25	U	mg/L	0.25			0.01040	0.025	10	0.104	05/29/03	16:50
226203s	Sb2068	4.97		mg/L	0.1	5	99.4%	0.49702	0.01	10	4.9702	05/29/03	16:50
226203s	Se196	20.9		mg/L	0.05	20	104.7%	2.09319	0.005	10	20.9319	05/29/03	16:50
226203s	Si2881	74.1		mg/L	0.25	40	104.3%	7.41188	0.025	10	74.1188	05/29/03	16:50
226203s	Sn1899	0.05	U	mg/L	0.05			0.00193	0.005	10	0.0193	05/29/03	16:50
226203s	Sr4215	0.258		mg/L	0.05			0.02580	0.005	10	0.258	05/29/03	16:50
226203s	Th2837	0.1	U	mg/L	0.1			-0.01229	0.01	10	-0.1229	05/29/03	16:50
226203s	Ti3349	0.05	U	mg/L	0.05			0.00029	0.005	10	0.0029	05/29/03	16:50
226203s	Tl1908	21.0		mg/L	0.1	20	104.8%	2.09521	0.01	10	20.9521	05/29/03	16:50
226203s	V_2924	5.05		mg/L	0.05	5	101.1%	0.50543	0.005	10	5.0543	05/29/03	16:50
226203s	W_2079	0.1	U	mg/L	0.1			0.00541	0.01	10	0.0541	05/29/03	16:50
226203s	Y_3710	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	16:50
226203s	Zn2062	5.05		mg/L	0.05	5	101.1%	0.50535	0.005	10	5.0535	05/29/03	16:50
226203s	Zr3496	0.05	U	mg/L	0.05			0.00117	0.005	10	0.0117	05/29/03	16:50
226204	Ag3280	0.05	U	mg/L	0.05			0.00027	0.005	10	0.0027	05/29/03	16:55
226204	Al3082	0.5	U	mg/L	0.5			0.00569	0.05	10	0.0569	05/29/03	16:55
226204	As1890	0.05	U	mg/L	0.05			-0.00104	0.005	10	-0.0104	05/29/03	16:55
226204	B_2496	0.25	U	mg/L	0.25			0.00325	0.025	10	0.0325	05/29/03	16:55
226204	Ba4934	0.05	U	mg/L	0.05			0.00224	0.005	10	0.0224	05/29/03	16:55
226204	Be3130	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	16:55
226204	Bi2230	0.15	U	mg/L	0.15			-0.00001	0.015	10	-0.0001	05/29/03	16:55
226204	Ca3179	400		mg/L	1.5			40.02003	0.15	10	400.2003	05/29/03	16:55

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226204	Cd2265	0.05	U	mg/L	0.05			0.00025	0.005	10	0.0025	05/29/03	16:55
226204	Co2286	0.05	U	mg/L	0.05			0.00014	0.005	10	0.0014	05/29/03	16:55
226204	Cr2677	0.05	U	mg/L	0.05			0.00155	0.005	10	0.0155	05/29/03	16:55
226204	Cu3247	0.05	U	mg/L	0.05			0.00196	0.005	10	0.0196	05/29/03	16:55
226204	Fe2714	0.6	U	mg/L	0.6			0.00815	0.06	10	0.0815	05/29/03	16:55
226204	K_7664	1	U	mg/L	1			0.01659	0.1	10	0.1659	05/29/03	16:55
226204	La3988	0.05	U	mg/L	0.05			0.00015	0.005	10	0.0015	05/29/03	16:55
226204	Li6707	0.05	U	mg/L	0.05			0.00021	0.005	10	0.0021	05/29/03	16:55
226204	Mg2790	0.5	U	mg/L	0.5			0.00832	0.05	10	0.0832	05/29/03	16:55
226204	Mn2576	0.05	U	mg/L	0.05			0.00027	0.005	10	0.0027	05/29/03	16:55
226204	Mo2020	0.05	U	mg/L	0.05			-0.00019	0.005	10	-0.0019	05/29/03	16:55
226204	Na5889	1	U	mg/L	1			0.00616	0.1	10	0.0616	05/29/03	16:55
226204	Ni2316	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	16:55
226204	P_1782	0.25	U	mg/L	0.25			0.00053	0.025	10	0.0053	05/29/03	16:55
226204	Pb220	0.05	U	mg/L	0.05			0.00035	0.005	10	0.0035	05/29/03	16:55
226204	Pd3404	0.1	U	mg/L	0.1			0.00055	0.01	10	0.0055	05/29/03	16:55
226204	S_1820	0.25	U	mg/L	0.25			0.00619	0.025	10	0.0619	05/29/03	16:55
226204	Sb2068	0.1	U	mg/L	0.1			0.00211	0.01	10	0.0211	05/29/03	16:55
226204	Se196	0.05	U	mg/L	0.05			0.00041	0.005	10	0.0041	05/29/03	16:55
226204	Si2881	32.4		mg/L	0.25			3.23893	0.025	10	32.3893	05/29/03	16:55
226204	Sn1899	0.05	U	mg/L	0.05			0.00284	0.005	10	0.0284	05/29/03	16:55
226204	Sr4215	0.255		mg/L	0.05			0.02554	0.005	10	0.2554	05/29/03	16:55
226204	Th2837	0.1	U	mg/L	0.1			0.00033	0.01	10	0.0033	05/29/03	16:55
226204	Ti3349	0.05	U	mg/L	0.05			0.00025	0.005	10	0.0025	05/29/03	16:55
226204	Tl1908	0.1	U	mg/L	0.1			-0.00219	0.01	10	-0.0219	05/29/03	16:55
226204	V_2924	0.05	U	mg/L	0.05			0.00041	0.005	10	0.0041	05/29/03	16:55
226204	W_2079	0.1	U	mg/L	0.1			0.00213	0.01	10	0.0213	05/29/03	16:55
226204	Y_3710	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	16:55
226204	Zn2062	0.05	U	mg/L	0.05			0.00167	0.005	10	0.0167	05/29/03	16:55
226204	Zr3496	0.05	U	mg/L	0.05			0.00048	0.005	10	0.0048	05/29/03	16:55
226205	Ag3280	0.05	U	mg/L	0.05			-0.00071	0.005	10	-0.0071	05/29/03	16:59
226205	Al3082	0.5	U	mg/L	0.5			0.00324	0.05	10	0.0324	05/29/03	16:59
226205	As1890	0.05	U	mg/L	0.05			-0.00181	0.005	10	-0.0181	05/29/03	16:59
226205	B_2496	0.25	U	mg/L	0.25			0.00367	0.025	10	0.0367	05/29/03	16:59
226205	Ba4934	0.05	U	mg/L	0.05			0.00201	0.005	10	0.0201	05/29/03	16:59
226205	Be3130	0.05	U	mg/L	0.05			0.00014	0.005	10	0.0014	05/29/03	16:59
226205	Bi2230	0.15	U	mg/L	0.15			-0.00285	0.015	10	-0.0285	05/29/03	16:59
226205	Ca3179	397		mg/L	1.5			39.74384	0.15	10	397.4384	05/29/03	16:59
226205	Cd2265	0.05	U	mg/L	0.05			-0.00004	0.005	10	-0.0004	05/29/03	16:59
226205	Co2286	0.05	U	mg/L	0.05			-0.00051	0.005	10	-0.0051	05/29/03	16:59

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226205	Cr2677	0.05	U	mg/L	0.05			0.00106	0.005	10	0.0106	05/29/03	16:59
226205	Cu3247	0.05	U	mg/L	0.05			0.00154	0.005	10	0.0154	05/29/03	16:59
226205	Fe2714	0.6	U	mg/L	0.6			0.00926	0.06	10	0.0926	05/29/03	16:59
226205	K_7664	1	U	mg/L	1			0.01334	0.1	10	0.1334	05/29/03	16:59
226205	La3988	0.05	U	mg/L	0.05			-0.00131	0.005	10	-0.0131	05/29/03	16:59
226205	Li6707	0.05	U	mg/L	0.05			0.00017	0.005	10	0.0017	05/29/03	16:59
226205	Mg2790	0.5	U	mg/L	0.5			0.00024	0.05	10	0.0024	05/29/03	16:59
226205	Mn2576	0.05	U	mg/L	0.05			0.00018	0.005	10	0.0018	05/29/03	16:59
226205	Mo2020	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	16:59
226205	Na5889	1	U	mg/L	1			0.01077	0.1	10	0.1077	05/29/03	16:59
226205	Ni2316	0.05	U	mg/L	0.05			0.00044	0.005	10	0.0044	05/29/03	16:59
226205	P_1782	0.25	U	mg/L	0.25			0.00100	0.025	10	0.01	05/29/03	16:59
226205	Pb220	0.05	U	mg/L	0.05			-0.00007	0.005	10	-0.0007	05/29/03	16:59
226205	Pd3404	0.1	U	mg/L	0.1			0.00046	0.01	10	0.0046	05/29/03	16:59
226205	S_1820	0.25	U	mg/L	0.25			0.00495	0.025	10	0.0495	05/29/03	16:59
226205	Sb2068	0.1	U	mg/L	0.1			-0.00242	0.01	10	-0.0242	05/29/03	16:59
226205	Se196	0.05	U	mg/L	0.05			0.00252	0.005	10	0.0252	05/29/03	16:59
226205	Si2881	32.4		mg/L	0.25			3.24348	0.025	10	32.4348	05/29/03	16:59
226205	Sn1899	0.05	U	mg/L	0.05			-0.00006	0.005	10	-0.0006	05/29/03	16:59
226205	Sr4215	0.253		mg/L	0.05			0.02530	0.005	10	0.253	05/29/03	16:59
226205	Th2837	0.1	U	mg/L	0.1			0.00449	0.01	10	0.0449	05/29/03	16:59
226205	Ti3349	0.05	U	mg/L	0.05			0.00020	0.005	10	0.002	05/29/03	16:59
226205	Tl1908	0.1	U	mg/L	0.1			-0.00117	0.01	10	-0.0117	05/29/03	16:59
226205	V_2924	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	16:59
226205	W_2079	0.1	U	mg/L	0.1			0.00188	0.01	10	0.0188	05/29/03	16:59
226205	Y_3710	0.05	U	mg/L	0.05			0.00007	0.005	10	0.0007	05/29/03	16:59
226205	Zn2062	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	16:59
226205	Zr3496	0.05	U	mg/L	0.05			0.00032	0.005	10	0.0032	05/29/03	16:59
226206	Ag3280	0.05	U	mg/L	0.05			0.00061	0.005	10	0.0061	05/29/03	17:04
226206	Al3082	0.5	U	mg/L	0.5			0.00643	0.05	10	0.0643	05/29/03	17:04
226206	As1890	0.05	U	mg/L	0.05			0.00032	0.005	10	0.0032	05/29/03	17:04
226206	B_2496	0.25	U	mg/L	0.25			0.00190	0.025	10	0.019	05/29/03	17:04
226206	Ba4934	0.114		mg/L	0.05			0.01138	0.005	10	0.1138	05/29/03	17:04
226206	Be3130	0.05	U	mg/L	0.05			0.00016	0.005	10	0.0016	05/29/03	17:04
226206	Bi2230	0.15	U	mg/L	0.15			-0.00109	0.015	10	-0.0109	05/29/03	17:04
226206	Ca3179	397		mg/L	1.5			39.72679	0.15	10	397.2679	05/29/03	17:04
226206	Cd2265	0.05	U	mg/L	0.05			0.00015	0.005	10	0.0015	05/29/03	17:04
226206	Co2286	0.05	U	mg/L	0.05			0.00053	0.005	10	0.0053	05/29/03	17:04
226206	Cr2677	0.05	U	mg/L	0.05			0.00069	0.005	10	0.0069	05/29/03	17:04
226206	Cu3247	0.05	U	mg/L	0.05			0.00122	0.005	10	0.0122	05/29/03	17:04

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226206	Fe2714	0.6	U	mg/L	0.6			0.02368	0.06	10	0.2368	05/29/03	17:04
226206	K_7664	1	U	mg/L	1			0.02237	0.1	10	0.2237	05/29/03	17:04
226206	La3988	0.05	U	mg/L	0.05			0.00059	0.005	10	0.0059	05/29/03	17:04
226206	Li6707	0.05	U	mg/L	0.05			0.00015	0.005	10	0.0015	05/29/03	17:04
226206	Mg2790	0.5	U	mg/L	0.5			0.00811	0.05	10	0.0811	05/29/03	17:04
226206	Mn2576	0.05	U	mg/L	0.05			0.00044	0.005	10	0.0044	05/29/03	17:04
226206	Mo2020	0.05	U	mg/L	0.05			-0.00023	0.005	10	-0.0023	05/29/03	17:04
226206	Na5889	1	U	mg/L	1			0.02208	0.1	10	0.2208	05/29/03	17:04
226206	Ni2316	0.05	U	mg/L	0.05			0.00055	0.005	10	0.0055	05/29/03	17:04
226206	P_1782	0.25	U	mg/L	0.25			-0.00116	0.025	10	-0.0116	05/29/03	17:04
226206	Pb220	0.05	U	mg/L	0.05			0.00164	0.005	10	0.0164	05/29/03	17:04
226206	Pd3404	0.1	U	mg/L	0.1			0.00193	0.01	10	0.0193	05/29/03	17:04
226206	S_1820	0.25	U	mg/L	0.25			0.00632	0.025	10	0.0632	05/29/03	17:04
226206	Sb2068	0.1	U	mg/L	0.1			0.00149	0.01	10	0.0149	05/29/03	17:04
226206	Se196	0.05	U	mg/L	0.05			0.00043	0.005	10	0.0043	05/29/03	17:04
226206	Si2881	31.9		mg/L	0.25			3.18504	0.025	10	31.8504	05/29/03	17:04
226206	Sn1899	0.05	U	mg/L	0.05			0.00093	0.005	10	0.0093	05/29/03	17:04
226206	Sr4215	0.258		mg/L	0.05			0.02578	0.005	10	0.2578	05/29/03	17:04
226206	Th2837	0.1	U	mg/L	0.1			0.00025	0.01	10	0.0025	05/29/03	17:04
226206	Ti3349	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	17:04
226206	Tl1908	0.1	U	mg/L	0.1			0.00236	0.01	10	0.0236	05/29/03	17:04
226206	V_2924	0.05	U	mg/L	0.05			-0.00008	0.005	10	-0.0008	05/29/03	17:04
226206	W_2079	0.1	U	mg/L	0.1			0.00233	0.01	10	0.0233	05/29/03	17:04
226206	Y_3710	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	17:04
226206	Zn2062	0.05	U	mg/L	0.05			0.00045	0.005	10	0.0045	05/29/03	17:04
226206	Zr3496	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	17:04
226207	Ag3280	0.05	U	mg/L	0.05			-0.00025	0.005	10	-0.0025	05/29/03	17:09
226207	Al3082	0.5	U	mg/L	0.5			-0.00248	0.05	10	-0.0248	05/29/03	17:09
226207	As1890	0.05	U	mg/L	0.05			0.00029	0.005	10	0.0029	05/29/03	17:09
226207	B_2496	0.25	U	mg/L	0.25			0.00124	0.025	10	0.0124	05/29/03	17:09
226207	Ba4934	0.452		mg/L	0.05			0.04519	0.005	10	0.4519	05/29/03	17:09
226207	Be3130	0.05	U	mg/L	0.05			0.00014	0.005	10	0.0014	05/29/03	17:09
226207	Bi2230	0.15	U	mg/L	0.15			-0.00286	0.015	10	-0.0286	05/29/03	17:09
226207	Ca3179	458		mg/L	1.5			45.76093	0.15	10	457.6093	05/29/03	17:09
226207	Cd2265	0.05	U	mg/L	0.05			0.00024	0.005	10	0.0024	05/29/03	17:09
226207	Co2286	0.05	U	mg/L	0.05			0.00122	0.005	10	0.0122	05/29/03	17:09
226207	Cr2677	0.05	U	mg/L	0.05			0.00041	0.005	10	0.0041	05/29/03	17:09
226207	Cu3247	0.05	U	mg/L	0.05			0.00175	0.005	10	0.0175	05/29/03	17:09
226207	Fe2714	0.6	U	mg/L	0.6			0.00054	0.06	10	0.0054	05/29/03	17:09
226207	K_7664	1	U	mg/L	1			0.00873	0.1	10	0.0873	05/29/03	17:09

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226207	La3988	0.05	U	mg/L	0.05				-0.00053	0.005	10	-0.0053	05/29/03	17:09
226207	Li6707	0.05	U	mg/L	0.05				0.00011	0.005	10	0.0011	05/29/03	17:09
226207	Mg2790	0.5	U	mg/L	0.5				0.00088	0.05	10	0.0088	05/29/03	17:09
226207	Mn2576	0.05	U	mg/L	0.05				0.00121	0.005	10	0.0121	05/29/03	17:09
226207	Mo2020	0.05	U	mg/L	0.05				-0.00007	0.005	10	-0.0007	05/29/03	17:09
226207	Na5889	1	U	mg/L	1				0.01853	0.1	10	0.1853	05/29/03	17:09
226207	Ni2316	0.05	U	mg/L	0.05				0.00150	0.005	10	0.015	05/29/03	17:09
226207	P_1782	0.25	U	mg/L	0.25				0.00365	0.025	10	0.0365	05/29/03	17:09
226207	Pb220	0.05	U	mg/L	0.05				0.00003	0.005	10	0.0003	05/29/03	17:09
226207	Pd3404	0.1	U	mg/L	0.1				-0.00043	0.01	10	-0.0043	05/29/03	17:09
226207	S_1820	0.25	U	mg/L	0.25				0.01488	0.025	10	0.1488	05/29/03	17:09
226207	Sb2068	0.1	U	mg/L	0.1				-0.00077	0.01	10	-0.0077	05/29/03	17:09
226207	Se196	0.05	U	mg/L	0.05				0.00173	0.005	10	0.0173	05/29/03	17:09
226207	Si2881	35.7		mg/L	0.25				3.57450	0.025	10	35.745	05/29/03	17:09
226207	Sn1899	0.05	U	mg/L	0.05				0.00008	0.005	10	0.0008	05/29/03	17:09
226207	Sr4215	0.306		mg/L	0.05				0.03057	0.005	10	0.3057	05/29/03	17:09
226207	Th2837	0.1	U	mg/L	0.1				-0.00005	0.01	10	-0.0005	05/29/03	17:09
226207	Ti3349	0.05	U	mg/L	0.05				-0.00005	0.005	10	-0.0005	05/29/03	17:09
226207	Tl1908	0.1	U	mg/L	0.1				-0.00173	0.01	10	-0.0173	05/29/03	17:09
226207	V_2924	0.05	U	mg/L	0.05				-0.00015	0.005	10	-0.0015	05/29/03	17:09
226207	W_2079	0.1	U	mg/L	0.1				-0.00051	0.01	10	-0.0051	05/29/03	17:09
226207	Y_3710	0.05	U	mg/L	0.05				0.00006	0.005	10	0.0006	05/29/03	17:09
226207	Zn2062	0.05	U	mg/L	0.05				0.00040	0.005	10	0.004	05/29/03	17:09
226207	Zr3496	0.05	U	mg/L	0.05				-0.00036	0.005	10	-0.0036	05/29/03	17:09
226208	Ag3280	0.05	U	mg/L	0.05				-0.00070	0.005	10	-0.007	05/29/03	17:28
226208	Al3082	0.5	U	mg/L	0.5				-0.00157	0.05	10	-0.0157	05/29/03	17:28
226208	As1890	0.05	U	mg/L	0.05				-0.00102	0.005	10	-0.0102	05/29/03	17:28
226208	B_2496	0.25	U	mg/L	0.25				0.00500	0.025	10	0.05	05/29/03	17:28
226208	Ba4934	0.217		mg/L	0.05				0.02166	0.005	10	0.2166	05/29/03	17:28
226208	Be3130	0.05	U	mg/L	0.05				0.00016	0.005	10	0.0016	05/29/03	17:28
226208	Bi2230	0.15	U	mg/L	0.15				-0.00266	0.015	10	-0.0266	05/29/03	17:28
226208	Ca3179	394		mg/L	1.5				39.39859	0.15	10	393.9859	05/29/03	17:28
226208	Cd2265	0.05	U	mg/L	0.05				0.00006	0.005	10	0.0006	05/29/03	17:28
226208	Co2286	0.05	U	mg/L	0.05				-0.00058	0.005	10	-0.0058	05/29/03	17:28
226208	Cr2677	0.05	U	mg/L	0.05				-0.00004	0.005	10	-0.0004	05/29/03	17:28
226208	Cu3247	0.05	U	mg/L	0.05				0.00095	0.005	10	0.0095	05/29/03	17:28
226208	Fe2714	0.6	U	mg/L	0.6				0.00584	0.06	10	0.0584	05/29/03	17:28
226208	K_7664	1	U	mg/L	1				0.03060	0.1	10	0.306	05/29/03	17:28
226208	La3988	0.05	U	mg/L	0.05				-0.00073	0.005	10	-0.0073	05/29/03	17:28
226208	Li6707	0.05	U	mg/L	0.05				0.00017	0.005	10	0.0017	05/29/03	17:28

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226208	Mg2790	0.5	U	mg/L	0.5			0.00141	0.05	10	0.0141	05/29/03	17:28
226208	Mn2576	0.05	U	mg/L	0.05			0.00057	0.005	10	0.0057	05/29/03	17:28
226208	Mo2020	0.05	U	mg/L	0.05			0.00132	0.005	10	0.0132	05/29/03	17:28
226208	Na5889	1	U	mg/L	1			0.04086	0.1	10	0.4086	05/29/03	17:28
226208	Ni2316	0.05	U	mg/L	0.05			-0.00020	0.005	10	-0.002	05/29/03	17:28
226208	P_1782	0.25	U	mg/L	0.25			0.00149	0.025	10	0.0149	05/29/03	17:28
226208	Pb220	0.05	U	mg/L	0.05			0.00126	0.005	10	0.0126	05/29/03	17:28
226208	Pd3404	0.1	U	mg/L	0.1			-0.00120	0.01	10	-0.012	05/29/03	17:28
226208	S_1820	0.25	U	mg/L	0.25			0.00537	0.025	10	0.0537	05/29/03	17:28
226208	Sb2068	0.1	U	mg/L	0.1			-0.00336	0.01	10	-0.0336	05/29/03	17:28
226208	Se196	0.05	U	mg/L	0.05			0.00236	0.005	10	0.0236	05/29/03	17:28
226208	Si2881	31.6		mg/L	0.25			3.16349	0.025	10	31.6349	05/29/03	17:28
226208	Sn1899	0.05	U	mg/L	0.05			-0.00140	0.005	10	-0.014	05/29/03	17:28
226208	Sr4215	0.262		mg/L	0.05			0.02615	0.005	10	0.2615	05/29/03	17:28
226208	Th2837	0.1	U	mg/L	0.1			-0.00017	0.01	10	-0.0017	05/29/03	17:28
226208	Ti3349	0.05	U	mg/L	0.05			-0.00010	0.005	10	-0.001	05/29/03	17:28
226208	Tl1908	0.1	U	mg/L	0.1			0.00099	0.01	10	0.0099	05/29/03	17:28
226208	V_2924	0.05	U	mg/L	0.05			-0.00059	0.005	10	-0.0059	05/29/03	17:28
226208	W_2079	0.1	U	mg/L	0.1			0.00055	0.01	10	0.0055	05/29/03	17:28
226208	Y_3710	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	17:28
226208	Zn2062	0.05	U	mg/L	0.05			0.00029	0.005	10	0.0029	05/29/03	17:28
226208	Zr3496	0.05	U	mg/L	0.05			-0.00017	0.005	10	-0.0017	05/29/03	17:28
226209	Ag3280	0.05	U	mg/L	0.05			0.00037	0.005	10	0.0037	05/29/03	17:33
226209	Al3082	0.5	U	mg/L	0.5			0.00447	0.05	10	0.0447	05/29/03	17:33
226209	As1890	0.05	U	mg/L	0.05			0.00111	0.005	10	0.0111	05/29/03	17:33
226209	B_2496	0.25	U	mg/L	0.25			0.00381	0.025	10	0.0381	05/29/03	17:33
226209	Ba4934	0.304		mg/L	0.05			0.03043	0.005	10	0.3043	05/29/03	17:33
226209	Be3130	0.05	U	mg/L	0.05			0.00017	0.005	10	0.0017	05/29/03	17:33
226209	Bi2230	0.15	U	mg/L	0.15			0.00388	0.015	10	0.0388	05/29/03	17:33
226209	Ca3179	409		mg/L	1.5			40.87588	0.15	10	408.7588	05/29/03	17:33
226209	Cd2265	0.05	U	mg/L	0.05			0.00025	0.005	10	0.0025	05/29/03	17:33
226209	Co2286	0.05	U	mg/L	0.05			0.00039	0.005	10	0.0039	05/29/03	17:33
226209	Cr2677	0.05	U	mg/L	0.05			0.00110	0.005	10	0.011	05/29/03	17:33
226209	Cu3247	0.05	U	mg/L	0.05			0.00148	0.005	10	0.0148	05/29/03	17:33
226209	Fe2714	0.6	U	mg/L	0.6			0.01603	0.06	10	0.1603	05/29/03	17:33
226209	K_7664	1	U	mg/L	1			0.02982	0.1	10	0.2982	05/29/03	17:33
226209	La3988	0.05	U	mg/L	0.05			0.00076	0.005	10	0.0076	05/29/03	17:33
226209	Li6707	0.05	U	mg/L	0.05			0.00017	0.005	10	0.0017	05/29/03	17:33
226209	Mg2790	0.5	U	mg/L	0.5			0.00875	0.05	10	0.0875	05/29/03	17:33
226209	Mn2576	0.05	U	mg/L	0.05			0.00078	0.005	10	0.0078	05/29/03	17:33

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226209	Mo2020	0.05	U	mg/L	0.05			0.00086	0.005	10	0.0086	05/29/03	17:33
226209	Na5889	1	U	mg/L	1			0.00984	0.1	10	0.0984	05/29/03	17:33
226209	Ni2316	0.05	U	mg/L	0.05			0.00009	0.005	10	0.0009	05/29/03	17:33
226209	P_1782	0.25	U	mg/L	0.25			-0.00268	0.025	10	-0.0268	05/29/03	17:33
226209	Pb220	0.05	U	mg/L	0.05			-0.00071	0.005	10	-0.0071	05/29/03	17:33
226209	Pd3404	0.1	U	mg/L	0.1			0.00045	0.01	10	0.0045	05/29/03	17:33
226209	S_1820	0.25	U	mg/L	0.25			0.00851	0.025	10	0.0851	05/29/03	17:33
226209	Sb2068	0.1	U	mg/L	0.1			-0.00007	0.01	10	-0.0007	05/29/03	17:33
226209	Se196	0.05	U	mg/L	0.05			0.00160	0.005	10	0.016	05/29/03	17:33
226209	Si2881	32.1		mg/L	0.25			3.20866	0.025	10	32.0866	05/29/03	17:33
226209	Sn1899	0.05	U	mg/L	0.05			0.00182	0.005	10	0.0182	05/29/03	17:33
226209	Sr4215	0.263		mg/L	0.05			0.02630	0.005	10	0.263	05/29/03	17:33
226209	Th2837	0.1	U	mg/L	0.1			0.00000	0.01	10	0	05/29/03	17:33
226209	Ti3349	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	17:33
226209	Tl1908	0.1	U	mg/L	0.1			0.00078	0.01	10	0.0078	05/29/03	17:33
226209	V_2924	0.05	U	mg/L	0.05			-0.00024	0.005	10	-0.0024	05/29/03	17:33
226209	W_2079	0.1	U	mg/L	0.1			0.00216	0.01	10	0.0216	05/29/03	17:33
226209	Y_3710	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	17:33
226209	Zn2062	0.05	U	mg/L	0.05			0.00175	0.005	10	0.0175	05/29/03	17:33
226209	Zr3496	0.05	U	mg/L	0.05			0.00015	0.005	10	0.0015	05/29/03	17:33
226210	Ag3280	0.05	U	mg/L	0.05			-0.00080	0.005	10	-0.008	05/29/03	17:38
226210	Al3082	0.5	U	mg/L	0.5			-0.00193	0.05	10	-0.0193	05/29/03	17:38
226210	As1890	0.05	U	mg/L	0.05			0.00164	0.005	10	0.0164	05/29/03	17:38
226210	B_2496	0.25	U	mg/L	0.25			0.00293	0.025	10	0.0293	05/29/03	17:38
226210	Ba4934	0.371		mg/L	0.05			0.03713	0.005	10	0.3713	05/29/03	17:38
226210	Be3130	0.05	U	mg/L	0.05			0.00017	0.005	10	0.0017	05/29/03	17:38
226210	Bi2230	0.15	U	mg/L	0.15			-0.00147	0.015	10	-0.0147	05/29/03	17:38
226210	Ca3179	412		mg/L	1.5			41.24689	0.15	10	412.4689	05/29/03	17:38
226210	Cd2265	0.05	U	mg/L	0.05			-0.00004	0.005	10	-0.0004	05/29/03	17:38
226210	Co2286	0.05	U	mg/L	0.05			0.00150	0.005	10	0.015	05/29/03	17:38
226210	Cr2677	0.05	U	mg/L	0.05			0.00080	0.005	10	0.008	05/29/03	17:38
226210	Cu3247	0.05	U	mg/L	0.05			0.00114	0.005	10	0.0114	05/29/03	17:38
226210	Fe2714	0.6	U	mg/L	0.6			0.00440	0.06	10	0.044	05/29/03	17:38
226210	K_7664	1	U	mg/L	1			0.04214	0.1	10	0.4214	05/29/03	17:38
226210	La3988	0.05	U	mg/L	0.05			-0.00091	0.005	10	-0.0091	05/29/03	17:38
226210	Li6707	0.05	U	mg/L	0.05			0.00016	0.005	10	0.0016	05/29/03	17:38
226210	Mg2790	0.5	U	mg/L	0.5			-0.00071	0.05	10	-0.0071	05/29/03	17:38
226210	Mn2576	0.05	U	mg/L	0.05			0.00080	0.005	10	0.008	05/29/03	17:38
226210	Mo2020	0.05	U	mg/L	0.05			0.00038	0.005	10	0.0038	05/29/03	17:38
226210	Na5889	1	U	mg/L	1			0.01986	0.1	10	0.1986	05/29/03	17:38

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226210	Ni2316	0.05	U	mg/L	0.05			0.00070	0.005	10	0.007	05/29/03	17:38
226210	P_1782	0.25	U	mg/L	0.25			0.00095	0.025	10	0.0095	05/29/03	17:38
226210	Pb220	0.05	U	mg/L	0.05			0.00043	0.005	10	0.0043	05/29/03	17:38
226210	Pd3404	0.1	U	mg/L	0.1			-0.00097	0.01	10	-0.0097	05/29/03	17:38
226210	S_1820	0.25	U	mg/L	0.25			0.00324	0.025	10	0.0324	05/29/03	17:38
226210	Sb2068	0.1	U	mg/L	0.1			0.00091	0.01	10	0.0091	05/29/03	17:38
226210	Se196	0.05	U	mg/L	0.05			0.00094	0.005	10	0.0094	05/29/03	17:38
226210	Si2881	32.4		mg/L	0.25			3.23784	0.025	10	32.3784	05/29/03	17:38
226210	Sn1899	0.05	U	mg/L	0.05			-0.00025	0.005	10	-0.0025	05/29/03	17:38
226210	Sr4215	0.269		mg/L	0.05			0.02691	0.005	10	0.2691	05/29/03	17:38
226210	Th2837	0.1	U	mg/L	0.1			0.00131	0.01	10	0.0131	05/29/03	17:38
226210	Ti3349	0.05	U	mg/L	0.05			0.00006	0.005	10	0.0006	05/29/03	17:38
226210	Tl1908	0.1	U	mg/L	0.1			-0.00043	0.01	10	-0.0043	05/29/03	17:38
226210	V_2924	0.05	U	mg/L	0.05			-0.00036	0.005	10	-0.0036	05/29/03	17:38
226210	W_2079	0.1	U	mg/L	0.1			0.00055	0.01	10	0.0055	05/29/03	17:38
226210	Y_3710	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	17:38
226210	Zn2062	0.05	U	mg/L	0.05			0.00043	0.005	10	0.0043	05/29/03	17:38
226210	Zr3496	0.05	U	mg/L	0.05			-0.00025	0.005	10	-0.0025	05/29/03	17:38
226211	Ag3280	0.05	U	mg/L	0.05			-0.00036	0.005	10	-0.0036	05/29/03	17:42
226211	Al3082	0.5	U	mg/L	0.5			-0.00341	0.05	10	-0.0341	05/29/03	17:42
226211	As1890	0.05	U	mg/L	0.05			-0.00028	0.005	10	-0.0028	05/29/03	17:42
226211	B_2496	0.25	U	mg/L	0.25			0.00325	0.025	10	0.0325	05/29/03	17:42
226211	Ba4934	0.405		mg/L	0.05			0.04052	0.005	10	0.4052	05/29/03	17:42
226211	Be3130	0.05	U	mg/L	0.05			0.00020	0.005	10	0.002	05/29/03	17:42
226211	Bi2230	0.15	U	mg/L	0.15			-0.00085	0.015	10	-0.0085	05/29/03	17:42
226211	Ca3179	416		mg/L	1.5			41.60294	0.15	10	416.0294	05/29/03	17:42
226211	Cd2265	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	17:42
226211	Co2286	0.05	U	mg/L	0.05			0.00144	0.005	10	0.0144	05/29/03	17:42
226211	Cr2677	0.05	U	mg/L	0.05			0.00181	0.005	10	0.0181	05/29/03	17:42
226211	Cu3247	0.05	U	mg/L	0.05			0.00288	0.005	10	0.0288	05/29/03	17:42
226211	Fe2714	0.6	U	mg/L	0.6			-0.01477	0.06	10	-0.1477	05/29/03	17:42
226211	K_7664	1	U	mg/L	1			0.01309	0.1	10	0.1309	05/29/03	17:42
226211	La3988	0.05	U	mg/L	0.05			-0.00068	0.005	10	-0.0068	05/29/03	17:42
226211	Li6707	0.05	U	mg/L	0.05			0.00009	0.005	10	0.0009	05/29/03	17:42
226211	Mg2790	0.5	U	mg/L	0.5			-0.00218	0.05	10	-0.0218	05/29/03	17:42
226211	Mn2576	0.05	U	mg/L	0.05			0.00100	0.005	10	0.01	05/29/03	17:42
226211	Mo2020	0.05	U	mg/L	0.05			0.00059	0.005	10	0.0059	05/29/03	17:42
226211	Na5889	1	U	mg/L	1			0.02437	0.1	10	0.2437	05/29/03	17:42
226211	Ni2316	0.05	U	mg/L	0.05			0.00148	0.005	10	0.0148	05/29/03	17:42
226211	P_1782	0.25	U	mg/L	0.25			-0.00278	0.025	10	-0.0278	05/29/03	17:42

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226211	Pb220	0.05	U	mg/L	0.05				0.00037	0.005	10	0.0037	05/29/03	17:42
226211	Pd3404	0.1	U	mg/L	0.1				-0.00501	0.01	10	-0.0501	05/29/03	17:42
226211	S_1820	0.25	U	mg/L	0.25				0.00674	0.025	10	0.0674	05/29/03	17:42
226211	Sb2068	0.1	U	mg/L	0.1				0.00324	0.01	10	0.0324	05/29/03	17:42
226211	Se196	0.05	U	mg/L	0.05				0.00104	0.005	10	0.0104	05/29/03	17:42
226211	Si2881	32.9		mg/L	0.25				3.28600	0.025	10	32.86	05/29/03	17:42
226211	Sn1899	0.05	U	mg/L	0.05				0.00050	0.005	10	0.005	05/29/03	17:42
226211	Sr4215	0.275		mg/L	0.05				0.02746	0.005	10	0.2746	05/29/03	17:42
226211	Th2837	0.1	U	mg/L	0.1				0.00407	0.01	10	0.0407	05/29/03	17:42
226211	Ti3349	0.05	U	mg/L	0.05				0.00011	0.005	10	0.0011	05/29/03	17:42
226211	Tl1908	0.1	U	mg/L	0.1				-0.00144	0.01	10	-0.0144	05/29/03	17:42
226211	V_2924	0.05	U	mg/L	0.05				-0.00008	0.005	10	-0.0008	05/29/03	17:42
226211	W_2079	0.1	U	mg/L	0.1				0.00275	0.01	10	0.0275	05/29/03	17:42
226211	Y_3710	0.05	U	mg/L	0.05				0.00019	0.005	10	0.0019	05/29/03	17:42
226211	Zn2062	0.05	U	mg/L	0.05				0.00216	0.005	10	0.0216	05/29/03	17:42
226211	Zr3496	0.05	U	mg/L	0.05				0.00042	0.005	10	0.0042	05/29/03	17:42
226212	Ag3280	0.05	U	mg/L	0.05				0.00041	0.005	10	0.0041	05/29/03	17:47
226212	Al3082	0.5	U	mg/L	0.5				0.00069	0.05	10	0.0069	05/29/03	17:47
226212	As1890	0.05	U	mg/L	0.05				-0.00035	0.005	10	-0.0035	05/29/03	17:47
226212	B_2496	0.25	U	mg/L	0.25				0.00304	0.025	10	0.0304	05/29/03	17:47
226212	Ba4934	0.417		mg/L	0.05				0.04174	0.005	10	0.4174	05/29/03	17:47
226212	Be3130	0.05	U	mg/L	0.05				0.00020	0.005	10	0.002	05/29/03	17:47
226212	Bi2230	0.15	U	mg/L	0.15				0.00016	0.015	10	0.0016	05/29/03	17:47
226212	Ca3179	423		mg/L	1.5				42.27532	0.15	10	422.7532	05/29/03	17:47
226212	Cd2265	0.05	U	mg/L	0.05				0.00028	0.005	10	0.0028	05/29/03	17:47
226212	Co2286	0.05	U	mg/L	0.05				0.00029	0.005	10	0.0029	05/29/03	17:47
226212	Cr2677	0.05	U	mg/L	0.05				0.00099	0.005	10	0.0099	05/29/03	17:47
226212	Cu3247	0.05	U	mg/L	0.05				0.00277	0.005	10	0.0277	05/29/03	17:47
226212	Fe2714	0.6	U	mg/L	0.6				0.02043	0.06	10	0.2043	05/29/03	17:47
226212	K_7664	1	U	mg/L	1				0.09394	0.1	10	0.9394	05/29/03	17:47
226212	La3988	0.05	U	mg/L	0.05				0.00038	0.005	10	0.0038	05/29/03	17:47
226212	Li6707	0.05	U	mg/L	0.05				0.00017	0.005	10	0.0017	05/29/03	17:47
226212	Mg2790	0.5	U	mg/L	0.5				0.00935	0.05	10	0.0935	05/29/03	17:47
226212	Mn2576	0.05	U	mg/L	0.05				0.00153	0.005	10	0.0153	05/29/03	17:47
226212	Mo2020	0.05	U	mg/L	0.05				-0.00009	0.005	10	-0.0009	05/29/03	17:47
226212	Na5889	1	U	mg/L	1				0.02041	0.1	10	0.2041	05/29/03	17:47
226212	Ni2316	0.05	U	mg/L	0.05				0.00106	0.005	10	0.0106	05/29/03	17:47
226212	P_1782	0.25	U	mg/L	0.25				0.01257	0.025	10	0.1257	05/29/03	17:47
226212	Pb220	0.05	U	mg/L	0.05				-0.00002	0.005	10	-0.0002	05/29/03	17:47
226212	Pd3404	0.1	U	mg/L	0.1				0.00273	0.01	10	0.0273	05/29/03	17:47

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226212	S_1820	0.25	U	mg/L	0.25			0.00867	0.025	10	0.0867	05/29/03	17:47
226212	Sb2068	0.1	U	mg/L	0.1			0.00351	0.01	10	0.0351	05/29/03	17:47
226212	Se196	0.05	U	mg/L	0.05			-0.00033	0.005	10	-0.0033	05/29/03	17:47
226212	Si2881	33.0		mg/L	0.25			3.30122	0.025	10	33.0122	05/29/03	17:47
226212	Sn1899	0.05	U	mg/L	0.05			0.00114	0.005	10	0.0114	05/29/03	17:47
226212	Sr4215	0.279		mg/L	0.05			0.02786	0.005	10	0.2786	05/29/03	17:47
226212	Th2837	0.1	U	mg/L	0.1			0.00247	0.01	10	0.0247	05/29/03	17:47
226212	Ti3349	0.05	U	mg/L	0.05			0.00033	0.005	10	0.0033	05/29/03	17:47
226212	Tl1908	0.1	U	mg/L	0.1			0.00126	0.01	10	0.0126	05/29/03	17:47
226212	V_2924	0.05	U	mg/L	0.05			-0.00009	0.005	10	-0.0009	05/29/03	17:47
226212	W_2079	0.1	U	mg/L	0.1			0.00200	0.01	10	0.02	05/29/03	17:47
226212	Y_3710	0.05	U	mg/L	0.05			0.00018	0.005	10	0.0018	05/29/03	17:47
226212	Zn2062	0.05	U	mg/L	0.05			0.00038	0.005	10	0.0038	05/29/03	17:47
226212	Zr3496	0.05	U	mg/L	0.05			0.00095	0.005	10	0.0095	05/29/03	17:47
226213	Ag3280	0.05	U	mg/L	0.05			0.00006	0.005	10	0.0006	05/29/03	17:52
226213	Al3082	0.5	U	mg/L	0.5			-0.00073	0.05	10	-0.0073	05/29/03	17:52
226213	As1890	0.05	U	mg/L	0.05			-0.00090	0.005	10	-0.009	05/29/03	17:52
226213	B_2496	0.25	U	mg/L	0.25			0.00147	0.025	10	0.0147	05/29/03	17:52
226213	Ba4934	0.430		mg/L	0.05			0.04299	0.005	10	0.4299	05/29/03	17:52
226213	Be3130	0.05	U	mg/L	0.05			0.00018	0.005	10	0.0018	05/29/03	17:52
226213	Bi2230	0.15	U	mg/L	0.15			0.00058	0.015	10	0.0058	05/29/03	17:52
226213	Ca3179	431		mg/L	1.5			43.13865	0.15	10	431.3865	05/29/03	17:52
226213	Cd2265	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	17:52
226213	Co2286	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	17:52
226213	Cr2677	0.05	U	mg/L	0.05			0.00014	0.005	10	0.0014	05/29/03	17:52
226213	Cu3247	0.05	U	mg/L	0.05			0.00072	0.005	10	0.0072	05/29/03	17:52
226213	Fe2714	0.6	U	mg/L	0.6			0.01229	0.06	10	0.1229	05/29/03	17:52
226213	K_7664	1	U	mg/L	1			0.03029	0.1	10	0.3029	05/29/03	17:52
226213	La3988	0.05	U	mg/L	0.05			-0.00031	0.005	10	-0.0031	05/29/03	17:52
226213	Li6707	0.05	U	mg/L	0.05			0.00014	0.005	10	0.0014	05/29/03	17:52
226213	Mg2790	0.5	U	mg/L	0.5			0.00504	0.05	10	0.0504	05/29/03	17:52
226213	Mn2576	0.05	U	mg/L	0.05			0.00091	0.005	10	0.0091	05/29/03	17:52
226213	Mo2020	0.05	U	mg/L	0.05			-0.00024	0.005	10	-0.0024	05/29/03	17:52
226213	Na5889	1	U	mg/L	1			0.02738	0.1	10	0.2738	05/29/03	17:52
226213	Ni2316	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	17:52
226213	P_1782	0.25	U	mg/L	0.25			-0.00341	0.025	10	-0.0341	05/29/03	17:52
226213	Pb220	0.05	U	mg/L	0.05			0.00108	0.005	10	0.0108	05/29/03	17:52
226213	Pd3404	0.1	U	mg/L	0.1			0.00146	0.01	10	0.0146	05/29/03	17:52
226213	S_1820	0.25	U	mg/L	0.25			0.01414	0.025	10	0.1414	05/29/03	17:52
226213	Sb2068	0.1	U	mg/L	0.1			0.00088	0.01	10	0.0088	05/29/03	17:52

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226213	Se196	0.05	U	mg/L	0.05			0.00035	0.005	10	0.0035	05/29/03	17:52
226213	Si2881	33.8		mg/L	0.25			3.38410	0.025	10	33.841	05/29/03	17:52
226213	Sn1899	0.05	U	mg/L	0.05			-0.00006	0.005	10	-0.0006	05/29/03	17:52
226213	Sr4215	0.282		mg/L	0.05			0.02823	0.005	10	0.2823	05/29/03	17:52
226213	Th2837	0.1	U	mg/L	0.1			-0.00199	0.01	10	-0.0199	05/29/03	17:52
226213	Ti3349	0.05	U	mg/L	0.05			-0.00009	0.005	10	-0.0009	05/29/03	17:52
226213	Tl1908	0.1	U	mg/L	0.1			0.00149	0.01	10	0.0149	05/29/03	17:52
226213	V_2924	0.05	U	mg/L	0.05			-0.00076	0.005	10	-0.0076	05/29/03	17:52
226213	W_2079	0.1	U	mg/L	0.1			-0.00037	0.01	10	-0.0037	05/29/03	17:52
226213	Y_3710	0.05	U	mg/L	0.05			-0.00008	0.005	10	-0.0008	05/29/03	17:52
226213	Zn2062	0.05	U	mg/L	0.05			0.00023	0.005	10	0.0023	05/29/03	17:52
226213	Zr3496	0.05	U	mg/L	0.05			-0.00034	0.005	10	-0.0034	05/29/03	17:52
226214	Ag3280	0.05	U	mg/L	0.05			-0.00063	0.005	10	-0.0063	05/29/03	17:56
226214	Al3082	0.5	U	mg/L	0.5			0.01708	0.05	10	0.1708	05/29/03	17:56
226214	As1890	0.05	U	mg/L	0.05			-0.00194	0.005	10	-0.0194	05/29/03	17:56
226214	B_2496	0.25	U	mg/L	0.25			0.00313	0.025	10	0.0313	05/29/03	17:56
226214	Ba4934	0.438		mg/L	0.05			0.04378	0.005	10	0.4378	05/29/03	17:56
226214	Be3130	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	17:56
226214	Bi2230	0.15	U	mg/L	0.15			-0.00265	0.015	10	-0.0265	05/29/03	17:56
226214	Ca3179	437		mg/L	1.5			43.65366	0.15	10	436.5366	05/29/03	17:56
226214	Cd2265	0.05	U	mg/L	0.05			0.00010	0.005	10	0.001	05/29/03	17:56
226214	Co2286	0.05	U	mg/L	0.05			-0.00021	0.005	10	-0.0021	05/29/03	17:56
226214	Cr2677	0.05	U	mg/L	0.05			0.00165	0.005	10	0.0165	05/29/03	17:56
226214	Cu3247	0.05	U	mg/L	0.05			0.00201	0.005	10	0.0201	05/29/03	17:56
226214	Fe2714	0.6	U	mg/L	0.6			0.00071	0.06	10	0.0071	05/29/03	17:56
226214	K_7664	1	U	mg/L	1			0.00841	0.1	10	0.0841	05/29/03	17:56
226214	La3988	0.05	U	mg/L	0.05			-0.00078	0.005	10	-0.0078	05/29/03	17:56
226214	Li6707	0.05	U	mg/L	0.05			0.00008	0.005	10	0.0008	05/29/03	17:56
226214	Mg2790	0.5	U	mg/L	0.5			0.00051	0.05	10	0.0051	05/29/03	17:56
226214	Mn2576	0.05	U	mg/L	0.05			0.00129	0.005	10	0.0129	05/29/03	17:56
226214	Mo2020	0.05	U	mg/L	0.05			-0.00063	0.005	10	-0.0063	05/29/03	17:56
226214	Na5889	1	U	mg/L	1			0.02601	0.1	10	0.2601	05/29/03	17:56
226214	Ni2316	0.05	U	mg/L	0.05			0.00101	0.005	10	0.0101	05/29/03	17:56
226214	P_1782	0.25	U	mg/L	0.25			0.00007	0.025	10	0.0007	05/29/03	17:56
226214	Pb220	0.05	U	mg/L	0.05			0.00087	0.005	10	0.0087	05/29/03	17:56
226214	Pd3404	0.1	U	mg/L	0.1			-0.00158	0.01	10	-0.0158	05/29/03	17:56
226214	S_1820	0.25	U	mg/L	0.25			0.01223	0.025	10	0.1223	05/29/03	17:56
226214	Sb2068	0.1	U	mg/L	0.1			0.00365	0.01	10	0.0365	05/29/03	17:56
226214	Se196	0.05	U	mg/L	0.05			0.00186	0.005	10	0.0186	05/29/03	17:56
226214	Si2881	34.2		mg/L	0.25			3.42255	0.025	10	34.2255	05/29/03	17:56

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226214	Sn1899	0.05	U	mg/L	0.05			0.00198	0.005	10	0.0198	05/29/03	17:56
226214	Sr4215	0.288		mg/L	0.05			0.02881	0.005	10	0.2881	05/29/03	17:56
226214	Th2837	0.1	U	mg/L	0.1			0.00419	0.01	10	0.0419	05/29/03	17:56
226214	Ti3349	0.05	U	mg/L	0.05			0.00034	0.005	10	0.0034	05/29/03	17:56
226214	Tl1908	0.1	U	mg/L	0.1			-0.00114	0.01	10	-0.0114	05/29/03	17:56
226214	V_2924	0.05	U	mg/L	0.05			0.00051	0.005	10	0.0051	05/29/03	17:56
226214	W_2079	0.1	U	mg/L	0.1			0.00203	0.01	10	0.0203	05/29/03	17:56
226214	Y_3710	0.05	U	mg/L	0.05			0.00023	0.005	10	0.0023	05/29/03	17:56
226214	Zn2062	0.05	U	mg/L	0.05			0.00147	0.005	10	0.0147	05/29/03	17:56
226214	Zr3496	0.05	U	mg/L	0.05			0.00083	0.005	10	0.0083	05/29/03	17:56
226215	Ag3280	0.05	U	mg/L	0.05			-0.00023	0.005	10	-0.0023	05/29/03	18:01
226215	Al3082	0.5	U	mg/L	0.5			-0.00343	0.05	10	-0.0343	05/29/03	18:01
226215	As1890	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	18:01
226215	B_2496	0.25	U	mg/L	0.25			0.00227	0.025	10	0.0227	05/29/03	18:01
226215	Ba4934	0.444		mg/L	0.05			0.04437	0.005	10	0.4437	05/29/03	18:01
226215	Be3130	0.05	U	mg/L	0.05			0.00021	0.005	10	0.0021	05/29/03	18:01
226215	Bi2230	0.15	U	mg/L	0.15			0.00007	0.015	10	0.0007	05/29/03	18:01
226215	Ca3179	451		mg/L	1.5			45.10635	0.15	10	451.0635	05/29/03	18:01
226215	Cd2265	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	18:01
226215	Co2286	0.05	U	mg/L	0.05			0.00001	0.005	10	0.0001	05/29/03	18:01
226215	Cr2677	0.05	U	mg/L	0.05			0.00107	0.005	10	0.0107	05/29/03	18:01
226215	Cu3247	0.05	U	mg/L	0.05			0.00206	0.005	10	0.0206	05/29/03	18:01
226215	Fe2714	0.6	U	mg/L	0.6			0.01193	0.06	10	0.1193	05/29/03	18:01
226215	K_7664	1	U	mg/L	1			0.02752	0.1	10	0.2752	05/29/03	18:01
226215	La3988	0.05	U	mg/L	0.05			-0.00053	0.005	10	-0.0053	05/29/03	18:01
226215	Li6707	0.05	U	mg/L	0.05			0.00010	0.005	10	0.001	05/29/03	18:01
226215	Mg2790	0.5	U	mg/L	0.5			-0.00053	0.05	10	-0.0053	05/29/03	18:01
226215	Mn2576	0.05	U	mg/L	0.05			0.00124	0.005	10	0.0124	05/29/03	18:01
226215	Mo2020	0.05	U	mg/L	0.05			-0.00054	0.005	10	-0.0054	05/29/03	18:01
226215	Na5889	1	U	mg/L	1			0.02225	0.1	10	0.2225	05/29/03	18:01
226215	Ni2316	0.05	U	mg/L	0.05			0.00135	0.005	10	0.0135	05/29/03	18:01
226215	P_1782	0.25	U	mg/L	0.25			0.00030	0.025	10	0.003	05/29/03	18:01
226215	Pb220	0.05	U	mg/L	0.05			0.00038	0.005	10	0.0038	05/29/03	18:01
226215	Pd3404	0.1	U	mg/L	0.1			-0.00016	0.01	10	-0.0016	05/29/03	18:01
226215	S_1820	0.25	U	mg/L	0.25			0.00403	0.025	10	0.0403	05/29/03	18:01
226215	Sb2068	0.1	U	mg/L	0.1			0.00076	0.01	10	0.0076	05/29/03	18:01
226215	Se196	0.05	U	mg/L	0.05			-0.00091	0.005	10	-0.0091	05/29/03	18:01
226215	Si2881	35.9		mg/L	0.25			3.58839	0.025	10	35.8839	05/29/03	18:01
226215	Sn1899	0.05	U	mg/L	0.05			-0.00109	0.005	10	-0.0109	05/29/03	18:01
226215	Sr4215	0.293		mg/L	0.05			0.02934	0.005	10	0.2934	05/29/03	18:01

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226215	Th2837	0.1	U	mg/L	0.1			0.00084	0.01	10	0.0084	05/29/03	18:01
226215	Ti3349	0.05	U	mg/L	0.05			0.00008	0.005	10	0.0008	05/29/03	18:01
226215	Tl1908	0.1	U	mg/L	0.1			-0.00142	0.01	10	-0.0142	05/29/03	18:01
226215	V_2924	0.05	U	mg/L	0.05			0.00031	0.005	10	0.0031	05/29/03	18:01
226215	W_2079	0.1	U	mg/L	0.1			0.00256	0.01	10	0.0256	05/29/03	18:01
226215	Y_3710	0.05	U	mg/L	0.05			0.00015	0.005	10	0.0015	05/29/03	18:01
226215	Zn2062	0.05	U	mg/L	0.05			0.00041	0.005	10	0.0041	05/29/03	18:01
226215	Zr3496	0.05	U	mg/L	0.05			-0.00023	0.005	10	-0.0023	05/29/03	18:01
226216	Ag3280	0.05	U	mg/L	0.05			0.00024	0.005	10	0.0024	05/29/03	18:06
226216	Al3082	0.5	U	mg/L	0.5			0.02309	0.05	10	0.2309	05/29/03	18:06
226216	As1890	0.05	U	mg/L	0.05			-0.00155	0.005	10	-0.0155	05/29/03	18:06
226216	B_2496	0.25	U	mg/L	0.25			0.00138	0.025	10	0.0138	05/29/03	18:06
226216	Ba4934	0.196		mg/L	0.05			0.01962	0.005	10	0.1962	05/29/03	18:06
226216	Be3130	0.05	U	mg/L	0.05			0.00020	0.005	10	0.002	05/29/03	18:06
226216	Bi2230	0.15	U	mg/L	0.15			-0.00115	0.015	10	-0.0115	05/29/03	18:06
226216	Ca3179	391		mg/L	1.5			39.14430	0.15	10	391.443	05/29/03	18:06
226216	Cd2265	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	18:06
226216	Co2286	0.05	U	mg/L	0.05			0.00199	0.005	10	0.0199	05/29/03	18:06
226216	Cr2677	0.05	U	mg/L	0.05			0.00029	0.005	10	0.0029	05/29/03	18:06
226216	Cu3247	0.05	U	mg/L	0.05			0.00196	0.005	10	0.0196	05/29/03	18:06
226216	Fe2714	0.6	U	mg/L	0.6			-0.00581	0.06	10	-0.0581	05/29/03	18:06
226216	K_7664	1	U	mg/L	1			0.00134	0.1	10	0.0134	05/29/03	18:06
226216	La3988	0.05	U	mg/L	0.05			-0.00031	0.005	10	-0.0031	05/29/03	18:06
226216	Li6707	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	18:06
226216	Mg2790	0.5	U	mg/L	0.5			0.00344	0.05	10	0.0344	05/29/03	18:06
226216	Mn2576	0.05	U	mg/L	0.05			0.00051	0.005	10	0.0051	05/29/03	18:06
226216	Mo2020	0.05	U	mg/L	0.05			-0.00013	0.005	10	-0.0013	05/29/03	18:06
226216	Na5889	1	U	mg/L	1			0.03124	0.1	10	0.3124	05/29/03	18:06
226216	Ni2316	0.05	U	mg/L	0.05			-0.00033	0.005	10	-0.0033	05/29/03	18:06
226216	P_1782	0.25	U	mg/L	0.25			0.00318	0.025	10	0.0318	05/29/03	18:06
226216	Pb220	0.05	U	mg/L	0.05			-0.00003	0.005	10	-0.0003	05/29/03	18:06
226216	Pd3404	0.1	U	mg/L	0.1			-0.00184	0.01	10	-0.0184	05/29/03	18:06
226216	S_1820	0.25	U	mg/L	0.25			0.00840	0.025	10	0.084	05/29/03	18:06
226216	Sb2068	0.1	U	mg/L	0.1			-0.00020	0.01	10	-0.002	05/29/03	18:06
226216	Se196	0.05	U	mg/L	0.05			0.00081	0.005	10	0.0081	05/29/03	18:06
226216	Si2881	31.6		mg/L	0.25			3.16071	0.025	10	31.6071	05/29/03	18:06
226216	Sn1899	0.05	U	mg/L	0.05			0.00083	0.005	10	0.0083	05/29/03	18:06
226216	Sr4215	0.260		mg/L	0.05			0.02603	0.005	10	0.2603	05/29/03	18:06
226216	Th2837	0.1	U	mg/L	0.1			-0.00235	0.01	10	-0.0235	05/29/03	18:06
226216	Ti3349	0.05	U	mg/L	0.05			-0.00005	0.005	10	-0.0005	05/29/03	18:06

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226216	Tl1908	0.1	U	mg/L	0.1			-0.00044	0.01	10	-0.0044	05/29/03	18:06
226216	V_2924	0.05	U	mg/L	0.05			-0.00067	0.005	10	-0.0067	05/29/03	18:06
226216	W_2079	0.1	U	mg/L	0.1			0.00063	0.01	10	0.0063	05/29/03	18:06
226216	Y_3710	0.05	U	mg/L	0.05			0.00001	0.005	10	0.0001	05/29/03	18:06
226216	Zn2062	0.05	U	mg/L	0.05			0.00085	0.005	10	0.0085	05/29/03	18:06
226216	Zr3496	0.05	U	mg/L	0.05			-0.00006	0.005	10	-0.0006	05/29/03	18:06
226217	Ag3280	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	18:10
226217	Al3082	0.5	U	mg/L	0.5			-0.00305	0.05	10	-0.0305	05/29/03	18:10
226217	As1890	0.05	U	mg/L	0.05			-0.00395	0.005	10	-0.0395	05/29/03	18:10
226217	B_2496	0.25	U	mg/L	0.25			0.00175	0.025	10	0.0175	05/29/03	18:10
226217	Ba4934	0.432		mg/L	0.05			0.04323	0.005	10	0.4323	05/29/03	18:10
226217	Be3130	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	18:10
226217	Bi2230	0.15	U	mg/L	0.15			-0.00337	0.015	10	-0.0337	05/29/03	18:10
226217	Ca3179	457		mg/L	1.5			45.73028	0.15	10	457.3028	05/29/03	18:10
226217	Cd2265	0.05	U	mg/L	0.05			-0.00003	0.005	10	-0.0003	05/29/03	18:10
226217	Co2286	0.05	U	mg/L	0.05			0.00197	0.005	10	0.0197	05/29/03	18:10
226217	Cr2677	0.05	U	mg/L	0.05			0.00126	0.005	10	0.0126	05/29/03	18:10
226217	Cu3247	0.05	U	mg/L	0.05			0.00170	0.005	10	0.017	05/29/03	18:10
226217	Fe2714	0.6	U	mg/L	0.6			0.00115	0.06	10	0.0115	05/29/03	18:10
226217	K_7664	1	U	mg/L	1			0.03066	0.1	10	0.3066	05/29/03	18:10
226217	La3988	0.05	U	mg/L	0.05			-0.00037	0.005	10	-0.0037	05/29/03	18:10
226217	Li6707	0.05	U	mg/L	0.05			0.00008	0.005	10	0.0008	05/29/03	18:10
226217	Mg2790	0.5	U	mg/L	0.5			0.00126	0.05	10	0.0126	05/29/03	18:10
226217	Mn2576	0.05	U	mg/L	0.05			0.00181	0.005	10	0.0181	05/29/03	18:10
226217	Mo2020	0.05	U	mg/L	0.05			0.00002	0.005	10	0.0002	05/29/03	18:10
226217	Na5889	1	U	mg/L	1			0.03119	0.1	10	0.3119	05/29/03	18:10
226217	Ni2316	0.05	U	mg/L	0.05			0.00066	0.005	10	0.0066	05/29/03	18:10
226217	P_1782	0.25	U	mg/L	0.25			0.00703	0.025	10	0.0703	05/29/03	18:10
226217	Pb220	0.05	U	mg/L	0.05			0.00051	0.005	10	0.0051	05/29/03	18:10
226217	Pd3404	0.1	U	mg/L	0.1			-0.00031	0.01	10	-0.0031	05/29/03	18:10
226217	S_1820	0.25	U	mg/L	0.25			0.00752	0.025	10	0.0752	05/29/03	18:10
226217	Sb2068	0.1	U	mg/L	0.1			0.00631	0.01	10	0.0631	05/29/03	18:10
226217	Se196	0.05	U	mg/L	0.05			0.00149	0.005	10	0.0149	05/29/03	18:10
226217	Si2881	36.2		mg/L	0.25			3.61681	0.025	10	36.1681	05/29/03	18:10
226217	Sn1899	0.05	U	mg/L	0.05			0.00102	0.005	10	0.0102	05/29/03	18:10
226217	Sr4215	0.302		mg/L	0.05			0.03019	0.005	10	0.3019	05/29/03	18:10
226217	Th2837	0.1	U	mg/L	0.1			0.00205	0.01	10	0.0205	05/29/03	18:10
226217	Ti3349	0.05	U	mg/L	0.05			0.00009	0.005	10	0.0009	05/29/03	18:10
226217	Tl1908	0.1	U	mg/L	0.1			0.00170	0.01	10	0.017	05/29/03	18:10
226217	V_2924	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	18:10

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226217	W_2079	0.1	U	mg/L	0.1				0.00188	0.01	10	0.0188	05/29/03	18:10
226217	Y_3710	0.05	U	mg/L	0.05				0.00019	0.005	10	0.0019	05/29/03	18:10
226217	Zn2062	0.05	U	mg/L	0.05				0.00079	0.005	10	0.0079	05/29/03	18:10
226217	Zr3496	0.05	U	mg/L	0.05				0.00009	0.005	10	0.0009	05/29/03	18:10
226218	Ag3280	0.05	U	mg/L	0.05				-0.00086	0.005	10	-0.0086	05/29/03	18:30
226218	Al3082	0.5	U	mg/L	0.5				-0.00570	0.05	10	-0.057	05/29/03	18:30
226218	As1890	0.05	U	mg/L	0.05				-0.00037	0.005	10	-0.0037	05/29/03	18:30
226218	B_2496	0.25	U	mg/L	0.25				0.00445	0.025	10	0.0445	05/29/03	18:30
226218	Ba4934	0.334		mg/L	0.05				0.03340	0.005	10	0.334	05/29/03	18:30
226218	Be3130	0.05	U	mg/L	0.05				0.00022	0.005	10	0.0022	05/29/03	18:30
226218	Bi2230	0.15	U	mg/L	0.15				0.00031	0.015	10	0.0031	05/29/03	18:30
226218	Ca3179	400		mg/L	1.5				40.03783	0.15	10	400.3783	05/29/03	18:30
226218	Cd2265	0.05	U	mg/L	0.05				0.00007	0.005	10	0.0007	05/29/03	18:30
226218	Co2286	0.05	U	mg/L	0.05				0.00137	0.005	10	0.0137	05/29/03	18:30
226218	Cr2677	0.05	U	mg/L	0.05				0.00000	0.005	10	0	05/29/03	18:30
226218	Cu3247	0.05	U	mg/L	0.05				0.00130	0.005	10	0.013	05/29/03	18:30
226218	Fe2714	0.6	U	mg/L	0.6				-0.00203	0.06	10	-0.0203	05/29/03	18:30
226218	K_7664	1	U	mg/L	1				0.01829	0.1	10	0.1829	05/29/03	18:30
226218	La3988	0.05	U	mg/L	0.05				-0.00104	0.005	10	-0.0104	05/29/03	18:30
226218	Li6707	0.05	U	mg/L	0.05				0.00014	0.005	10	0.0014	05/29/03	18:30
226218	Mg2790	0.5	U	mg/L	0.5				-0.00276	0.05	10	-0.0276	05/29/03	18:30
226218	Mn2576	0.05	U	mg/L	0.05				0.00065	0.005	10	0.0065	05/29/03	18:30
226218	Mo2020	0.05	U	mg/L	0.05				0.00098	0.005	10	0.0098	05/29/03	18:30
226218	Na5889	1	U	mg/L	1				0.01608	0.1	10	0.1608	05/29/03	18:30
226218	Ni2316	0.05	U	mg/L	0.05				-0.00082	0.005	10	-0.0082	05/29/03	18:30
226218	P_1782	0.25	U	mg/L	0.25				0.00548	0.025	10	0.0548	05/29/03	18:30
226218	Pb220	0.05	U	mg/L	0.05				0.00164	0.005	10	0.0164	05/29/03	18:30
226218	Pd3404	0.1	U	mg/L	0.1				-0.00123	0.01	10	-0.0123	05/29/03	18:30
226218	S_1820	0.25	U	mg/L	0.25				0.00903	0.025	10	0.0903	05/29/03	18:30
226218	Sb2068	0.1	U	mg/L	0.1				-0.00305	0.01	10	-0.0305	05/29/03	18:30
226218	Se196	0.05	U	mg/L	0.05				0.00127	0.005	10	0.0127	05/29/03	18:30
226218	Si2881	31.6		mg/L	0.25				3.15638	0.025	10	31.5638	05/29/03	18:30
226218	Sn1899	0.05	U	mg/L	0.05				-0.00012	0.005	10	-0.0012	05/29/03	18:30
226218	Sr4215	0.262		mg/L	0.05				0.02624	0.005	10	0.2624	05/29/03	18:30
226218	Th2837	0.1	U	mg/L	0.1				-0.00003	0.01	10	-0.0003	05/29/03	18:30
226218	Ti3349	0.05	U	mg/L	0.05				-0.00001	0.005	10	-0.0001	05/29/03	18:30
226218	Tl1908	0.1	U	mg/L	0.1				0.00061	0.01	10	0.0061	05/29/03	18:30
226218	V_2924	0.05	U	mg/L	0.05				-0.00052	0.005	10	-0.0052	05/29/03	18:30
226218	W_2079	0.1	U	mg/L	0.1				0.00071	0.01	10	0.0071	05/29/03	18:30
226218	Y_3710	0.05	U	mg/L	0.05				-0.00006	0.005	10	-0.0006	05/29/03	18:30

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226218	Zn2062	0.05	U	mg/L	0.05				0.00029	0.005	10	0.0029	05/29/03	18:30
226218	Zr3496	0.05	U	mg/L	0.05				-0.00041	0.005	10	-0.0041	05/29/03	18:30
226219	Ag3280	0.05	U	mg/L	0.05				-0.00047	0.005	10	-0.0047	05/29/03	18:35
226219	Al3082	0.5	U	mg/L	0.5				0.01724	0.05	10	0.1724	05/29/03	18:35
226219	As1890	0.05	U	mg/L	0.05				0.00112	0.005	10	0.0112	05/29/03	18:35
226219	B_2496	0.25	U	mg/L	0.25				0.00350	0.025	10	0.035	05/29/03	18:35
226219	Ba4934	0.389		mg/L	0.05				0.03891	0.005	10	0.3891	05/29/03	18:35
226219	Be3130	0.05	U	mg/L	0.05				0.00023	0.005	10	0.0023	05/29/03	18:35
226219	Bi2230	0.15	U	mg/L	0.15				0.00114	0.015	10	0.0114	05/29/03	18:35
226219	Ca3179	399		mg/L	1.5				39.88730	0.15	10	398.873	05/29/03	18:35
226219	Cd2265	0.05	U	mg/L	0.05				-0.00002	0.005	10	-0.0002	05/29/03	18:35
226219	Co2286	0.05	U	mg/L	0.05				-0.00014	0.005	10	-0.0014	05/29/03	18:35
226219	Cr2677	0.05	U	mg/L	0.05				0.00099	0.005	10	0.0099	05/29/03	18:35
226219	Cu3247	0.05	U	mg/L	0.05				0.00130	0.005	10	0.013	05/29/03	18:35
226219	Fe2714	0.6	U	mg/L	0.6				-0.00832	0.06	10	-0.0832	05/29/03	18:35
226219	K_7664	1	U	mg/L	1				0.00529	0.1	10	0.0529	05/29/03	18:35
226219	La3988	0.05	U	mg/L	0.05				-0.00064	0.005	10	-0.0064	05/29/03	18:35
226219	Li6707	0.05	U	mg/L	0.05				0.00009	0.005	10	0.0009	05/29/03	18:35
226219	Mg2790	0.5	U	mg/L	0.5				0.00288	0.05	10	0.0288	05/29/03	18:35
226219	Mn2576	0.05	U	mg/L	0.05				0.00073	0.005	10	0.0073	05/29/03	18:35
226219	Mo2020	0.05	U	mg/L	0.05				0.00074	0.005	10	0.0074	05/29/03	18:35
226219	Na5889	1	U	mg/L	1				0.02639	0.1	10	0.2639	05/29/03	18:35
226219	Ni2316	0.05	U	mg/L	0.05				0.00050	0.005	10	0.005	05/29/03	18:35
226219	P_1782	0.25	U	mg/L	0.25				0.00603	0.025	10	0.0603	05/29/03	18:35
226219	Pb220	0.05	U	mg/L	0.05				0.00034	0.005	10	0.0034	05/29/03	18:35
226219	Pd3404	0.1	U	mg/L	0.1				-0.00313	0.01	10	-0.0313	05/29/03	18:35
226219	S_1820	0.25	U	mg/L	0.25				0.01123	0.025	10	0.1123	05/29/03	18:35
226219	Sb2068	0.1	U	mg/L	0.1				0.00199	0.01	10	0.0199	05/29/03	18:35
226219	Se196	0.05	U	mg/L	0.05				0.00211	0.005	10	0.0211	05/29/03	18:35
226219	Si2881	31.9		mg/L	0.25				3.18680	0.025	10	31.868	05/29/03	18:35
226219	Sn1899	0.05	U	mg/L	0.05				-0.00032	0.005	10	-0.0032	05/29/03	18:35
226219	Sr4215	0.265		mg/L	0.05				0.02651	0.005	10	0.2651	05/29/03	18:35
226219	Th2837	0.1	U	mg/L	0.1				0.00268	0.01	10	0.0268	05/29/03	18:35
226219	Ti3349	0.05	U	mg/L	0.05				0.00003	0.005	10	0.0003	05/29/03	18:35
226219	Tl1908	0.1	U	mg/L	0.1				0.00070	0.01	10	0.007	05/29/03	18:35
226219	V_2924	0.05	U	mg/L	0.05				-0.00030	0.005	10	-0.003	05/29/03	18:35
226219	W_2079	0.1	U	mg/L	0.1				0.00114	0.01	10	0.0114	05/29/03	18:35
226219	Y_3710	0.05	U	mg/L	0.05				0.00005	0.005	10	0.0005	05/29/03	18:35
226219	Zn2062	0.05	U	mg/L	0.05				0.00052	0.005	10	0.0052	05/29/03	18:35
226219	Zr3496	0.05	U	mg/L	0.05				0.00012	0.005	10	0.0012	05/29/03	18:35

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226220	Ag3280	0.05	U	mg/L	0.05				-0.00022	0.005	10	-0.0022	05/29/03	18:39
226220	Al3082	0.5	U	mg/L	0.5				-0.00073	0.05	10	-0.0073	05/29/03	18:39
226220	As1890	0.05	U	mg/L	0.05				-0.00156	0.005	10	-0.0156	05/29/03	18:39
226220	B_2496	0.25	U	mg/L	0.25				0.00268	0.025	10	0.0268	05/29/03	18:39
226220	Ba4934	0.391		mg/L	0.05				0.03911	0.005	10	0.3911	05/29/03	18:39
226220	Be3130	0.05	U	mg/L	0.05				0.00022	0.005	10	0.0022	05/29/03	18:39
226220	Bi2230	0.15	U	mg/L	0.15				0.00198	0.015	10	0.0198	05/29/03	18:39
226220	Ca3179	409		mg/L	1.5				40.94331	0.15	10	409.4331	05/29/03	18:39
226220	Cd2265	0.05	U	mg/L	0.05				0.00020	0.005	10	0.002	05/29/03	18:39
226220	Co2286	0.05	U	mg/L	0.05				0.00239	0.005	10	0.0239	05/29/03	18:39
226220	Cr2677	0.05	U	mg/L	0.05				-0.00025	0.005	10	-0.0025	05/29/03	18:39
226220	Cu3247	0.05	U	mg/L	0.05				0.00080	0.005	10	0.008	05/29/03	18:39
226220	Fe2714	0.6	U	mg/L	0.6				0.01019	0.06	10	0.1019	05/29/03	18:39
226220	K_7664	1	U	mg/L	1				0.05029	0.1	10	0.5029	05/29/03	18:39
226220	La3988	0.05	U	mg/L	0.05				0.00004	0.005	10	0.0004	05/29/03	18:39
226220	Li6707	0.05	U	mg/L	0.05				0.00012	0.005	10	0.0012	05/29/03	18:39
226220	Mg2790	0.5	U	mg/L	0.5				0.00169	0.05	10	0.0169	05/29/03	18:39
226220	Mn2576	0.05	U	mg/L	0.05				0.00082	0.005	10	0.0082	05/29/03	18:39
226220	Mo2020	0.05	U	mg/L	0.05				0.00027	0.005	10	0.0027	05/29/03	18:39
226220	Na5889	1	U	mg/L	1				0.02181	0.1	10	0.2181	05/29/03	18:39
226220	Ni2316	0.05	U	mg/L	0.05				-0.00033	0.005	10	-0.0033	05/29/03	18:39
226220	P_1782	0.25	U	mg/L	0.25				0.00852	0.025	10	0.0852	05/29/03	18:39
226220	Pb220	0.05	U	mg/L	0.05				-0.00012	0.005	10	-0.0012	05/29/03	18:39
226220	Pd3404	0.1	U	mg/L	0.1				0.00023	0.01	10	0.0023	05/29/03	18:39
226220	S_1820	0.25	U	mg/L	0.25				0.00883	0.025	10	0.0883	05/29/03	18:39
226220	Sb2068	0.1	U	mg/L	0.1				-0.00182	0.01	10	-0.0182	05/29/03	18:39
226220	Se196	0.05	U	mg/L	0.05				0.00112	0.005	10	0.0112	05/29/03	18:39
226220	Si2881	32.4		mg/L	0.25				3.23813	0.025	10	32.3813	05/29/03	18:39
226220	Sn1899	0.05	U	mg/L	0.05				-0.00058	0.005	10	-0.0058	05/29/03	18:39
226220	Sr4215	0.268		mg/L	0.05				0.02678	0.005	10	0.2678	05/29/03	18:39
226220	Th2837	0.1	U	mg/L	0.1				-0.00204	0.01	10	-0.0204	05/29/03	18:39
226220	Ti3349	0.05	U	mg/L	0.05				-0.00016	0.005	10	-0.0016	05/29/03	18:39
226220	Tl1908	0.1	U	mg/L	0.1				-0.00058	0.01	10	-0.0058	05/29/03	18:39
226220	V_2924	0.05	U	mg/L	0.05				-0.00115	0.005	10	-0.0115	05/29/03	18:39
226220	W_2079	0.1	U	mg/L	0.1				0.00202	0.01	10	0.0202	05/29/03	18:39
226220	Y_3710	0.05	U	mg/L	0.05				-0.00003	0.005	10	-0.0003	05/29/03	18:39
226220	Zn2062	0.05	U	mg/L	0.05				0.00045	0.005	10	0.0045	05/29/03	18:39
226220	Zr3496	0.05	U	mg/L	0.05				-0.00042	0.005	10	-0.0042	05/29/03	18:39
226221	Ag3280	0.05	U	mg/L	0.05				-0.00040	0.005	10	-0.004	05/29/03	18:44
226221	Al3082	0.5	U	mg/L	0.5				-0.00453	0.05	10	-0.0453	05/29/03	18:44

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226221	As1890	0.05	U	mg/L	0.05			-0.00074	0.005	10	-0.0074	05/29/03	18:44
226221	B_2496	0.25	U	mg/L	0.25			0.00199	0.025	10	0.0199	05/29/03	18:44
226221	Ba4934	0.400		mg/L	0.05			0.04004	0.005	10	0.4004	05/29/03	18:44
226221	Be3130	0.05	U	mg/L	0.05			0.00024	0.005	10	0.0024	05/29/03	18:44
226221	Bi2230	0.15	U	mg/L	0.15			0.00031	0.015	10	0.0031	05/29/03	18:44
226221	Ca3179	410		mg/L	1.5			41.02479	0.15	10	410.2479	05/29/03	18:44
226221	Cd2265	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	18:44
226221	Co2286	0.05	U	mg/L	0.05			-0.00014	0.005	10	-0.0014	05/29/03	18:44
226221	Cr2677	0.05	U	mg/L	0.05			-0.00014	0.005	10	-0.0014	05/29/03	18:44
226221	Cu3247	0.05	U	mg/L	0.05			0.00123	0.005	10	0.0123	05/29/03	18:44
226221	Fe2714	0.6	U	mg/L	0.6			-0.00370	0.06	10	-0.037	05/29/03	18:44
226221	K_7664	1	U	mg/L	1			0.02792	0.1	10	0.2792	05/29/03	18:44
226221	La3988	0.05	U	mg/L	0.05			-0.00011	0.005	10	-0.0011	05/29/03	18:44
226221	Li6707	0.05	U	mg/L	0.05			0.00012	0.005	10	0.0012	05/29/03	18:44
226221	Mg2790	0.5	U	mg/L	0.5			0.00103	0.05	10	0.0103	05/29/03	18:44
226221	Mn2576	0.05	U	mg/L	0.05			0.00106	0.005	10	0.0106	05/29/03	18:44
226221	Mo2020	0.05	U	mg/L	0.05			0.00090	0.005	10	0.009	05/29/03	18:44
226221	Na5889	1	U	mg/L	1			0.03473	0.1	10	0.3473	05/29/03	18:44
226221	Ni2316	0.05	U	mg/L	0.05			-0.00061	0.005	10	-0.0061	05/29/03	18:44
226221	P_1782	0.25	U	mg/L	0.25			-0.00098	0.025	10	-0.0098	05/29/03	18:44
226221	Pb220	0.05	U	mg/L	0.05			0.00036	0.005	10	0.0036	05/29/03	18:44
226221	Pd3404	0.1	U	mg/L	0.1			-0.00097	0.01	10	-0.0097	05/29/03	18:44
226221	S_1820	0.25	U	mg/L	0.25			0.01020	0.025	10	0.102	05/29/03	18:44
226221	Sb2068	0.1	U	mg/L	0.1			0.00160	0.01	10	0.016	05/29/03	18:44
226221	Se196	0.05	U	mg/L	0.05			0.00178	0.005	10	0.0178	05/29/03	18:44
226221	Si2881	32.8		mg/L	0.25			3.27593	0.025	10	32.7593	05/29/03	18:44
226221	Sn1899	0.05	U	mg/L	0.05			0.00068	0.005	10	0.0068	05/29/03	18:44
226221	Sr4215	0.275		mg/L	0.05			0.02750	0.005	10	0.275	05/29/03	18:44
226221	Th2837	0.1	U	mg/L	0.1			-0.00159	0.01	10	-0.0159	05/29/03	18:44
226221	Ti3349	0.05	U	mg/L	0.05			-0.00003	0.005	10	-0.0003	05/29/03	18:44
226221	Tl1908	0.1	U	mg/L	0.1			0.00023	0.01	10	0.0023	05/29/03	18:44
226221	V_2924	0.05	U	mg/L	0.05			-0.00060	0.005	10	-0.006	05/29/03	18:44
226221	W_2079	0.1	U	mg/L	0.1			0.00044	0.01	10	0.0044	05/29/03	18:44
226221	Y_3710	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	18:44
226221	Zn2062	0.05	U	mg/L	0.05			0.00048	0.005	10	0.0048	05/29/03	18:44
226221	Zr3496	0.05	U	mg/L	0.05			-0.00046	0.005	10	-0.0046	05/29/03	18:44
lcsw-E29W1	Ag3280	0.508		mg/L	0.05	0.5	101.6%	0.05080	0.005	10	0.508	05/29/03	16:31
lcsw-E29W1	Al3082	19.1		mg/L	0.5	20	95.6%	1.91144	0.05	10	19.1144	05/29/03	16:31
lcsw-E29W1	As1890	20.1		mg/L	0.05	20	100.3%	2.00525	0.005	10	20.0525	05/29/03	16:31
lcsw-E29W1	B_2496	0.25	U	mg/L	0.25			0.00647	0.025	10	0.0647	05/29/03	16:31

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
lcsw-E29W1	Ba4934	19.9		mg/L	0.05	20	99.7%	1.99373	0.005	10	19.9373	05/29/03	16:31
lcsw-E29W1	Be3130	0.495		mg/L	0.05	0.5	99.0%	0.04952	0.005	10	0.4952	05/29/03	16:31
lcsw-E29W1	Bi2230	0.15	U	mg/L	0.15			0.00298	0.015	10	0.0298	05/29/03	16:31
lcsw-E29W1	Ca3179	204		mg/L	1.5	200	101.9%	20.38735	0.15	10	203.8735	05/29/03	16:31
lcsw-E29W1	Cd2265	0.512		mg/L	0.05	0.5	102.3%	0.05116	0.005	10	0.5116	05/29/03	16:31
lcsw-E29W1	Co2286	5.04		mg/L	0.05	5	100.8%	0.50382	0.005	10	5.0382	05/29/03	16:31
lcsw-E29W1	Cr2677	1.97		mg/L	0.05	2	98.7%	0.19731	0.005	10	1.9731	05/29/03	16:31
lcsw-E29W1	Cu3247	2.43		mg/L	0.05	2.5	97.3%	0.24336	0.005	10	2.4336	05/29/03	16:31
lcsw-E29W1	Fe2714	10.9		mg/L	0.6	10	108.8%	1.08839	0.06	10	10.8839	05/29/03	16:31
lcsw-E29W1	K_7664	167		mg/L	1	200	83.4%	16.67558	0.1	10	166.7558	05/29/03	16:31
lcsw-E29W1	La3988	0.05	U	mg/L	0.05			-0.00048	0.005	10	-0.0048	05/29/03	16:31
lcsw-E29W1	Li6707	0.05	U	mg/L	0.05			0.00026	0.005	10	0.0026	05/29/03	16:31
lcsw-E29W1	Mg2790	205		mg/L	0.5	200	102.5%	20.49008	0.05	10	204.9008	05/29/03	16:31
lcsw-E29W1	Mn2576	5.08		mg/L	0.05	5	101.5%	0.50768	0.005	10	5.0768	05/29/03	16:31
lcsw-E29W1	Mo2020	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	16:31
lcsw-E29W1	Na3302	177		mg/L	1	200	88.3%	17.66656	0.1	10	176.6656	05/29/03	16:31
lcsw-E29W1	Ni2316	4.90		mg/L	0.05	5	98.1%	0.49041	0.005	10	4.9041	05/29/03	16:31
lcsw-E29W1	P_1782	0.25	U	mg/L	0.25			-0.00181	0.025	10	-0.0181	05/29/03	16:31
lcsw-E29W1	Pb220	5.12		mg/L	0.05	5	102.5%	0.51228	0.005	10	5.1228	05/29/03	16:31
lcsw-E29W1	Pd3404	0.1	U	mg/L	0.1			-0.00018	0.01	10	-0.0018	05/29/03	16:31
lcsw-E29W1	S_1820	0.25	U	mg/L	0.25			0.00296	0.025	10	0.0296	05/29/03	16:31
lcsw-E29W1	Sb2068	4.96		mg/L	0.1	5	99.2%	0.49589	0.01	10	4.9589	05/29/03	16:31
lcsw-E29W1	Se196	20.6		mg/L	0.05	20	103.0%	2.06073	0.005	10	20.6073	05/29/03	16:31
lcsw-E29W1	Si2881	41.9		mg/L	0.25	40	104.7%	4.18950	0.025	10	41.895	05/29/03	16:31
lcsw-E29W1	Sn1899	0.05	U	mg/L	0.05			0.00140	0.005	10	0.014	05/29/03	16:31
lcsw-E29W1	Sr4215	0.05	U	mg/L	0.05			0.00071	0.005	10	0.0071	05/29/03	16:31
lcsw-E29W1	Th2837	0.1	U	mg/L	0.1			-0.01214	0.01	10	-0.1214	05/29/03	16:31
lcsw-E29W1	Ti3349	0.05	U	mg/L	0.05			0.00021	0.005	10	0.0021	05/29/03	16:31
lcsw-E29W1	Tl1908	20.7		mg/L	0.1	20	103.7%	2.07410	0.01	10	20.741	05/29/03	16:31
lcsw-E29W1	V_2924	5.03		mg/L	0.05	5	100.6%	0.50286	0.005	10	5.0286	05/29/03	16:31
lcsw-E29W1	W_2079	0.1	U	mg/L	0.1			0.00189	0.01	10	0.0189	05/29/03	16:31
lcsw-E29W1	Y_3710	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	16:31
lcsw-E29W1	Zn2062	5.12		mg/L	0.05	5	102.5%	0.51227	0.005	10	5.1227	05/29/03	16:31
lcsw-E29W1	Zr3496	0.05	U	mg/L	0.05			0.00088	0.005	10	0.0088	05/29/03	16:31
pbw-E29W1	Ag3280	0.05	U	mg/L	0.05			-0.00058	0.005	10	-0.0058	05/29/03	16:27
pbw-E29W1	Al3082	0.5	U	mg/L	0.5			0.00525	0.05	10	0.0525	05/29/03	16:27
pbw-E29W1	As1890	0.05	U	mg/L	0.05			-0.00087	0.005	10	-0.0087	05/29/03	16:27
pbw-E29W1	B_2496	0.25	U	mg/L	0.25			0.00582	0.025	10	0.0582	05/29/03	16:27
pbw-E29W1	Ba4934	0.05	U	mg/L	0.05			0.00059	0.005	10	0.0059	05/29/03	16:27
pbw-E29W1	Be3130	0.05	U	mg/L	0.05			0.00008	0.005	10	0.0008	05/29/03	16:27

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
pbw-E29W1	Bi2230	0.15	U	mg/L	0.15			-0.00071	0.015	10	-0.0071	05/29/03	16:27
pbw-E29W1	Ca3179	1.5	U	mg/L	1.5			0.11088	0.15	10	1.1088	05/29/03	16:27
pbw-E29W1	Cd2265	0.05	U	mg/L	0.05			-0.00006	0.005	10	-0.0006	05/29/03	16:27
pbw-E29W1	Co2286	0.05	U	mg/L	0.05			0.00220	0.005	10	0.022	05/29/03	16:27
pbw-E29W1	Cr2677	0.05	U	mg/L	0.05			0.00034	0.005	10	0.0034	05/29/03	16:27
pbw-E29W1	Cu3247	0.05	U	mg/L	0.05			0.00094	0.005	10	0.0094	05/29/03	16:27
pbw-E29W1	Fe2714	0.6	U	mg/L	0.6			0.00209	0.06	10	0.0209	05/29/03	16:27
pbw-E29W1	K_7664	1	U	mg/L	1			-0.00095	0.1	10	-0.0095	05/29/03	16:27
pbw-E29W1	La3988	0.05	U	mg/L	0.05			-0.00045	0.005	10	-0.0045	05/29/03	16:27
pbw-E29W1	Li6707	0.05	U	mg/L	0.05			0.00019	0.005	10	0.0019	05/29/03	16:27
pbw-E29W1	Mg2790	0.5	U	mg/L	0.5			-0.00184	0.05	10	-0.0184	05/29/03	16:27
pbw-E29W1	Mn2576	0.05	U	mg/L	0.05			0.00016	0.005	10	0.0016	05/29/03	16:27
pbw-E29W1	Mo2020	0.05	U	mg/L	0.05			0.00197	0.005	10	0.0197	05/29/03	16:27
pbw-E29W1	Na5889	1	U	mg/L	1			0.00823	0.1	10	0.0823	05/29/03	16:27
pbw-E29W1	Ni2316	0.05	U	mg/L	0.05			-0.00058	0.005	10	-0.0058	05/29/03	16:27
pbw-E29W1	P_1782	0.25	U	mg/L	0.25			-0.00297	0.025	10	-0.0297	05/29/03	16:27
pbw-E29W1	Pb220	0.05	U	mg/L	0.05			0.00048	0.005	10	0.0048	05/29/03	16:27
pbw-E29W1	Pd3404	0.1	U	mg/L	0.1			-0.00201	0.01	10	-0.0201	05/29/03	16:27
pbw-E29W1	S_1820	0.25	U	mg/L	0.25			0.00719	0.025	10	0.0719	05/29/03	16:27
pbw-E29W1	Sb2068	0.1	U	mg/L	0.1			-0.00058	0.01	10	-0.0058	05/29/03	16:27
pbw-E29W1	Se196	0.05	U	mg/L	0.05			0.00126	0.005	10	0.0126	05/29/03	16:27
pbw-E29W1	Si2881	0.25	U	mg/L	0.25			0.01020	0.025	10	0.102	05/29/03	16:27
pbw-E29W1	Sn1899	0.05	U	mg/L	0.05			-0.00025	0.005	10	-0.0025	05/29/03	16:27
pbw-E29W1	Sr4215	0.05	U	mg/L	0.05			0.00091	0.005	10	0.0091	05/29/03	16:27
pbw-E29W1	Th2837	0.1	U	mg/L	0.1			-0.00014	0.01	10	-0.0014	05/29/03	16:27
pbw-E29W1	Ti3349	0.05	U	mg/L	0.05			-0.00004	0.005	10	-0.0004	05/29/03	16:27
pbw-E29W1	Tl1908	0.1	U	mg/L	0.1			-0.00046	0.01	10	-0.0046	05/29/03	16:27
pbw-E29W1	V_2924	0.05	U	mg/L	0.05			-0.00084	0.005	10	-0.0084	05/29/03	16:27
pbw-E29W1	W_2079	0.1	U	mg/L	0.1			0.00109	0.01	10	0.0109	05/29/03	16:27
pbw-E29W1	Y_3710	0.05	U	mg/L	0.05			0.00001	0.005	10	0.0001	05/29/03	16:27
pbw-E29W1	Zn2062	0.05	U	mg/L	0.05			0.00139	0.005	10	0.0139	05/29/03	16:27
pbw-E29W1	Zr3496	0.05	U	mg/L	0.05			-0.00015	0.005	10	-0.0015	05/29/03	16:27

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226222	Ag3280	0.05	U	mg/L	0.05			-0.00037	0.005	10	-0.0037	05/29/03	19:51
226222	Al3082	0.5	U	mg/L	0.5			0.01169	0.05	10	0.1169	05/29/03	19:51
226222	As1890	0.05	U	mg/L	0.05			-0.00205	0.005	10	-0.0205	05/29/03	19:51
226222	B_2496	0.25	U	mg/L	0.25			-0.00123	0.025	10	-0.0123	05/29/03	19:51
226222	Ba4934	0.410		mg/L	0.05			0.04100	0.005	10	0.41	05/29/03	19:51
226222	Be3130	0.05	U	mg/L	0.05			0.00002	0.005	10	0.0002	05/29/03	19:51
226222	Bi2230	0.15	U	mg/L	0.15			-0.00254	0.015	10	-0.0254	05/29/03	19:51
226222	Ca3179	423		mg/L	1.5			42.28486	0.15	10	422.8486	05/29/03	19:51
226222	Cd2265	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	19:51
226222	Co2286	0.05	U	mg/L	0.05			-0.00001	0.005	10	-0.0001	05/29/03	19:51
226222	Cr2677	0.05	U	mg/L	0.05			-0.00047	0.005	10	-0.0047	05/29/03	19:51
226222	Cu3247	0.05	U	mg/L	0.05			0.00049	0.005	10	0.0049	05/29/03	19:51
226222	Fe2714	0.6	U	mg/L	0.6			-0.00474	0.06	10	-0.0474	05/29/03	19:51
226222	K_7664	1	U	mg/L	1			0.05769	0.1	10	0.5769	05/29/03	19:51
226222	La3988	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	19:51
226222	Li6707	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	19:51
226222	Mg2790	0.5	U	mg/L	0.5			0.00285	0.05	10	0.0285	05/29/03	19:51
226222	Mn2576	0.05	U	mg/L	0.05			0.00106	0.005	10	0.0106	05/29/03	19:51
226222	Mo2020	0.05	U	mg/L	0.05			-0.00152	0.005	10	-0.0152	05/29/03	19:51
226222	Na5889	1	U	mg/L	1			0.01693	0.1	10	0.1693	05/29/03	19:51
226222	Ni2316	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	19:51
226222	P_1782	0.25	U	mg/L	0.25			-0.00383	0.025	10	-0.0383	05/29/03	19:51
226222	Pb220	0.05	U	mg/L	0.05			-0.00081	0.005	10	-0.0081	05/29/03	19:51
226222	Pd3404	0.1	U	mg/L	0.1			-0.00124	0.01	10	-0.0124	05/29/03	19:51
226222	S_1820	0.25	U	mg/L	0.25			0.00642	0.025	10	0.0642	05/29/03	19:51
226222	Sb2068	0.1	U	mg/L	0.1			0.00039	0.01	10	0.0039	05/29/03	19:51
226222	Se196	0.05	U	mg/L	0.05			0.00129	0.005	10	0.0129	05/29/03	19:51
226222	Si2881	33.4		mg/L	0.25			3.33890	0.025	10	33.389	05/29/03	19:51
226222	Sn1899	0.05	U	mg/L	0.05			-0.00015	0.005	10	-0.0015	05/29/03	19:51
226222	Sr4215	0.277		mg/L	0.05			0.02774	0.005	10	0.2774	05/29/03	19:51
226222	Th2837	0.1	U	mg/L	0.1			-0.00100	0.01	10	-0.01	05/29/03	19:51
226222	Ti3349	0.05	U	mg/L	0.05			-0.00029	0.005	10	-0.0029	05/29/03	19:51
226222	Tl1908	0.1	U	mg/L	0.1			-0.00204	0.01	10	-0.0204	05/29/03	19:51
226222	V_2924	0.05	U	mg/L	0.05			-0.00060	0.005	10	-0.006	05/29/03	19:51
226222	W_2079	0.1	U	mg/L	0.1			-0.00181	0.01	10	-0.0181	05/29/03	19:51
226222	Y_3710	0.05	U	mg/L	0.05			-0.00012	0.005	10	-0.0012	05/29/03	19:51
226222	Zn2062	0.05	U	mg/L	0.05			0.00103	0.005	10	0.0103	05/29/03	19:51
226222	Zr3496	0.05	U	mg/L	0.05			-0.00098	0.005	10	-0.0098	05/29/03	19:51
226223	Ag3280	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	19:56
226223	Al3082	0.5	U	mg/L	0.5			0.02056	0.05	10	0.2056	05/29/03	19:56

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226223	As1890	0.05	U	mg/L	0.05			0.00167	0.005	10	0.0167	05/29/03	19:56
226223	B_2496	0.25	U	mg/L	0.25			-0.00048	0.025	10	-0.0048	05/29/03	19:56
226223	Ba4934	0.415		mg/L	0.05			0.04152	0.005	10	0.4152	05/29/03	19:56
226223	Be3130	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	19:56
226223	Bi2230	0.15	U	mg/L	0.15			-0.00110	0.015	10	-0.011	05/29/03	19:56
226223	Ca3179	427		mg/L	1.5			42.70599	0.15	10	427.0599	05/29/03	19:56
226223	Cd2265	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	19:56
226223	Co2286	0.05	U	mg/L	0.05			0.00221	0.005	10	0.0221	05/29/03	19:56
226223	Cr2677	0.05	U	mg/L	0.05			0.00044	0.005	10	0.0044	05/29/03	19:56
226223	Cu3247	0.05	U	mg/L	0.05			0.00080	0.005	10	0.008	06/09/03	
226223	Fe2714	0.6	U	mg/L	0.6			0.01721	0.06	10	0.1721	05/29/03	19:56
226223	K_7664	1	U	mg/L	1			0.02701	0.1	10	0.2701	05/29/03	19:56
226223	La3988	0.05	U	mg/L	0.05			0.00028	0.005	10	0.0028	05/29/03	19:56
226223	Li6707	0.05	U	mg/L	0.05			0.00008	0.005	10	0.0008	05/29/03	19:56
226223	Mg2790	0.5	U	mg/L	0.5			0.00402	0.05	10	0.0402	05/29/03	19:56
226223	Mn2576	0.05	U	mg/L	0.05			0.00197	0.005	10	0.0197	05/29/03	19:56
226223	Mo2020	0.05	U	mg/L	0.05			-0.00128	0.005	10	-0.0128	05/29/03	19:56
226223	Na5889	1	U	mg/L	1			0.02268	0.1	10	0.2268	05/29/03	19:56
226223	Ni2316	0.05	U	mg/L	0.05			0.00002	0.005	10	0.0002	05/29/03	19:56
226223	P_1782	0.25	U	mg/L	0.25			-0.00018	0.025	10	-0.0018	05/29/03	19:56
226223	Pb220	0.05	U	mg/L	0.05			-0.00058	0.005	10	-0.0058	05/29/03	19:56
226223	Pd3404	0.1	U	mg/L	0.1			0.00177	0.01	10	0.0177	05/29/03	19:56
226223	S_1820	0.25	U	mg/L	0.25			0.00621	0.025	10	0.0621	05/29/03	19:56
226223	Sb2068	0.1	U	mg/L	0.1			0.00181	0.01	10	0.0181	05/29/03	19:56
226223	Se196	0.05	U	mg/L	0.05			-0.00068	0.005	10	-0.0068	05/29/03	19:56
226223	Si2881	33.8		mg/L	0.25			3.37970	0.025	10	33.797	05/29/03	19:56
226223	Sn1899	0.05	U	mg/L	0.05			0.00340	0.005	10	0.034	06/09/03	
226223	Sr4215	0.282		mg/L	0.05			0.02815	0.005	10	0.2815	05/29/03	19:56
226223	Th2837	0.1	U	mg/L	0.1			-0.00021	0.01	10	-0.0021	05/29/03	19:56
226223	Ti3349	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	19:56
226223	Tl1908	0.1	U	mg/L	0.1			-0.00190	0.01	10	-0.019	05/29/03	19:56
226223	V_2924	0.05	U	mg/L	0.05			0.00007	0.005	10	0.0007	05/29/03	19:56
226223	W_2079	0.1	U	mg/L	0.1			-0.00234	0.01	10	-0.0234	05/29/03	19:56
226223	Y_3710	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	19:56
226223	Zn2062	0.05	U	mg/L	0.05			0.00317	0.005	10	0.0317	05/29/03	19:56
226223	Zr3496	0.05	U	mg/L	0.05			-0.00035	0.005	10	-0.0035	05/29/03	19:56
226224	Ag3280	0.05	U	mg/L	0.05			0.00040	0.005	10	0.004	05/29/03	20:00
226224	Al3082	0.5	U	mg/L	0.5			0.03158	0.05	10	0.3158	05/29/03	20:00
226224	As1890	0.05	U	mg/L	0.05			-0.00107	0.005	10	-0.0107	05/29/03	20:00
226224	B_2496	0.25	U	mg/L	0.25			-0.00141	0.025	10	-0.0141	05/29/03	20:00

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226224	Ba4934	0.424		mg/L	0.05			0.04237	0.005	10	0.4237	05/29/03	20:00
226224	Be3130	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	20:00
226224	Bi2230	0.15	U	mg/L	0.15			0.00355	0.015	10	0.0355	05/29/03	20:00
226224	Ca3179	442		mg/L	1.5			44.15760	0.15	10	441.576	05/29/03	20:00
226224	Cd2265	0.05	U	mg/L	0.05			0.00021	0.005	10	0.0021	05/29/03	20:00
226224	Co2286	0.05	U	mg/L	0.05			0.00043	0.005	10	0.0043	05/29/03	20:00
226224	Cr2677	0.05	U	mg/L	0.05			0.00018	0.005	10	0.0018	05/29/03	20:00
226224	Cu3247	0.05	U	mg/L	0.05			0.00099	0.005	10	0.0099	05/29/03	20:00
226224	Fe2714	0.6	U	mg/L	0.6			0.03346	0.06	10	0.3346	05/29/03	20:00
226224	K_7664	1	U	mg/L	1			0.06137	0.1	10	0.6137	05/29/03	20:00
226224	La3988	0.05	U	mg/L	0.05			0.00097	0.005	10	0.0097	05/29/03	20:00
226224	Li6707	0.05	U	mg/L	0.05			0.00016	0.005	10	0.0016	05/29/03	20:00
226224	Mg2790	0.5	U	mg/L	0.5			0.01214	0.05	10	0.1214	05/29/03	20:00
226224	Mn2576	0.05	U	mg/L	0.05			0.00148	0.005	10	0.0148	05/29/03	20:00
226224	Mo2020	0.05	U	mg/L	0.05			-0.00114	0.005	10	-0.0114	05/29/03	20:00
226224	Na5889	1	U	mg/L	1			0.02137	0.1	10	0.2137	05/29/03	20:00
226224	Ni2316	0.05	U	mg/L	0.05			0.00073	0.005	10	0.0073	05/29/03	20:00
226224	P_1782	0.25	U	mg/L	0.25			-0.00533	0.025	10	-0.0533	05/29/03	20:00
226224	Pb220	0.05	U	mg/L	0.05			0.00102	0.005	10	0.0102	05/29/03	20:00
226224	Pd3404	0.1	U	mg/L	0.1			0.00813	0.01	10	0.0813	05/29/03	20:00
226224	S_1820	0.25	U	mg/L	0.25			0.00322	0.025	10	0.0322	05/29/03	20:00
226224	Sb2068	0.1	U	mg/L	0.1			0.00442	0.01	10	0.0442	05/29/03	20:00
226224	Se196	0.05	U	mg/L	0.05			-0.00062	0.005	10	-0.0062	05/29/03	20:00
226224	Si2881	34.7		mg/L	0.25			3.47470	0.025	10	34.747	05/29/03	20:00
226224	Sn1899	0.05	U	mg/L	0.05			0.00072	0.005	10	0.0072	05/29/03	20:00
226224	Sr4215	0.290		mg/L	0.05			0.02896	0.005	10	0.2896	05/29/03	20:00
226224	Th2837	0.1	U	mg/L	0.1			-0.00211	0.01	10	-0.0211	05/29/03	20:00
226224	Ti3349	0.05	U	mg/L	0.05			-0.00006	0.005	10	-0.0006	05/29/03	20:00
226224	Tl1908	0.1	U	mg/L	0.1			-0.00045	0.01	10	-0.0045	05/29/03	20:00
226224	V_2924	0.05	U	mg/L	0.05			-0.00033	0.005	10	-0.0033	05/29/03	20:00
226224	W_2079	0.1	U	mg/L	0.1			-0.00029	0.01	10	-0.0029	05/29/03	20:00
226224	Y_3710	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	20:00
226224	Zn2062	0.05	U	mg/L	0.05			0.00172	0.005	10	0.0172	05/29/03	20:00
226224	Zr3496	0.05	U	mg/L	0.05			0.00029	0.005	10	0.0029	05/29/03	20:00
226225	Ag3280	0.05	U	mg/L	0.05			0.00035	0.005	10	0.0035	05/29/03	20:05
226225	Al3082	0.5	U	mg/L	0.5			0.01761	0.05	10	0.1761	05/29/03	20:05
226225	As1890	0.05	U	mg/L	0.05			0.00403	0.005	10	0.0403	05/29/03	20:05
226225	B_2496	0.25	U	mg/L	0.25			-0.00182	0.025	10	-0.0182	05/29/03	20:05
226225	Ba4934	0.431		mg/L	0.05			0.04306	0.005	10	0.4306	05/29/03	20:05
226225	Be3130	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	20:05

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226225	Bi2230	0.15	U	mg/L	0.15				-0.00153	0.015	10	-0.0153	05/29/03	20:05
226225	Ca3179	450		mg/L	1.5				45.00440	0.15	10	450.044	05/29/03	20:05
226225	Cd2265	0.05	U	mg/L	0.05				0.00021	0.005	10	0.0021	05/29/03	20:05
226225	Co2286	0.05	U	mg/L	0.05				0.00202	0.005	10	0.0202	05/29/03	20:05
226225	Cr2677	0.05	U	mg/L	0.05				0.00038	0.005	10	0.0038	05/29/03	20:05
226225	Cu3247	0.05	U	mg/L	0.05				0.00113	0.005	10	0.0113	05/29/03	20:05
226225	Fe2714	0.6	U	mg/L	0.6				0.00809	0.06	10	0.0809	05/29/03	20:05
226225	K_7664	1	U	mg/L	1				0.02748	0.1	10	0.2748	05/29/03	20:05
226225	La3988	0.05	U	mg/L	0.05				0.00086	0.005	10	0.0086	05/29/03	20:05
226225	Li6707	0.05	U	mg/L	0.05				0.00003	0.005	10	0.0003	05/29/03	20:05
226225	Mg2790	0.5	U	mg/L	0.5				0.00401	0.05	10	0.0401	05/29/03	20:05
226225	Mn2576	0.05	U	mg/L	0.05				0.00140	0.005	10	0.014	05/29/03	20:05
226225	Mo2020	0.05	U	mg/L	0.05				-0.00166	0.005	10	-0.0166	05/29/03	20:05
226225	Na5889	1	U	mg/L	1				0.02146	0.1	10	0.2146	05/29/03	20:05
226225	Ni2316	0.05	U	mg/L	0.05				0.00065	0.005	10	0.0065	05/29/03	20:05
226225	P_1782	0.25	U	mg/L	0.25				0.00341	0.025	10	0.0341	05/29/03	20:05
226225	Pb220	0.05	U	mg/L	0.05				0.00163	0.005	10	0.0163	05/29/03	20:05
226225	Pd3404	0.1	U	mg/L	0.1				0.00169	0.01	10	0.0169	05/29/03	20:05
226225	S_1820	0.25	U	mg/L	0.25				0.00864	0.025	10	0.0864	05/29/03	20:05
226225	Sb2068	0.1	U	mg/L	0.1				0.00139	0.01	10	0.0139	05/29/03	20:05
226225	Se196	0.05	U	mg/L	0.05				0.00006	0.005	10	0.0006	05/29/03	20:05
226225	Si2881	35.6		mg/L	0.25				3.56409	0.025	10	35.6409	05/29/03	20:05
226225	Sn1899	0.05	U	mg/L	0.05				0.00039	0.005	10	0.0039	05/29/03	20:05
226225	Sr4215	0.294		mg/L	0.05				0.02935	0.005	10	0.2935	05/29/03	20:05
226225	Th2837	0.1	U	mg/L	0.1				0.00038	0.01	10	0.0038	05/29/03	20:05
226225	Ti3349	0.05	U	mg/L	0.05				-0.00003	0.005	10	-0.0003	05/29/03	20:05
226225	Tl1908	0.1	U	mg/L	0.1				0.00135	0.01	10	0.0135	05/29/03	20:05
226225	V_2924	0.05	U	mg/L	0.05				0.00022	0.005	10	0.0022	05/29/03	20:05
226225	W_2079	0.1	U	mg/L	0.1				0.00063	0.01	10	0.0063	05/29/03	20:05
226225	Y_3710	0.05	U	mg/L	0.05				0.00004	0.005	10	0.0004	05/29/03	20:05
226225	Zn2062	0.05	U	mg/L	0.05				0.00113	0.005	10	0.0113	05/29/03	20:05
226225	Zr3496	0.05	U	mg/L	0.05				-0.00019	0.005	10	-0.0019	05/29/03	20:05
226226	Ag3280	0.05	U	mg/L	0.05				0.00049	0.005	10	0.0049	05/29/03	20:10
226226	Al3082	0.5	U	mg/L	0.5				0.01610	0.05	10	0.161	05/29/03	20:10
226226	As1890	0.05	U	mg/L	0.05				0.00000	0.005	10	0	05/29/03	20:10
226226	B_2496	0.25	U	mg/L	0.25				-0.00302	0.025	10	-0.0302	05/29/03	20:10
226226	Ba4934	0.05	U	mg/L	0.05				0.00037	0.005	10	0.0037	05/29/03	20:10
226226	Be3130	0.05	U	mg/L	0.05				0.00001	0.005	10	0.0001	05/29/03	20:10
226226	Bi2230	0.15	U	mg/L	0.15				0.00458	0.015	10	0.0458	05/29/03	20:10
226226	Ca3179	374		mg/L	1.5				37.42359	0.15	10	374.2359	05/29/03	20:10

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226226	Cd2265	0.05	U	mg/L	0.05				0.00033	0.005	10	0.0033	05/29/03	20:10
226226	Co2286	0.05	U	mg/L	0.05				0.00222	0.005	10	0.0222	05/29/03	20:10
226226	Cr2677	0.05	U	mg/L	0.05				-0.00101	0.005	10	-0.0101	05/29/03	20:10
226226	Cu3247	0.05	U	mg/L	0.05				0.00014	0.005	10	0.0014	05/29/03	20:10
226226	Fe2714	0.6	U	mg/L	0.6				0.00668	0.06	10	0.0668	05/29/03	20:10
226226	K_7664	1	U	mg/L	1				0.07879	0.1	10	0.7879	05/29/03	20:10
226226	La3988	0.05	U	mg/L	0.05				0.00096	0.005	10	0.0096	05/29/03	20:10
226226	Li6707	0.05	U	mg/L	0.05				0.00003	0.005	10	0.0003	05/29/03	20:10
226226	Mg2790	0.5	U	mg/L	0.5				0.00881	0.05	10	0.0881	05/29/03	20:10
226226	Mn2576	0.05	U	mg/L	0.05				0.00000	0.005	10	0	05/29/03	20:10
226226	Mo2020	0.05	U	mg/L	0.05				-0.00195	0.005	10	-0.0195	05/29/03	20:10
226226	Na5889	1	U	mg/L	1				0.06792	0.1	10	0.6792	05/29/03	20:10
226226	Ni2316	0.05	U	mg/L	0.05				-0.00066	0.005	10	-0.0066	05/29/03	20:10
226226	P_1782	0.25	U	mg/L	0.25				-0.00463	0.025	10	-0.0463	05/29/03	20:10
226226	Pb220	0.05	U	mg/L	0.05				0.00067	0.005	10	0.0067	05/29/03	20:10
226226	Pd3404	0.1	U	mg/L	0.1				0.00159	0.01	10	0.0159	05/29/03	20:10
226226	S_1820	0.25	U	mg/L	0.25				0.00847	0.025	10	0.0847	05/29/03	20:10
226226	Sb2068	0.1	U	mg/L	0.1				-0.00182	0.01	10	-0.0182	05/29/03	20:10
226226	Se196	0.05	U	mg/L	0.05				-0.00194	0.005	10	-0.0194	05/29/03	20:10
226226	Si2881	29.5		mg/L	0.25				2.94636	0.025	10	29.4636	05/29/03	20:10
226226	Sn1899	0.05	U	mg/L	0.05				0.00222	0.005	10	0.0222	05/29/03	20:10
226226	Sr4215	0.220		mg/L	0.05				0.02196	0.005	10	0.2196	05/29/03	20:10
226226	Th2837	0.1	U	mg/L	0.1				-0.00488	0.01	10	-0.0488	05/29/03	20:10
226226	Ti3349	0.05	U	mg/L	0.05				-0.00043	0.005	10	-0.0043	05/29/03	20:10
226226	Tl1908	0.1	U	mg/L	0.1				0.00193	0.01	10	0.0193	05/29/03	20:10
226226	V_2924	0.05	U	mg/L	0.05				-0.00112	0.005	10	-0.0112	05/29/03	20:10
226226	W_2079	0.1	U	mg/L	0.1				0.00223	0.01	10	0.0223	05/29/03	20:10
226226	Y_3710	0.05	U	mg/L	0.05				-0.00043	0.005	10	-0.0043	05/29/03	20:10
226226	Zn2062	0.05	U	mg/L	0.05				0.00069	0.005	10	0.0069	05/29/03	20:10
226226	Zr3496	0.05	U	mg/L	0.05				-0.00038	0.005	10	-0.0038	05/29/03	20:10
226226D	Ag3280	0.05	U	mg/L	0.05				0.00038	0.005	10	0.0038	05/29/03	20:14
226226D	Al3082	0.5	U	mg/L	0.5				0.01560	0.05	10	0.156	05/29/03	20:14
226226D	As1890	0.05	U	mg/L	0.05				-0.00011	0.005	10	-0.0011	05/29/03	20:14
226226D	B_2496	0.25	U	mg/L	0.25				-0.00246	0.025	10	-0.0246	05/29/03	20:14
226226D	Ba4934	0.05	U	mg/L	0.05				0.00048	0.005	10	0.0048	05/29/03	20:14
226226D	Be3130	0.05	U	mg/L	0.05				0.00001	0.005	10	0.0001	05/29/03	20:14
226226D	Bi2230	0.15	U	mg/L	0.15				0.00200	0.015	10	0.02	05/29/03	20:14
226226D	Ca3179	373		mg/L	1.5				37.34999	0.15	10	373.4999	05/29/03	20:14
226226D	Cd2265	0.05	U	mg/L	0.05				0.00004	0.005	10	0.0004	05/29/03	20:14
226226D	Co2286	0.05	U	mg/L	0.05				0.00407	0.005	10	0.0407	05/29/03	20:14

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226226D	Cr2677	0.05	U	mg/L	0.05			0.00054	0.005	10	0.0054	05/29/03	20:14
226226D	Cu3247	0.05	U	mg/L	0.05			0.00093	0.005	10	0.0093	05/29/03	20:14
226226D	Fe2714	0.6	U	mg/L	0.6			0.01155	0.06	10	0.1155	05/29/03	20:14
226226D	K_7664	1	U	mg/L	1			0.07916	0.1	10	0.7916	05/29/03	20:14
226226D	La3988	0.05	U	mg/L	0.05			0.00088	0.005	10	0.0088	05/29/03	20:14
226226D	Li6707	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	20:14
226226D	Mg2790	0.5	U	mg/L	0.5			0.00714	0.05	10	0.0714	05/29/03	20:14
226226D	Mn2576	0.05	U	mg/L	0.05			0.00297	0.005	10	0.0297	05/29/03	20:14
226226D	Mo2020	0.05	U	mg/L	0.05			-0.00181	0.005	10	-0.0181	05/29/03	20:14
226226D	Na5889	1	U	mg/L	1			0.06525	0.1	10	0.6525	05/29/03	20:14
226226D	Ni2316	0.05	U	mg/L	0.05			0.00006	0.005	10	0.0006	05/29/03	20:14
226226D	P_1782	0.25	U	mg/L	0.25			-0.00892	0.025	10	-0.0892	05/29/03	20:14
226226D	Pb220	0.05	U	mg/L	0.05			0.00079	0.005	10	0.0079	05/29/03	20:14
226226D	Pd3404	0.1	U	mg/L	0.1			0.00232	0.01	10	0.0232	05/29/03	20:14
226226D	S_1820	0.25	U	mg/L	0.25			0.00738	0.025	10	0.0738	05/29/03	20:14
226226D	Sb2068	0.1	U	mg/L	0.1			-0.00015	0.01	10	-0.0015	05/29/03	20:14
226226D	Se196	0.05	U	mg/L	0.05			-0.00067	0.005	10	-0.0067	05/29/03	20:14
226226D	Si2881	29.2		mg/L	0.25			2.92285	0.025	10	29.2285	05/29/03	20:14
226226D	Sn1899	0.05	U	mg/L	0.05			0.00025	0.005	10	0.0025	05/29/03	20:14
226226D	Sr4215	0.218		mg/L	0.05			0.02179	0.005	10	0.2179	05/29/03	20:14
226226D	Th2837	0.1	U	mg/L	0.1			-0.00059	0.01	10	-0.0059	05/29/03	20:14
226226D	Ti3349	0.05	U	mg/L	0.05			-0.00011	0.005	10	-0.0011	05/29/03	20:14
226226D	Tl1908	0.1	U	mg/L	0.1			0.00094	0.01	10	0.0094	05/29/03	20:14
226226D	V_2924	0.05	U	mg/L	0.05			-0.00013	0.005	10	-0.0013	05/29/03	20:14
226226D	W_2079	0.1	U	mg/L	0.1			0.00165	0.01	10	0.0165	05/29/03	20:14
226226D	Y_3710	0.05	U	mg/L	0.05			-0.00030	0.005	10	-0.003	05/29/03	20:14
226226D	Zn2062	0.05	U	mg/L	0.05			0.00103	0.005	10	0.0103	05/29/03	20:14
226226D	Zr3496	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	20:14
226227	Ag3280	0.05	U	mg/L	0.05			-0.00008	0.005	10	-0.0008	05/29/03	20:19
226227	Al3082	0.5	U	mg/L	0.5			0.01296	0.05	10	0.1296	05/29/03	20:19
226227	As1890	0.05	U	mg/L	0.05			0.00146	0.005	10	0.0146	05/29/03	20:19
226227	B_2496	0.25	U	mg/L	0.25			-0.00309	0.025	10	-0.0309	05/29/03	20:19
226227	Ba4934	0.05	U	mg/L	0.05			0.00041	0.005	10	0.0041	05/29/03	20:19
226227	Be3130	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	20:19
226227	Bi2230	0.15	U	mg/L	0.15			0.00007	0.015	10	0.0007	05/29/03	20:19
226227	Ca3179	358		mg/L	1.5			35.82716	0.15	10	358.2716	05/29/03	20:19
226227	Cd2265	0.05	U	mg/L	0.05			0.00001	0.005	10	0.0001	05/29/03	20:19
226227	Co2286	0.05	U	mg/L	0.05			0.00185	0.005	10	0.0185	05/29/03	20:19
226227	Cr2677	0.05	U	mg/L	0.05			-0.00065	0.005	10	-0.0065	05/29/03	20:19
226227	Cu3247	0.05	U	mg/L	0.05			0.00068	0.005	10	0.0068	05/29/03	20:19

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226227	Fe2714	0.6	U	mg/L	0.6			-0.00597	0.06	10	-0.0597	05/29/03	20:19
226227	K_7664	1.33		mg/L	1			0.13345	0.1	10	1.3345	05/29/03	20:19
226227	La3988	0.05	U	mg/L	0.05			-0.00004	0.005	10	-0.0004	05/29/03	20:19
226227	Li6707	0.05	U	mg/L	0.05			-0.00001	0.005	10	-0.0001	05/29/03	20:19
226227	Mg2790	0.5	U	mg/L	0.5			0.00258	0.05	10	0.0258	05/29/03	20:19
226227	Mn2576	0.05	U	mg/L	0.05			0.00006	0.005	10	0.0006	05/29/03	20:19
226227	Mo2020	0.05	U	mg/L	0.05			-0.00184	0.005	10	-0.0184	05/29/03	20:19
226227	Na5889	1	U	mg/L	1			0.06330	0.1	10	0.633	05/29/03	20:19
226227	Ni2316	0.05	U	mg/L	0.05			-0.00053	0.005	10	-0.0053	05/29/03	20:19
226227	P_1782	0.25	U	mg/L	0.25			-0.00439	0.025	10	-0.0439	05/29/03	20:19
226227	Pb220	0.05	U	mg/L	0.05			0.00075	0.005	10	0.0075	05/29/03	20:19
226227	Pd3404	0.1	U	mg/L	0.1			0.00123	0.01	10	0.0123	05/29/03	20:19
226227	S_1820	0.25	U	mg/L	0.25			0.00166	0.025	10	0.0166	05/29/03	20:19
226227	Sb2068	0.1	U	mg/L	0.1			-0.00022	0.01	10	-0.0022	05/29/03	20:19
226227	Se196	0.05	U	mg/L	0.05			-0.00080	0.005	10	-0.008	05/29/03	20:19
226227	Si2881	27.7		mg/L	0.25			2.77401	0.025	10	27.7401	05/29/03	20:19
226227	Sn1899	0.05	U	mg/L	0.05			0.00017	0.005	10	0.0017	05/29/03	20:19
226227	Sr4215	0.209		mg/L	0.05			0.02087	0.005	10	0.2087	05/29/03	20:19
226227	Th2837	0.1	U	mg/L	0.1			-0.00039	0.01	10	-0.0039	05/29/03	20:19
226227	Ti3349	0.05	U	mg/L	0.05			-0.00014	0.005	10	-0.0014	05/29/03	20:19
226227	Tl1908	0.1	U	mg/L	0.1			-0.00107	0.01	10	-0.0107	05/29/03	20:19
226227	V_2924	0.05	U	mg/L	0.05			-0.00065	0.005	10	-0.0065	05/29/03	20:19
226227	W_2079	0.1	U	mg/L	0.1			0.00114	0.01	10	0.0114	05/29/03	20:19
226227	Y_3710	0.05	U	mg/L	0.05			-0.00030	0.005	10	-0.003	05/29/03	20:19
226227	Zn2062	0.05	U	mg/L	0.05			0.00446	0.005	10	0.0446	05/29/03	20:19
226227	Zr3496	0.05	U	mg/L	0.05			0.00046	0.005	10	0.0046	05/29/03	20:19
226227S	Ag3280	0.514		mg/L	0.05	0.5	102.7%	0.05137	0.005	10	0.5137	05/29/03	20:24
226227S	Al3082	19.7		mg/L	0.5	20	98.6%	1.97220	0.05	10	19.722	05/29/03	20:24
226227S	As1890	20.4		mg/L	0.05	20	101.9%	2.03802	0.005	10	20.3802	05/29/03	20:24
226227S	B_2496	0.25	U	mg/L	0.25			-0.00328	0.025	10	-0.0328	05/29/03	20:24
226227S	Ba4934	20.5		mg/L	0.05	20	102.6%	2.05261	0.005	10	20.5261	05/29/03	20:24
226227S	Be3130	0.488		mg/L	0.05	0.5	97.7%	0.04883	0.005	10	0.4883	05/29/03	20:24
226227S	Bi2230	0.15	U	mg/L	0.15			0.00044	0.015	10	0.0044	05/29/03	20:24
226227S	Ca3179	553		mg/L	1.5	200	97.7%	55.33940	0.15	10	553.394	05/29/03	20:24
226227S	Cd2265	0.516		mg/L	0.05	0.5	103.1%	0.05157	0.005	10	0.5157	05/29/03	20:24
226227S	Co2286	5.06		mg/L	0.05	5	101.2%	0.50620	0.005	10	5.062	05/29/03	20:24
226227S	Cr2677	1.93		mg/L	0.05	2	96.4%	0.19282	0.005	10	1.9282	05/29/03	20:24
226227S	Cu3247	2.54		mg/L	0.05	2.5	101.8%	0.25441	0.005	10	2.5441	05/29/03	20:24
226227S	Fe2714	11.2		mg/L	0.6	10	111.8%	1.11751	0.06	10	11.1751	05/29/03	20:24
226227S	K_7664	182		mg/L	1	200	90.2%	18.17614	0.1	10	181.7614	05/29/03	20:24

010171

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to#030520-13
06002.01.071

system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226227S	La3988	0.05	U	mg/L	0.05			0.00071	0.005	10	0.0071	05/29/03	20:24
226227S	Li6707	0.05	U	mg/L	0.05			0.00016	0.005	10	0.0016	05/29/03	20:24
226227S	Mg2790	205		mg/L	0.5	200	102.4%	20.47094	0.05	10	204.7094	05/29/03	20:24
226227S	Mn2576	5.10		mg/L	0.05	5	102.0%	0.50979	0.005	10	5.0979	05/29/03	20:24
226227S	Mo2020	0.05	U	mg/L	0.05			-0.00154	0.005	10	-0.0154	05/29/03	20:24
226227S	Na3302	187		mg/L	1	200	93.3%	18.66670	0.1	10	186.667	05/29/03	20:24
226227S	Ni2316	4.81		mg/L	0.05	5	96.2%	0.48084	0.005	10	4.8084	05/29/03	20:24
226227S	P_1782	0.25	U	mg/L	0.25			0.00097	0.025	10	0.0097	05/29/03	20:24
226227S	Pb220	5.16		mg/L	0.05	5	103.2%	0.51593	0.005	10	5.1593	05/29/03	20:24
226227S	Pd3404	0.1	U	mg/L	0.1			0.00563	0.01	10	0.0563	05/29/03	20:24
226227S	S_1820	0.25	U	mg/L	0.25			-0.00854	0.025	10	-0.0854	05/29/03	20:24
226227S	Sb2068	4.97		mg/L	0.1	5	99.3%	0.49652	0.01	10	4.9652	05/29/03	20:24
226227S	Se196	20.9		mg/L	0.05	20	104.6%	2.09139	0.005	10	20.9139	05/29/03	20:24
226227S	Si2881	69.1		mg/L	0.25	40	103.4%	6.90586	0.025	10	69.0586	05/29/03	20:24
226227S	Sn1899	0.05	U	mg/L	0.05			-0.00095	0.005	10	-0.0095	05/29/03	20:24
226227S	Sr4215	0.211		mg/L	0.05			0.02114	0.005	10	0.2114	05/29/03	20:24
226227S	Th2837	0.1	U	mg/L	0.1			-0.01405	0.01	10	-0.1405	05/29/03	20:24
226227S	Ti3349	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	20:24
226227S	Tl1908	21.0		mg/L	0.1	20	105.2%	2.10458	0.01	10	21.0458	05/29/03	20:24
226227S	V_2924	5.09		mg/L	0.05	5	101.8%	0.50892	0.005	10	5.0892	05/29/03	20:24
226227S	W_2079	0.1	U	mg/L	0.1			0.00074	0.01	10	0.0074	05/29/03	20:24
226227S	Y_3710	0.05	U	mg/L	0.05			-0.00027	0.005	10	-0.0027	05/29/03	20:24
226227S	Zn2062	5.16		mg/L	0.05	5	103.3%	0.51629	0.005	10	5.1629	05/29/03	20:24
226227S	Zr3496	0.05	U	mg/L	0.05			0.00094	0.005	10	0.0094	05/29/03	20:24
226228	Ag3280	0.05	U	mg/L	0.05			-0.00040	0.005	10	-0.004	05/29/03	20:43
226228	Al3082	0.5	U	mg/L	0.5			0.01025	0.05	10	0.1025	05/29/03	20:43
226228	As1890	0.05	U	mg/L	0.05			-0.00035	0.005	10	-0.0035	05/29/03	20:43
226228	B_2496	0.25	U	mg/L	0.25			0.00150	0.025	10	0.015	05/29/03	20:43
226228	Ba4934	0.05	U	mg/L	0.05			0.00079	0.005	10	0.0079	05/29/03	20:43
226228	Be3130	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	20:43
226228	Bi2230	0.15	U	mg/L	0.15			-0.00051	0.015	10	-0.0051	05/29/03	20:43
226228	Ca3179	474		mg/L	1.5			47.40875	0.15	10	474.0875	05/29/03	20:43
226228	Cd2265	0.05	U	mg/L	0.05			0.00017	0.005	10	0.0017	05/29/03	20:43
226228	Co2286	0.05	U	mg/L	0.05			0.00336	0.005	10	0.0336	05/29/03	20:43
226228	Cr2677	0.05	U	mg/L	0.05			0.00075	0.005	10	0.0075	05/29/03	20:43
226228	Cu3247	0.05	U	mg/L	0.05			0.00401	0.005	10	0.0401	05/29/03	20:43
226228	Fe2714	0.6	U	mg/L	0.6			0.00895	0.06	10	0.0895	05/29/03	20:43
226228	K_7664	1	U	mg/L	1			0.06697	0.1	10	0.6697	05/29/03	20:43
226228	La3988	0.05	U	mg/L	0.05			0.00015	0.005	10	0.0015	05/29/03	20:43
226228	Li6707	0.05	U	mg/L	0.05			0.00011	0.005	10	0.0011	05/29/03	20:43

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226228	Mg2790	0.5	U	mg/L	0.5				0.00610	0.05	10	0.061	05/29/03	20:43
226228	Mn2576	0.05	U	mg/L	0.05				0.00023	0.005	10	0.0023	05/29/03	20:43
226228	Mo2020	0.05	U	mg/L	0.05				-0.00029	0.005	10	-0.0029	05/29/03	20:43
226228	Na5889	1.48		mg/L	1				0.14823	0.1	10	1.4823	05/29/03	20:43
226228	Ni2316	0.05	U	mg/L	0.05				-0.00011	0.005	10	-0.0011	05/29/03	20:43
226228	P_1782	0.25	U	mg/L	0.25				-0.00179	0.025	10	-0.0179	05/29/03	20:43
226228	Pb220	0.05	U	mg/L	0.05				0.00004	0.005	10	0.0004	05/29/03	20:43
226228	Pd3404	0.1	U	mg/L	0.1				0.00205	0.01	10	0.0205	05/29/03	20:43
226228	S_1820	0.25	U	mg/L	0.25				0.00387	0.025	10	0.0387	05/29/03	20:43
226228	Sb2068	0.1	U	mg/L	0.1				0.00134	0.01	10	0.0134	05/29/03	20:43
226228	Se196	0.05	U	mg/L	0.05				-0.00163	0.005	10	-0.0163	05/29/03	20:43
226228	Si2881	39.1		mg/L	0.25				3.90653	0.025	10	39.0653	05/29/03	20:43
226228	Sn1899	0.05	U	mg/L	0.05				0.00137	0.005	10	0.0137	05/29/03	20:43
226228	Sr4215	0.274		mg/L	0.05				0.02744	0.005	10	0.2744	05/29/03	20:43
226228	Th2837	0.1	U	mg/L	0.1				0.00144	0.01	10	0.0144	05/29/03	20:43
226228	Ti3349	0.05	U	mg/L	0.05				0.00003	0.005	10	0.0003	05/29/03	20:43
226228	Tl1908	0.1	U	mg/L	0.1				-0.00174	0.01	10	-0.0174	05/29/03	20:43
226228	V_2924	0.05	U	mg/L	0.05				0.00053	0.005	10	0.0053	05/29/03	20:43
226228	W_2079	0.1	U	mg/L	0.1				0.00196	0.01	10	0.0196	05/29/03	20:43
226228	Y_3710	0.05	U	mg/L	0.05				-0.00021	0.005	10	-0.0021	05/29/03	20:43
226228	Zn2062	0.05	U	mg/L	0.05				0.00098	0.005	10	0.0098	05/29/03	20:43
226228	Zr3496	0.05	U	mg/L	0.05				0.00099	0.005	10	0.0099	05/29/03	20:43
226229	Ag3280	0.05	U	mg/L	0.05				0.00127	0.005	10	0.0127	05/29/03	20:48
226229	Al3082	0.5	U	mg/L	0.5				0.01743	0.05	10	0.1743	05/29/03	20:48
226229	As1890	0.05	U	mg/L	0.05				0.00105	0.005	10	0.0105	05/29/03	20:48
226229	B_2496	0.25	U	mg/L	0.25				-0.00117	0.025	10	-0.0117	05/29/03	20:48
226229	Ba4934	0.05	U	mg/L	0.05				0.00121	0.005	10	0.0121	05/29/03	20:48
226229	Be3130	0.05	U	mg/L	0.05				0.00004	0.005	10	0.0004	05/29/03	20:48
226229	Bi2230	0.15	U	mg/L	0.15				0.00551	0.015	10	0.0551	05/29/03	20:48
226229	Ca3179	439		mg/L	1.5				43.93608	0.15	10	439.3608	05/29/03	20:48
226229	Cd2265	0.05	U	mg/L	0.05				0.00036	0.005	10	0.0036	05/29/03	20:48
226229	Co2286	0.05	U	mg/L	0.05				0.00409	0.005	10	0.0409	05/29/03	20:48
226229	Cr2677	0.05	U	mg/L	0.05				-0.00009	0.005	10	-0.0009	05/29/03	20:48
226229	Cu3247	0.05	U	mg/L	0.05				0.00087	0.005	10	0.0087	05/29/03	20:48
226229	Fe2714	0.6	U	mg/L	0.6				0.01031	0.06	10	0.1031	05/29/03	20:48
226229	K_7664	2.07		mg/L	1				0.20744	0.1	10	2.0744	05/29/03	20:48
226229	La3988	0.05	U	mg/L	0.05				0.00236	0.005	10	0.0236	05/29/03	20:48
226229	Li6707	0.05	U	mg/L	0.05				0.00007	0.005	10	0.0007	05/29/03	20:48
226229	Mg2790	0.5	U	mg/L	0.5				0.01568	0.05	10	0.1568	05/29/03	20:48
226229	Mn2576	0.05	U	mg/L	0.05				0.00017	0.005	10	0.0017	05/29/03	20:48

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226229	Mo2020	0.05	U	mg/L	0.05				-0.00124	0.005	10	-0.0124	05/29/03	20:48
226229	Na5889	1	U	mg/L	1				0.09914	0.1	10	0.9914	05/29/03	20:48
226229	Ni2316	0.05	U	mg/L	0.05				0.00019	0.005	10	0.0019	05/29/03	20:48
226229	P_1782	0.25	U	mg/L	0.25				0.00287	0.025	10	0.0287	05/29/03	20:48
226229	Pb220	0.05	U	mg/L	0.05				-0.00099	0.005	10	-0.0099	05/29/03	20:48
226229	Pd3404	0.1	U	mg/L	0.1				0.00144	0.01	10	0.0144	05/29/03	20:48
226229	S_1820	0.25	U	mg/L	0.25				0.00021	0.025	10	0.0021	05/29/03	20:48
226229	Sb2068	0.1	U	mg/L	0.1				-0.00014	0.01	10	-0.0014	05/29/03	20:48
226229	Se196	0.05	U	mg/L	0.05				-0.00225	0.005	10	-0.0225	05/29/03	20:48
226229	Si2881	41.3		mg/L	0.25				4.12894	0.025	10	41.2894	05/29/03	20:48
226229	Sn1899	0.05	U	mg/L	0.05				0.00019	0.005	10	0.0019	05/29/03	20:48
226229	Sr4215	0.261		mg/L	0.05				0.02607	0.005	10	0.2607	05/29/03	20:48
226229	Th2837	0.1	U	mg/L	0.1				-0.00290	0.01	10	-0.029	05/29/03	20:48
226229	Ti3349	0.05	U	mg/L	0.05				-0.00015	0.005	10	-0.0015	05/29/03	20:48
226229	Tl1908	0.1	U	mg/L	0.1				-0.00093	0.01	10	-0.0093	05/29/03	20:48
226229	V_2924	0.05	U	mg/L	0.05				-0.00028	0.005	10	-0.0028	05/29/03	20:48
226229	W_2079	0.1	U	mg/L	0.1				0.00196	0.01	10	0.0196	05/29/03	20:48
226229	Y_3710	0.05	U	mg/L	0.05				-0.00027	0.005	10	-0.0027	05/29/03	20:48
226229	Zn2062	0.05	U	mg/L	0.05				0.00093	0.005	10	0.0093	05/29/03	20:48
226229	Zr3496	0.05	U	mg/L	0.05				0.00160	0.005	10	0.016	05/29/03	20:48
226230	Ag3280	0.05	U	mg/L	0.05				0.00016	0.005	10	0.0016	05/29/03	20:53
226230	Al3082	0.5	U	mg/L	0.5				0.01630	0.05	10	0.163	05/29/03	20:53
226230	As1890	0.05	U	mg/L	0.05				0.00144	0.005	10	0.0144	05/29/03	20:53
226230	B_2496	0.25	U	mg/L	0.25				-0.00156	0.025	10	-0.0156	05/29/03	20:53
226230	Ba4934	0.05	U	mg/L	0.05				0.00074	0.005	10	0.0074	05/29/03	20:53
226230	Be3130	0.05	U	mg/L	0.05				0.00002	0.005	10	0.0002	05/29/03	20:53
226230	Bi2230	0.15	U	mg/L	0.15				-0.00030	0.015	10	-0.003	05/29/03	20:53
226230	Ca3179	455		mg/L	1.5				45.54320	0.15	10	455.432	05/29/03	20:53
226230	Cd2265	0.05	U	mg/L	0.05				0.00013	0.005	10	0.0013	05/29/03	20:53
226230	Co2286	0.05	U	mg/L	0.05				0.00013	0.005	10	0.0013	05/29/03	20:53
226230	Cr2677	0.05	U	mg/L	0.05				-0.00024	0.005	10	-0.0024	05/29/03	20:53
226230	Cu3247	0.05	U	mg/L	0.05				0.00081	0.005	10	0.0081	05/29/03	20:53
226230	Fe2714	0.6	U	mg/L	0.6				0.01990	0.06	10	0.199	05/29/03	20:53
226230	K_7664	1	U	mg/L	1				0.04285	0.1	10	0.4285	05/29/03	20:53
226230	La3988	0.05	U	mg/L	0.05				0.00079	0.005	10	0.0079	05/29/03	20:53
226230	Li6707	0.05	U	mg/L	0.05				0.00006	0.005	10	0.0006	05/29/03	20:53
226230	Mg2790	0.5	U	mg/L	0.5				0.01054	0.05	10	0.1054	05/29/03	20:53
226230	Mn2576	0.05	U	mg/L	0.05				0.00027	0.005	10	0.0027	05/29/03	20:53
226230	Mo2020	0.05	U	mg/L	0.05				-0.00164	0.005	10	-0.0164	05/29/03	20:53
226230	Na5889	1.70		mg/L	1				0.17027	0.1	10	1.7027	05/29/03	20:53

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226230	Ni2316	0.05	U	mg/L	0.05			-0.00043	0.005	10	-0.0043	05/29/03	20:53
226230	P_1782	0.25	U	mg/L	0.25			0.00094	0.025	10	0.0094	05/29/03	20:53
226230	Pb220	0.05	U	mg/L	0.05			0.00111	0.005	10	0.0111	05/29/03	20:53
226230	Pd3404	0.1	U	mg/L	0.1			0.00268	0.01	10	0.0268	05/29/03	20:53
226230	S_1820	0.25	U	mg/L	0.25			0.00203	0.025	10	0.0203	05/29/03	20:53
226230	Sb2068	0.1	U	mg/L	0.1			0.00092	0.01	10	0.0092	05/29/03	20:53
226230	Se196	0.05	U	mg/L	0.05			-0.00147	0.005	10	-0.0147	05/29/03	20:53
226230	Si2881	35.3		mg/L	0.25			3.53474	0.025	10	35.3474	05/29/03	20:53
226230	Sn1899	0.05	U	mg/L	0.05			0.00173	0.005	10	0.0173	05/29/03	20:53
226230	Sr4215	0.264		mg/L	0.05			0.02635	0.005	10	0.2635	05/29/03	20:53
226230	Th2837	0.1	U	mg/L	0.1			-0.00075	0.01	10	-0.0075	05/29/03	20:53
226230	Ti3349	0.05	U	mg/L	0.05			-0.00008	0.005	10	-0.0008	05/29/03	20:53
226230	Tl1908	0.1	U	mg/L	0.1			-0.00208	0.01	10	-0.0208	05/29/03	20:53
226230	V_2924	0.05	U	mg/L	0.05			-0.00011	0.005	10	-0.0011	05/29/03	20:53
226230	W_2079	0.1	U	mg/L	0.1			-0.00024	0.01	10	-0.0024	05/29/03	20:53
226230	Y_3710	0.05	U	mg/L	0.05			-0.00023	0.005	10	-0.0023	05/29/03	20:53
226230	Zn2062	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	20:53
226230	Zr3496	0.05	U	mg/L	0.05			0.00198	0.005	10	0.0198	05/29/03	20:53
226231	Ag3280	0.05	U	mg/L	0.05			-0.00031	0.005	10	-0.0031	05/29/03	20:57
226231	Al3082	0.5	U	mg/L	0.5			0.00960	0.05	10	0.096	05/29/03	20:57
226231	As1890	0.05	U	mg/L	0.05			-0.00038	0.005	10	-0.0038	05/29/03	20:57
226231	B_2496	0.25	U	mg/L	0.25			-0.00259	0.025	10	-0.0259	05/29/03	20:57
226231	Ba4934	0.05	U	mg/L	0.05			0.00115	0.005	10	0.0115	05/29/03	20:57
226231	Be3130	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	20:57
226231	Bi2230	0.15	U	mg/L	0.15			0.00135	0.015	10	0.0135	05/29/03	20:57
226231	Ca3179	397		mg/L	1.5			39.70044	0.15	10	397.0044	05/29/03	20:57
226231	Cd2265	0.05	U	mg/L	0.05			0.00011	0.005	10	0.0011	05/29/03	20:57
226231	Co2286	0.05	U	mg/L	0.05			-0.00048	0.005	10	-0.0048	05/29/03	20:57
226231	Cr2677	0.05	U	mg/L	0.05			0.00049	0.005	10	0.0049	05/29/03	20:57
226231	Cu3247	0.05	U	mg/L	0.05			0.00242	0.005	10	0.0242	05/29/03	20:57
226231	Fe2714	0.6	U	mg/L	0.6			0.00205	0.06	10	0.0205	05/29/03	20:57
226231	K_7664	1	U	mg/L	1			0.07807	0.1	10	0.7807	05/29/03	20:57
226231	La3988	0.05	U	mg/L	0.05			0.00089	0.005	10	0.0089	05/29/03	20:57
226231	Li6707	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	20:57
226231	Mg2790	0.5	U	mg/L	0.5			0.00885	0.05	10	0.0885	05/29/03	20:57
226231	Mn2576	0.05	U	mg/L	0.05			0.00021	0.005	10	0.0021	05/29/03	20:57
226231	Mo2020	0.05	U	mg/L	0.05			-0.00178	0.005	10	-0.0178	05/29/03	20:57
226231	Na5889	1	U	mg/L	1			0.05125	0.1	10	0.5125	05/29/03	20:57
226231	Ni2316	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	20:57
226231	P_1782	0.25	U	mg/L	0.25			-0.00202	0.025	10	-0.0202	05/29/03	20:57

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226231	Pb220	0.05	U	mg/L	0.05			-0.00036	0.005	10	-0.0036	05/29/03	20:57
226231	Pd3404	0.1	U	mg/L	0.1			0.00198	0.01	10	0.0198	05/29/03	20:57
226231	S_1820	0.25	U	mg/L	0.25			-0.00295	0.025	10	-0.0295	05/29/03	20:57
226231	Sb2068	0.1	U	mg/L	0.1			-0.00077	0.01	10	-0.0077	05/29/03	20:57
226231	Se196	0.05	U	mg/L	0.05			0.00075	0.005	10	0.0075	05/29/03	20:57
226231	Si2881	37.1		mg/L	0.25			3.71323	0.025	10	37.1323	05/29/03	20:57
226231	Sn1899	0.05	U	mg/L	0.05			0.00159	0.005	10	0.0159	05/29/03	20:57
226231	Sr4215	0.238		mg/L	0.05			0.02376	0.005	10	0.2376	05/29/03	20:57
226231	Th2837	0.1	U	mg/L	0.1			0.00127	0.01	10	0.0127	05/29/03	20:57
226231	Ti3349	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	20:57
226231	Tl1908	0.1	U	mg/L	0.1			-0.00101	0.01	10	-0.0101	05/29/03	20:57
226231	V_2924	0.05	U	mg/L	0.05			-0.00012	0.005	10	-0.0012	05/29/03	20:57
226231	W_2079	0.1	U	mg/L	0.1			-0.00083	0.01	10	-0.0083	05/29/03	20:57
226231	Y_3710	0.05	U	mg/L	0.05			-0.00018	0.005	10	-0.0018	05/29/03	20:57
226231	Zn2062	0.05	U	mg/L	0.05			0.00037	0.005	10	0.0037	05/29/03	20:57
226231	Zr3496	0.05	U	mg/L	0.05			0.00137	0.005	10	0.0137	05/29/03	20:57
226232	Ag3280	0.05	U	mg/L	0.05			0.00014	0.005	10	0.0014	05/29/03	21:02
226232	Al3082	0.5	U	mg/L	0.5			0.00829	0.05	10	0.0829	05/29/03	21:02
226232	As1890	0.05	U	mg/L	0.05			0.00021	0.005	10	0.0021	05/29/03	21:02
226232	B_2496	0.25	U	mg/L	0.25			-0.00227	0.025	10	-0.0227	05/29/03	21:02
226232	Ba4934	0.05	U	mg/L	0.05			0.00057	0.005	10	0.0057	05/29/03	21:02
226232	Be3130	0.05	U	mg/L	0.05			0.00001	0.005	10	0.0001	05/29/03	21:02
226232	Bi2230	0.15	U	mg/L	0.15			-0.00175	0.015	10	-0.0175	05/29/03	21:02
226232	Ca3179	412		mg/L	1.5			41.23488	0.15	10	412.3488	05/29/03	21:02
226232	Cd2265	0.05	U	mg/L	0.05			0.00008	0.005	10	0.0008	05/29/03	21:02
226232	Co2286	0.05	U	mg/L	0.05			-0.00011	0.005	10	-0.0011	05/29/03	21:02
226232	Cr2677	0.05	U	mg/L	0.05			-0.00049	0.005	10	-0.0049	05/29/03	21:02
226232	Cu3247	0.05	U	mg/L	0.05			0.00110	0.005	10	0.011	06/09/03	
226232	Fe2714	0.6	U	mg/L	0.6			-0.00872	0.06	10	-0.0872	05/29/03	21:02
226232	K_7664	1	U	mg/L	1			0.00832	0.1	10	0.0832	05/29/03	21:02
226232	La3988	0.05	U	mg/L	0.05			0.00066	0.005	10	0.0066	05/29/03	21:02
226232	Li6707	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	21:02
226232	Mg2790	0.5	U	mg/L	0.5			0.00613	0.05	10	0.0613	05/29/03	21:02
226232	Mn2576	0.05	U	mg/L	0.05			0.00020	0.005	10	0.002	05/29/03	21:02
226232	Mo2020	0.05	U	mg/L	0.05			-0.00131	0.005	10	-0.0131	05/29/03	21:02
226232	Na5889	1	U	mg/L	1			0.01952	0.1	10	0.1952	05/29/03	21:02
226232	Ni2316	0.05	U	mg/L	0.05			-0.00023	0.005	10	-0.0023	05/29/03	21:02
226232	P_1782	0.25	U	mg/L	0.25			-0.00061	0.025	10	-0.0061	05/29/03	21:02
226232	Pb220	0.05	U	mg/L	0.05			0.00044	0.005	10	0.0044	05/29/03	21:02
226232	Pd3404	0.1	U	mg/L	0.1			-0.00179	0.01	10	-0.0179	05/29/03	21:02

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226232	S_1820	0.25	U	mg/L	0.25				0.00242	0.025	10	0.0242	05/29/03	21:02
226232	Sb2068	0.1	U	mg/L	0.1				-0.00091	0.01	10	-0.0091	05/29/03	21:02
226232	Se196	0.05	U	mg/L	0.05				-0.00051	0.005	10	-0.0051	05/29/03	21:02
226232	Si2881	31.2		mg/L	0.25				3.12323	0.025	10	31.2323	05/29/03	21:02
226232	Sn1899	0.05	U	mg/L	0.05				0.00099	0.005	10	0.0099	05/29/03	21:02
226232	Sr4215	0.239		mg/L	0.05				0.02390	0.005	10	0.239	05/29/03	21:02
226232	Th2837	0.1	U	mg/L	0.1				-0.00015	0.01	10	-0.0015	05/29/03	21:02
226232	Ti3349	0.05	U	mg/L	0.05				-0.00009	0.005	10	-0.0009	05/29/03	21:02
226232	Tl1908	0.1	U	mg/L	0.1				-0.00162	0.01	10	-0.0162	05/29/03	21:02
226232	V_2924	0.05	U	mg/L	0.05				-0.00034	0.005	10	-0.0034	05/29/03	21:02
226232	W_2079	0.1	U	mg/L	0.1				0.00037	0.01	10	0.0037	05/29/03	21:02
226232	Y_3710	0.05	U	mg/L	0.05				-0.00029	0.005	10	-0.0029	05/29/03	21:02
226232	Zn2062	0.05	U	mg/L	0.05				0.00003	0.005	10	0.0003	05/29/03	21:02
226232	Zr3496	0.05	U	mg/L	0.05				-0.00013	0.005	10	-0.0013	05/29/03	21:02
226233	Ag3280	0.05	U	mg/L	0.05				-0.00022	0.005	10	-0.0022	05/29/03	21:07
226233	Al3082	0.5	U	mg/L	0.5				0.01021	0.05	10	0.1021	05/29/03	21:07
226233	As1890	0.05	U	mg/L	0.05				0.00220	0.005	10	0.022	05/29/03	21:07
226233	B_2496	0.25	U	mg/L	0.25				-0.00227	0.025	10	-0.0227	05/29/03	21:07
226233	Ba4934	0.05	U	mg/L	0.05				0.00089	0.005	10	0.0089	05/29/03	21:07
226233	Be3130	0.05	U	mg/L	0.05				0.00004	0.005	10	0.0004	05/29/03	21:07
226233	Bi2230	0.15	U	mg/L	0.15				0.00265	0.015	10	0.0265	05/29/03	21:07
226233	Ca3179	403		mg/L	1.5				40.29916	0.15	10	402.9916	05/29/03	21:07
226233	Cd2265	0.05	U	mg/L	0.05				0.00014	0.005	10	0.0014	05/29/03	21:07
226233	Co2286	0.05	U	mg/L	0.05				0.00031	0.005	10	0.0031	05/29/03	21:07
226233	Cr2677	0.05	U	mg/L	0.05				0.00124	0.005	10	0.0124	05/29/03	21:07
226233	Cu3247	0.05	U	mg/L	0.05				0.00131	0.005	10	0.0131	05/29/03	21:07
226233	Fe2714	0.6	U	mg/L	0.6				0.01033	0.06	10	0.1033	05/29/03	21:07
226233	K_7664	1	U	mg/L	1				0.06950	0.1	10	0.695	05/29/03	21:07
226233	La3988	0.05	U	mg/L	0.05				0.00110	0.005	10	0.011	05/29/03	21:07
226233	Li6707	0.05	U	mg/L	0.05				0.00004	0.005	10	0.0004	05/29/03	21:07
226233	Mg2790	0.5	U	mg/L	0.5				0.00522	0.05	10	0.0522	05/29/03	21:07
226233	Mn2576	0.05	U	mg/L	0.05				0.00098	0.005	10	0.0098	05/29/03	21:07
226233	Mo2020	0.05	U	mg/L	0.05				-0.00137	0.005	10	-0.0137	05/29/03	21:07
226233	Na5889	2.29		mg/L	1				0.22938	0.1	10	2.2938	05/29/03	21:07
226233	Ni2316	0.05	U	mg/L	0.05				0.00012	0.005	10	0.0012	05/29/03	21:07
226233	P_1782	0.25	U	mg/L	0.25				-0.00145	0.025	10	-0.0145	05/29/03	21:07
226233	Pb220	0.05	U	mg/L	0.05				-0.00010	0.005	10	-0.001	05/29/03	21:07
226233	Pd3404	0.1	U	mg/L	0.1				0.00261	0.01	10	0.0261	05/29/03	21:07
226233	S_1820	0.25	U	mg/L	0.25				0.00193	0.025	10	0.0193	05/29/03	21:07
226233	Sb2068	0.1	U	mg/L	0.1				0.00412	0.01	10	0.0412	05/29/03	21:07

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226233	Se196	0.05	U	mg/L	0.05				-0.00042	0.005	10	-0.0042	05/29/03	21:07
226233	Si2881	33.9		mg/L	0.25				3.39278	0.025	10	33.9278	05/29/03	21:07
226233	Sn1899	0.05	U	mg/L	0.05				0.00102	0.005	10	0.0102	05/29/03	21:07
226233	Sr4215	0.237		mg/L	0.05				0.02366	0.005	10	0.2366	05/29/03	21:07
226233	Th2837	0.1	U	mg/L	0.1				0.00063	0.01	10	0.0063	05/29/03	21:07
226233	Ti3349	0.05	U	mg/L	0.05				0.00008	0.005	10	0.0008	05/29/03	21:07
226233	Tl1908	0.1	U	mg/L	0.1				-0.00024	0.01	10	-0.0024	05/29/03	21:07
226233	V_2924	0.05	U	mg/L	0.05				0.00078	0.005	10	0.0078	05/29/03	21:07
226233	W_2079	0.1	U	mg/L	0.1				0.00179	0.01	10	0.0179	05/29/03	21:07
226233	Y_3710	0.05	U	mg/L	0.05				-0.00008	0.005	10	-0.0008	05/29/03	21:07
226233	Zn2062	0.05	U	mg/L	0.05				0.00026	0.005	10	0.0026	05/29/03	21:07
226233	Zr3496	0.05	U	mg/L	0.05				0.00254	0.005	10	0.0254	05/29/03	21:07
226234	Ag3280	0.05	U	mg/L	0.05				0.00060	0.005	10	0.006	05/29/03	21:12
226234	Al3082	0.5	U	mg/L	0.5				0.00939	0.05	10	0.0939	05/29/03	21:12
226234	As1890	0.05	U	mg/L	0.05				0.00044	0.005	10	0.0044	05/29/03	21:12
226234	B_2496	0.25	U	mg/L	0.25				-0.00256	0.025	10	-0.0256	05/29/03	21:12
226234	Ba4934	0.191		mg/L	0.05				0.01914	0.005	10	0.1914	05/29/03	21:12
226234	Be3130	0.05	U	mg/L	0.05				0.00002	0.005	10	0.0002	05/29/03	21:12
226234	Bi2230	0.15	U	mg/L	0.15				0.00384	0.015	10	0.0384	05/29/03	21:12
226234	Ca3179	398		mg/L	1.5				39.84242	0.15	10	398.4242	05/29/03	21:12
226234	Cd2265	0.05	U	mg/L	0.05				0.00009	0.005	10	0.0009	05/29/03	21:12
226234	Co2286	0.05	U	mg/L	0.05				0.00259	0.005	10	0.0259	05/29/03	21:12
226234	Cr2677	0.05	U	mg/L	0.05				0.00038	0.005	10	0.0038	05/29/03	21:12
226234	Cu3247	0.05	U	mg/L	0.05				0.00137	0.005	10	0.0137	05/29/03	21:12
226234	Fe2714	0.6	U	mg/L	0.6				0.00816	0.06	10	0.0816	05/29/03	21:12
226234	K_7664	1	U	mg/L	1				0.02608	0.1	10	0.2608	05/29/03	21:12
226234	La3988	0.05	U	mg/L	0.05				0.00108	0.005	10	0.0108	05/29/03	21:12
226234	Li6707	0.05	U	mg/L	0.05				0.00002	0.005	10	0.0002	05/29/03	21:12
226234	Mg2790	0.5	U	mg/L	0.5				0.01161	0.05	10	0.1161	05/29/03	21:12
226234	Mn2576	0.05	U	mg/L	0.05				0.00075	0.005	10	0.0075	05/29/03	21:12
226234	Mo2020	0.05	U	mg/L	0.05				-0.00093	0.005	10	-0.0093	05/29/03	21:12
226234	Na5889	1	U	mg/L	1				0.01550	0.1	10	0.155	05/29/03	21:12
226234	Ni2316	0.05	U	mg/L	0.05				0.00019	0.005	10	0.0019	05/29/03	21:12
226234	P_1782	0.25	U	mg/L	0.25				-0.00545	0.025	10	-0.0545	05/29/03	21:12
226234	Pb220	0.05	U	mg/L	0.05				0.00127	0.005	10	0.0127	05/29/03	21:12
226234	Pd3404	0.1	U	mg/L	0.1				0.00367	0.01	10	0.0367	05/29/03	21:12
226234	S_1820	0.25	U	mg/L	0.25				0.00627	0.025	10	0.0627	05/29/03	21:12
226234	Sb2068	0.1	U	mg/L	0.1				-0.00009	0.01	10	-0.0009	05/29/03	21:12
226234	Se196	0.05	U	mg/L	0.05				0.00070	0.005	10	0.007	05/29/03	21:12
226234	Si2881	31.8		mg/L	0.25				3.17850	0.025	10	31.785	05/29/03	21:12

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226234	Sn1899	0.05	U	mg/L	0.05			0.00043	0.005	10	0.0043	05/29/03	21:12
226234	Sr4215	0.261		mg/L	0.05			0.02608	0.005	10	0.2608	05/29/03	21:12
226234	Th2837	0.1	U	mg/L	0.1			0.00036	0.01	10	0.0036	05/29/03	21:12
226234	Ti3349	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	21:12
226234	Tl1908	0.1	U	mg/L	0.1			-0.00122	0.01	10	-0.0122	05/29/03	21:12
226234	V_2924	0.05	U	mg/L	0.05			-0.00006	0.005	10	-0.0006	05/29/03	21:12
226234	W_2079	0.1	U	mg/L	0.1			0.00258	0.01	10	0.0258	05/29/03	21:12
226234	Y_3710	0.05	U	mg/L	0.05			-0.00014	0.005	10	-0.0014	05/29/03	21:12
226234	Zn2062	0.05	U	mg/L	0.05			0.00021	0.005	10	0.0021	05/29/03	21:12
226234	Zr3496	0.05	U	mg/L	0.05			0.00009	0.005	10	0.0009	05/29/03	21:12
226235	Ag3280	0.05	U	mg/L	0.05			0.00063	0.005	10	0.0063	05/29/03	21:16
226235	Al3082	0.5	U	mg/L	0.5			0.01097	0.05	10	0.1097	05/29/03	21:16
226235	As1890	0.05	U	mg/L	0.05			0.00034	0.005	10	0.0034	05/29/03	21:16
226235	B_2496	0.25	U	mg/L	0.25			-0.00256	0.025	10	-0.0256	05/29/03	21:16
226235	Ba4934	0.500		mg/L	0.05			0.04995	0.005	10	0.4995	05/29/03	21:16
226235	Be3130	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	21:16
226235	Bi2230	0.15	U	mg/L	0.15			0.00291	0.015	10	0.0291	05/29/03	21:16
226235	Ca3179	510		mg/L	1.5			50.97178	0.15	10	509.7178	05/29/03	21:16
226235	Cd2265	0.05	U	mg/L	0.05			0.00037	0.005	10	0.0037	05/29/03	21:16
226235	Co2286	0.05	U	mg/L	0.05			0.00220	0.005	10	0.022	05/29/03	21:16
226235	Cr2677	0.05	U	mg/L	0.05			-0.00046	0.005	10	-0.0046	05/29/03	21:16
226235	Cu3247	0.05	U	mg/L	0.05			0.00131	0.005	10	0.0131	05/29/03	21:16
226235	Fe2714	0.6	U	mg/L	0.6			0.02132	0.06	10	0.2132	05/29/03	21:16
226235	K_7664	1	U	mg/L	1			0.04586	0.1	10	0.4586	05/29/03	21:16
226235	La3988	0.05	U	mg/L	0.05			0.00107	0.005	10	0.0107	05/29/03	21:16
226235	Li6707	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	21:16
226235	Mg2790	0.5	U	mg/L	0.5			0.00552	0.05	10	0.0552	05/29/03	21:16
226235	Mn2576	0.05	U	mg/L	0.05			0.00193	0.005	10	0.0193	05/29/03	21:16
226235	Mo2020	0.05	U	mg/L	0.05			-0.00163	0.005	10	-0.0163	05/29/03	21:16
226235	Na5889	1	U	mg/L	1			0.01742	0.1	10	0.1742	05/29/03	21:16
226235	Ni2316	0.05	U	mg/L	0.05			-0.00005	0.005	10	-0.0005	05/29/03	21:16
226235	P_1782	0.25	U	mg/L	0.25			-0.00472	0.025	10	-0.0472	05/29/03	21:16
226235	Pb220	0.05	U	mg/L	0.05			0.00047	0.005	10	0.0047	05/29/03	21:16
226235	Pd3404	0.1	U	mg/L	0.1			0.00439	0.01	10	0.0439	05/29/03	21:16
226235	S_1820	0.25	U	mg/L	0.25			0.00668	0.025	10	0.0668	05/29/03	21:16
226235	Sb2068	0.1	U	mg/L	0.1			-0.00084	0.01	10	-0.0084	05/29/03	21:16
226235	Se196	0.05	U	mg/L	0.05			-0.00182	0.005	10	-0.0182	05/29/03	21:16
226235	Si2881	40.9		mg/L	0.25			4.09472	0.025	10	40.9472	05/29/03	21:16
226235	Sn1899	0.05	U	mg/L	0.05			0.00039	0.005	10	0.0039	05/29/03	21:16
226235	Sr4215	0.336		mg/L	0.05			0.03356	0.005	10	0.3356	05/29/03	21:16

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to#030520-13
06002.01.071

system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226235	Th2837	0.1	U	mg/L	0.1			0.00043	0.01	10	0.0043	05/29/03	21:16
226235	Ti3349	0.05	U	mg/L	0.05			-0.00031	0.005	10	-0.0031	05/29/03	21:16
226235	Tl1908	0.1	U	mg/L	0.1			-0.00111	0.01	10	-0.0111	05/29/03	21:16
226235	V_2924	0.05	U	mg/L	0.05			-0.00065	0.005	10	-0.0065	05/29/03	21:16
226235	W_2079	0.1	U	mg/L	0.1			0.00214	0.01	10	0.0214	05/29/03	21:16
226235	Y_3710	0.05	U	mg/L	0.05			-0.00003	0.005	10	-0.0003	05/29/03	21:16
226235	Zn2062	0.05	U	mg/L	0.05			0.00090	0.005	10	0.009	05/29/03	21:16
226235	Zr3496	0.05	U	mg/L	0.05			-0.00070	0.005	10	-0.007	05/29/03	21:16
226236	Ag3280	0.05	U	mg/L	0.05			0.00058	0.005	10	0.0058	05/29/03	21:21
226236	Al3082	0.5	U	mg/L	0.5			0.00684	0.05	10	0.0684	05/29/03	21:21
226236	As1890	0.05	U	mg/L	0.05			-0.00075	0.005	10	-0.0075	05/29/03	21:21
226236	B_2496	0.25	U	mg/L	0.25			-0.00326	0.025	10	-0.0326	05/29/03	21:21
226236	Ba4934	0.344		mg/L	0.05			0.03436	0.005	10	0.3436	05/29/03	21:21
226236	Be3130	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	21:21
226236	Bi2230	0.15	U	mg/L	0.15			0.00292	0.015	10	0.0292	05/29/03	21:21
226236	Ca3179	393		mg/L	1.5			39.30812	0.15	10	393.0812	05/29/03	21:21
226236	Cd2265	0.05	U	mg/L	0.05			0.00016	0.005	10	0.0016	05/29/03	21:21
226236	Co2286	0.05	U	mg/L	0.05			0.00059	0.005	10	0.0059	05/29/03	21:21
226236	Cr2677	0.05	U	mg/L	0.05			-0.00013	0.005	10	-0.0013	05/29/03	21:21
226236	Cu3247	0.05	U	mg/L	0.05			0.00073	0.005	10	0.0073	05/29/03	21:21
226236	Fe2714	0.6	U	mg/L	0.6			0.01944	0.06	10	0.1944	05/29/03	21:21
226236	K_7664	1	U	mg/L	1			0.03882	0.1	10	0.3882	05/29/03	21:21
226236	La3988	0.05	U	mg/L	0.05			0.00184	0.005	10	0.0184	05/29/03	21:21
226236	Li6707	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	21:21
226236	Mg2790	0.5	U	mg/L	0.5			0.00945	0.05	10	0.0945	05/29/03	21:21
226236	Mn2576	0.05	U	mg/L	0.05			0.00083	0.005	10	0.0083	05/29/03	21:21
226236	Mo2020	0.05	U	mg/L	0.05			-0.00152	0.005	10	-0.0152	05/29/03	21:21
226236	Na5889	1	U	mg/L	1			0.01052	0.1	10	0.1052	05/29/03	21:21
226236	Ni2316	0.05	U	mg/L	0.05			0.00085	0.005	10	0.0085	05/29/03	21:21
226236	P_1782	0.25	U	mg/L	0.25			0.00082	0.025	10	0.0082	05/29/03	21:21
226236	Pb220	0.05	U	mg/L	0.05			0.00104	0.005	10	0.0104	05/29/03	21:21
226236	Pd3404	0.1	U	mg/L	0.1			0.00334	0.01	10	0.0334	05/29/03	21:21
226236	S_1820	0.25	U	mg/L	0.25			0.00455	0.025	10	0.0455	05/29/03	21:21
226236	Sb2068	0.1	U	mg/L	0.1			0.00140	0.01	10	0.014	05/29/03	21:21
226236	Se196	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	21:21
226236	Si2881	30.9		mg/L	0.25			3.08821	0.025	10	30.8821	05/29/03	21:21
226236	Sn1899	0.05	U	mg/L	0.05			-0.00116	0.005	10	-0.0116	05/29/03	21:21
226236	Sr4215	0.269		mg/L	0.05			0.02692	0.005	10	0.2692	05/29/03	21:21
226236	Th2837	0.1	U	mg/L	0.1			0.00046	0.01	10	0.0046	05/29/03	21:21
226236	Ti3349	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	21:21

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226236	Tl1908	0.1	U	mg/L	0.1			0.00064	0.01	10	0.0064	05/29/03	21:21
226236	V_2924	0.05	U	mg/L	0.05			0.00026	0.005	10	0.0026	05/29/03	21:21
226236	W_2079	0.1	U	mg/L	0.1			-0.00131	0.01	10	-0.0131	05/29/03	21:21
226236	Y_3710	0.05	U	mg/L	0.05			-0.00009	0.005	10	-0.0009	05/29/03	21:21
226236	Zn2062	0.05	U	mg/L	0.05			0.00107	0.005	10	0.0107	05/29/03	21:21
226236	Zr3496	0.05	U	mg/L	0.05			0.00008	0.005	10	0.0008	05/29/03	21:21
226237	Ag3280	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	21:26
226237	Al3082	0.5	U	mg/L	0.5			0.00410	0.05	10	0.041	05/29/03	21:26
226237	As1890	0.05	U	mg/L	0.05			0.00053	0.005	10	0.0053	05/29/03	21:26
226237	B_2496	0.25	U	mg/L	0.25			-0.00422	0.025	10	-0.0422	05/29/03	21:26
226237	Ba4934	0.404		mg/L	0.05			0.04041	0.005	10	0.4041	05/29/03	21:26
226237	Be3130	0.05	U	mg/L	0.05			0.00001	0.005	10	0.0001	05/29/03	21:26
226237	Bi2230	0.15	U	mg/L	0.15			0.00200	0.015	10	0.02	05/29/03	21:26
226237	Ca3179	410		mg/L	1.5			40.96318	0.15	10	409.6318	05/29/03	21:26
226237	Cd2265	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	21:26
226237	Co2286	0.05	U	mg/L	0.05			0.00400	0.005	10	0.04	05/29/03	21:26
226237	Cr2677	0.05	U	mg/L	0.05			0.00061	0.005	10	0.0061	05/29/03	21:26
226237	Cu3247	0.05	U	mg/L	0.05			0.00151	0.005	10	0.0151	05/29/03	21:26
226237	Fe2714	0.6	U	mg/L	0.6			-0.00017	0.06	10	-0.0017	05/29/03	21:26
226237	K_7664	1	U	mg/L	1			0.02414	0.1	10	0.2414	05/29/03	21:26
226237	La3988	0.05	U	mg/L	0.05			0.00100	0.005	10	0.01	05/29/03	21:26
226237	Li6707	0.05	U	mg/L	0.05			-0.00004	0.005	10	-0.0004	05/29/03	21:26
226237	Mg2790	0.5	U	mg/L	0.5			0.00746	0.05	10	0.0746	05/29/03	21:26
226237	Mn2576	0.05	U	mg/L	0.05			0.00071	0.005	10	0.0071	05/29/03	21:26
226237	Mo2020	0.05	U	mg/L	0.05			-0.00218	0.005	10	-0.0218	05/29/03	21:26
226237	Na5889	1	U	mg/L	1			0.00663	0.1	10	0.0663	05/29/03	21:26
226237	Ni2316	0.05	U	mg/L	0.05			0.00002	0.005	10	0.0002	05/29/03	21:26
226237	P_1782	0.25	U	mg/L	0.25			0.00575	0.025	10	0.0575	05/29/03	21:26
226237	Pb220	0.05	U	mg/L	0.05			0.00050	0.005	10	0.005	05/29/03	21:26
226237	Pd3404	0.1	U	mg/L	0.1			0.00073	0.01	10	0.0073	05/29/03	21:26
226237	S_1820	0.25	U	mg/L	0.25			0.00509	0.025	10	0.0509	05/29/03	21:26
226237	Sb2068	0.1	U	mg/L	0.1			0.00093	0.01	10	0.0093	05/29/03	21:26
226237	Se196	0.05	U	mg/L	0.05			-0.00190	0.005	10	-0.019	05/29/03	21:26
226237	Si2881	32.2		mg/L	0.25			3.21965	0.025	10	32.1965	05/29/03	21:26
226237	Sn1899	0.05	U	mg/L	0.05			-0.00010	0.005	10	-0.001	05/29/03	21:26
226237	Sr4215	0.268		mg/L	0.05			0.02679	0.005	10	0.2679	05/29/03	21:26
226237	Th2837	0.1	U	mg/L	0.1			-0.00071	0.01	10	-0.0071	05/29/03	21:26
226237	Ti3349	0.05	U	mg/L	0.05			-0.00006	0.005	10	-0.0006	05/29/03	21:26
226237	Tl1908	0.1	U	mg/L	0.1			-0.00012	0.01	10	-0.0012	05/29/03	21:26
226237	V_2924	0.05	U	mg/L	0.05			0.00017	0.005	10	0.0017	05/29/03	21:26

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226237	W_2079	0.1	U	mg/L	0.1			0.00003	0.01	10	0.0003	05/29/03	21:26
226237	Y_3710	0.05	U	mg/L	0.05			-0.00005	0.005	10	-0.0005	05/29/03	21:26
226237	Zn2062	0.05	U	mg/L	0.05			0.00052	0.005	10	0.0052	05/29/03	21:26
226237	Zr3496	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	21:26
226238	Ag3280	0.05	U	mg/L	0.05			0.00088	0.005	10	0.0088	05/29/03	21:45
226238	Al3082	0.5	U	mg/L	0.5			0.00857	0.05	10	0.0857	05/29/03	21:45
226238	As1890	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	21:45
226238	B_2496	0.25	U	mg/L	0.25			-0.00049	0.025	10	-0.0049	05/29/03	21:45
226238	Ba4934	0.422		mg/L	0.05			0.04224	0.005	10	0.4224	05/29/03	21:45
226238	Be3130	0.05	U	mg/L	0.05			0.00002	0.005	10	0.0002	05/29/03	21:45
226238	Bi2230	0.15	U	mg/L	0.15			0.00177	0.015	10	0.0177	05/29/03	21:45
226238	Ca3179	416		mg/L	1.5			41.58679	0.15	10	415.8679	05/29/03	21:45
226238	Cd2265	0.05	U	mg/L	0.05			0.00048	0.005	10	0.0048	05/29/03	21:45
226238	Co2286	0.05	U	mg/L	0.05			0.00282	0.005	10	0.0282	05/29/03	21:45
226238	Cr2677	0.05	U	mg/L	0.05			-0.00057	0.005	10	-0.0057	05/29/03	21:45
226238	Cu3247	0.05	U	mg/L	0.05			0.00093	0.005	10	0.0093	05/29/03	21:45
226238	Fe2714	0.6	U	mg/L	0.6			0.01946	0.06	10	0.1946	05/29/03	21:45
226238	K_7664	1	U	mg/L	1			0.06729	0.1	10	0.6729	05/29/03	21:45
226238	La3988	0.05	U	mg/L	0.05			0.00102	0.005	10	0.0102	05/29/03	21:45
226238	Li6707	0.05	U	mg/L	0.05			0.00009	0.005	10	0.0009	05/29/03	21:45
226238	Mg2790	0.5	U	mg/L	0.5			0.01121	0.05	10	0.1121	05/29/03	21:45
226238	Mn2576	0.05	U	mg/L	0.05			0.00088	0.005	10	0.0088	05/29/03	21:45
226238	Mo2020	0.05	U	mg/L	0.05			-0.00042	0.005	10	-0.0042	05/29/03	21:45
226238	Na5889	1	U	mg/L	1			0.02831	0.1	10	0.2831	05/29/03	21:45
226238	Ni2316	0.05	U	mg/L	0.05			-0.00118	0.005	10	-0.0118	05/29/03	21:45
226238	P_1782	0.25	U	mg/L	0.25			-0.00171	0.025	10	-0.0171	05/29/03	21:45
226238	Pb220	0.05	U	mg/L	0.05			0.00034	0.005	10	0.0034	05/29/03	21:45
226238	Pd3404	0.1	U	mg/L	0.1			0.00458	0.01	10	0.0458	05/29/03	21:45
226238	S_1820	0.25	U	mg/L	0.25			0.00620	0.025	10	0.062	05/29/03	21:45
226238	Sb2068	0.1	U	mg/L	0.1			-0.00061	0.01	10	-0.0061	05/29/03	21:45
226238	Se196	0.05	U	mg/L	0.05			-0.00113	0.005	10	-0.0113	05/29/03	21:45
226238	Si2881	33.2		mg/L	0.25			3.31676	0.025	10	33.1676	05/29/03	21:45
226238	Sn1899	0.05	U	mg/L	0.05			0.00066	0.005	10	0.0066	05/29/03	21:45
226238	Sr4215	0.277		mg/L	0.05			0.02774	0.005	10	0.2774	05/29/03	21:45
226238	Th2837	0.1	U	mg/L	0.1			-0.00079	0.01	10	-0.0079	05/29/03	21:45
226238	Ti3349	0.05	U	mg/L	0.05			-0.00015	0.005	10	-0.0015	05/29/03	21:45
226238	Tl1908	0.1	U	mg/L	0.1			0.00101	0.01	10	0.0101	05/29/03	21:45
226238	V_2924	0.05	U	mg/L	0.05			-0.00027	0.005	10	-0.0027	05/29/03	21:45
226238	W_2079	0.1	U	mg/L	0.1			0.00198	0.01	10	0.0198	05/29/03	21:45
226238	Y_3710	0.05	U	mg/L	0.05			-0.00011	0.005	10	-0.0011	05/29/03	21:45

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226238	Zn2062	0.05	U	mg/L	0.05			0.00064	0.005	10	0.0064	05/29/03	21:45
226238	Zr3496	0.05	U	mg/L	0.05			-0.00027	0.005	10	-0.0027	05/29/03	21:45
226239	Ag3280	0.05	U	mg/L	0.05			0.00074	0.005	10	0.0074	05/29/03	21:50
226239	Al3082	0.5	U	mg/L	0.5			0.00929	0.05	10	0.0929	05/29/03	21:50
226239	As1890	0.05	U	mg/L	0.05			-0.00158	0.005	10	-0.0158	05/29/03	21:50
226239	B_2496	0.25	U	mg/L	0.25			-0.00203	0.025	10	-0.0203	05/29/03	21:50
226239	Ba4934	0.427		mg/L	0.05			0.04269	0.005	10	0.4269	05/29/03	21:50
226239	Be3130	0.05	U	mg/L	0.05			0.00002	0.005	10	0.0002	05/29/03	21:50
226239	Bi2230	0.15	U	mg/L	0.15			0.00123	0.015	10	0.0123	05/29/03	21:50
226239	Ca3179	425		mg/L	1.5			42.45650	0.15	10	424.565	05/29/03	21:50
226239	Cd2265	0.05	U	mg/L	0.05			0.00029	0.005	10	0.0029	05/29/03	21:50
226239	Co2286	0.05	U	mg/L	0.05			0.00237	0.005	10	0.0237	05/29/03	21:50
226239	Cr2677	0.05	U	mg/L	0.05			-0.00060	0.005	10	-0.006	05/29/03	21:50
226239	Cu3247	0.05	U	mg/L	0.05			0.00011	0.005	10	0.0011	05/29/03	21:50
226239	Fe2714	0.6	U	mg/L	0.6			0.01974	0.06	10	0.1974	05/29/03	21:50
226239	K_7664	1	U	mg/L	1			0.04262	0.1	10	0.4262	05/29/03	21:50
226239	La3988	0.05	U	mg/L	0.05			0.00134	0.005	10	0.0134	05/29/03	21:50
226239	Li6707	0.05	U	mg/L	0.05			0.00007	0.005	10	0.0007	05/29/03	21:50
226239	Mg2790	0.5	U	mg/L	0.5			0.01027	0.05	10	0.1027	05/29/03	21:50
226239	Mn2576	0.05	U	mg/L	0.05			0.00094	0.005	10	0.0094	05/29/03	21:50
226239	Mo2020	0.05	U	mg/L	0.05			-0.00101	0.005	10	-0.0101	05/29/03	21:50
226239	Na5889	1	U	mg/L	1			0.03103	0.1	10	0.3103	05/29/03	21:50
226239	Ni2316	0.05	U	mg/L	0.05			-0.00071	0.005	10	-0.0071	05/29/03	21:50
226239	P_1782	0.25	U	mg/L	0.25			-0.00166	0.025	10	-0.0166	05/29/03	21:50
226239	Pb220	0.05	U	mg/L	0.05			-0.00019	0.005	10	-0.0019	05/29/03	21:50
226239	Pd3404	0.1	U	mg/L	0.1			0.00503	0.01	10	0.0503	05/29/03	21:50
226239	S_1820	0.25	U	mg/L	0.25			0.01295	0.025	10	0.1295	05/29/03	21:50
226239	Sb2068	0.1	U	mg/L	0.1			-0.00033	0.01	10	-0.0033	05/29/03	21:50
226239	Se196	0.05	U	mg/L	0.05			-0.00155	0.005	10	-0.0155	05/29/03	21:50
226239	Si2881	33.9		mg/L	0.25			3.39434	0.025	10	33.9434	05/29/03	21:50
226239	Sn1899	0.05	U	mg/L	0.05			0.00162	0.005	10	0.0162	05/29/03	21:50
226239	Sr4215	0.282		mg/L	0.05			0.02821	0.005	10	0.2821	05/29/03	21:50
226239	Th2837	0.1	U	mg/L	0.1			-0.00239	0.01	10	-0.0239	05/29/03	21:50
226239	Ti3349	0.05	U	mg/L	0.05			-0.00019	0.005	10	-0.0019	05/29/03	21:50
226239	Tl1908	0.1	U	mg/L	0.1			-0.00098	0.01	10	-0.0098	05/29/03	21:50
226239	V_2924	0.05	U	mg/L	0.05			-0.00027	0.005	10	-0.0027	05/29/03	21:50
226239	W_2079	0.1	U	mg/L	0.1			0.00254	0.01	10	0.0254	05/29/03	21:50
226239	Y_3710	0.05	U	mg/L	0.05			-0.00015	0.005	10	-0.0015	05/29/03	21:50
226239	Zn2062	0.05	U	mg/L	0.05			0.00078	0.005	10	0.0078	05/29/03	21:50
226239	Zr3496	0.05	U	mg/L	0.05			-0.00004	0.005	10	-0.0004	05/29/03	21:50

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226240	Ag3280	0.05	U	mg/L	0.05				0.00036	0.005	10	0.0036	05/29/03	21:55
226240	Al3082	0.5	U	mg/L	0.5				0.01107	0.05	10	0.1107	05/29/03	21:55
226240	As1890	0.05	U	mg/L	0.05				0.00070	0.005	10	0.007	05/29/03	21:55
226240	B_2496	0.25	U	mg/L	0.25				-0.00167	0.025	10	-0.0167	05/29/03	21:55
226240	Ba4934	0.441		mg/L	0.05				0.04411	0.005	10	0.4411	05/29/03	21:55
226240	Be3130	0.05	U	mg/L	0.05				0.00004	0.005	10	0.0004	05/29/03	21:55
226240	Bi2230	0.15	U	mg/L	0.15				0.00137	0.015	10	0.0137	05/29/03	21:55
226240	Ca3179	435		mg/L	1.5				43.47604	0.15	10	434.7604	05/29/03	21:55
226240	Cd2265	0.05	U	mg/L	0.05				0.00021	0.005	10	0.0021	05/29/03	21:55
226240	Co2286	0.05	U	mg/L	0.05				0.00263	0.005	10	0.0263	05/29/03	21:55
226240	Cr2677	0.05	U	mg/L	0.05				0.00094	0.005	10	0.0094	05/29/03	21:55
226240	Cu3247	0.05	U	mg/L	0.05				0.00212	0.005	10	0.0212	05/29/03	21:55
226240	Fe2714	0.6	U	mg/L	0.6				0.00331	0.06	10	0.0331	05/29/03	21:55
226240	K_7664	1	U	mg/L	1				0.02358	0.1	10	0.2358	05/29/03	21:55
226240	La3988	0.05	U	mg/L	0.05				0.00106	0.005	10	0.0106	05/29/03	21:55
226240	Li6707	0.05	U	mg/L	0.05				0.00000	0.005	10	0	05/29/03	21:55
226240	Mg2790	0.5	U	mg/L	0.5				0.00708	0.05	10	0.0708	05/29/03	21:55
226240	Mn2576	0.05	U	mg/L	0.05				0.00158	0.005	10	0.0158	05/29/03	21:55
226240	Mo2020	0.05	U	mg/L	0.05				-0.00142	0.005	10	-0.0142	05/29/03	21:55
226240	Na5889	1	U	mg/L	1				0.02828	0.1	10	0.2828	05/29/03	21:55
226240	Ni2316	0.05	U	mg/L	0.05				0.00122	0.005	10	0.0122	05/29/03	21:55
226240	P_1782	0.25	U	mg/L	0.25				0.00378	0.025	10	0.0378	05/29/03	21:55
226240	Pb220	0.05	U	mg/L	0.05				-0.00027	0.005	10	-0.0027	05/29/03	21:55
226240	Pd3404	0.1	U	mg/L	0.1				0.00105	0.01	10	0.0105	05/29/03	21:55
226240	S_1820	0.25	U	mg/L	0.25				0.00463	0.025	10	0.0463	05/29/03	21:55
226240	Sb2068	0.1	U	mg/L	0.1				0.00162	0.01	10	0.0162	05/29/03	21:55
226240	Se196	0.05	U	mg/L	0.05				-0.00175	0.005	10	-0.0175	05/29/03	21:55
226240	Si2881	34.6		mg/L	0.25				3.46114	0.025	10	34.6114	05/29/03	21:55
226240	Sn1899	0.05	U	mg/L	0.05				0.00015	0.005	10	0.0015	05/29/03	21:55
226240	Sr4215	0.290		mg/L	0.05				0.02902	0.005	10	0.2902	05/29/03	21:55
226240	Th2837	0.1	U	mg/L	0.1				0.00113	0.01	10	0.0113	05/29/03	21:55
226240	Ti3349	0.05	U	mg/L	0.05				0.00001	0.005	10	0.0001	05/29/03	21:55
226240	Tl1908	0.1	U	mg/L	0.1				-0.00008	0.01	10	-0.0008	05/29/03	21:55
226240	V_2924	0.05	U	mg/L	0.05				0.00039	0.005	10	0.0039	05/29/03	21:55
226240	W_2079	0.1	U	mg/L	0.1				0.00043	0.01	10	0.0043	05/29/03	21:55
226240	Y_3710	0.05	U	mg/L	0.05				0.00003	0.005	10	0.0003	05/29/03	21:55
226240	Zn2062	0.05	U	mg/L	0.05				0.00139	0.005	10	0.0139	05/29/03	21:55
226240	Zr3496	0.05	U	mg/L	0.05				0.00049	0.005	10	0.0049	05/29/03	21:55
226241	Ag3280	0.05	U	mg/L	0.05				0.00164	0.005	10	0.0164	05/29/03	21:59
226241	Al3082	0.5	U	mg/L	0.5				0.01313	0.05	10	0.1313	05/29/03	21:59

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226241	As1890	0.05	U	mg/L	0.05			0.00072	0.005	10	0.0072	05/29/03	21:59
226241	B_2496	0.25	U	mg/L	0.25			-0.00308	0.025	10	-0.0308	05/29/03	21:59
226241	Ba4934	0.449		mg/L	0.05			0.04490	0.005	10	0.449	05/29/03	21:59
226241	Be3130	0.05	U	mg/L	0.05			0.00002	0.005	10	0.0002	05/29/03	21:59
226241	Bi2230	0.15	U	mg/L	0.15			0.01057	0.015	10	0.1057	05/29/03	21:59
226241	Ca3179	450		mg/L	1.5			44.98395	0.15	10	449.8395	05/29/03	21:59
226241	Cd2265	0.05	U	mg/L	0.05			0.00046	0.005	10	0.0046	05/29/03	21:59
226241	Co2286	0.05	U	mg/L	0.05			0.00172	0.005	10	0.0172	05/29/03	21:59
226241	Cr2677	0.05	U	mg/L	0.05			0.00023	0.005	10	0.0023	05/29/03	21:59
226241	Cu3247	0.05	U	mg/L	0.05			0.00037	0.005	10	0.0037	05/29/03	21:59
226241	Fe2714	0.6	U	mg/L	0.6			0.04087	0.06	10	0.4087	05/29/03	21:59
226241	K_7664	1	U	mg/L	1			0.05002	0.1	10	0.5002	05/29/03	21:59
226241	La3988	0.05	U	mg/L	0.05			0.00227	0.005	10	0.0227	05/29/03	21:59
226241	Li6707	0.05	U	mg/L	0.05			0.00009	0.005	10	0.0009	05/29/03	21:59
226241	Mg2790	0.5	U	mg/L	0.5			0.02111	0.05	10	0.2111	05/29/03	21:59
226241	Mn2576	0.05	U	mg/L	0.05			0.00138	0.005	10	0.0138	05/29/03	21:59
226241	Mo2020	0.05	U	mg/L	0.05			-0.00204	0.005	10	-0.0204	05/29/03	21:59
226241	Na5889	1	U	mg/L	1			0.03261	0.1	10	0.3261	05/29/03	21:59
226241	Ni2316	0.05	U	mg/L	0.05			0.00037	0.005	10	0.0037	05/29/03	21:59
226241	P_1782	0.25	U	mg/L	0.25			-0.01156	0.025	10	-0.1156	05/29/03	21:59
226241	Pb220	0.05	U	mg/L	0.05			-0.00063	0.005	10	-0.0063	05/29/03	21:59
226241	Pd3404	0.1	U	mg/L	0.1			0.00870	0.01	10	0.087	05/29/03	21:59
226241	S_1820	0.25	U	mg/L	0.25			0.00571	0.025	10	0.0571	05/29/03	21:59
226241	Sb2068	0.1	U	mg/L	0.1			-0.00014	0.01	10	-0.0014	05/29/03	21:59
226241	Se196	0.05	U	mg/L	0.05			-0.00323	0.005	10	-0.0323	05/29/03	21:59
226241	Si2881	35.8		mg/L	0.25			3.57515	0.025	10	35.7515	05/29/03	21:59
226241	Sn1899	0.05	U	mg/L	0.05			0.00161	0.005	10	0.0161	05/29/03	21:59
226241	Sr4215	0.299		mg/L	0.05			0.02991	0.005	10	0.2991	05/29/03	21:59
226241	Th2837	0.1	U	mg/L	0.1			-0.00326	0.01	10	-0.0326	05/29/03	21:59
226241	Ti3349	0.05	U	mg/L	0.05			-0.00022	0.005	10	-0.0022	05/29/03	21:59
226241	Tl1908	0.1	U	mg/L	0.1			0.00078	0.01	10	0.0078	05/29/03	21:59
226241	V_2924	0.05	U	mg/L	0.05			-0.00021	0.005	10	-0.0021	05/29/03	21:59
226241	W_2079	0.1	U	mg/L	0.1			0.00254	0.01	10	0.0254	05/29/03	21:59
226241	Y_3710	0.05	U	mg/L	0.05			-0.00006	0.005	10	-0.0006	05/29/03	21:59
226241	Zn2062	0.05	U	mg/L	0.05			0.00163	0.005	10	0.0163	05/29/03	21:59
226241	Zr3496	0.05	U	mg/L	0.05			-0.00037	0.005	10	-0.0037	05/29/03	21:59
226242	Ag3280	0.05	U	mg/L	0.05			0.00034	0.005	10	0.0034	05/29/03	22:28
226242	Al3082	0.5	U	mg/L	0.5			0.01131	0.05	10	0.1131	05/29/03	22:28
226242	As1890	0.05	U	mg/L	0.05			-0.00140	0.005	10	-0.014	05/29/03	22:28
226242	B_2496	0.25	U	mg/L	0.25			-0.00093	0.025	10	-0.0093	05/29/03	22:28

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226242	Ba4934	0.469		mg/L	0.05			0.04688	0.005	10	0.4688	05/29/03	22:28
226242	Be3130	0.05	U	mg/L	0.05			0.00001	0.005	10	0.0001	05/29/03	22:28
226242	Bi2230	0.15	U	mg/L	0.15			0.00184	0.015	10	0.0184	05/29/03	22:28
226242	Ca3179	474		mg/L	1.5			47.36814	0.15	10	473.6814	05/29/03	22:28
226242	Cd2265	0.05	U	mg/L	0.05			0.00012	0.005	10	0.0012	05/29/03	22:28
226242	Co2286	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	22:28
226242	Cr2677	0.05	U	mg/L	0.05			0.00047	0.005	10	0.0047	05/29/03	22:28
226242	Cu3247	0.05	U	mg/L	0.05			0.00169	0.005	10	0.0169	05/29/03	22:28
226242	Fe2714	0.6	U	mg/L	0.6			0.00940	0.06	10	0.094	05/29/03	22:28
226242	K_7664	1	U	mg/L	1			0.03942	0.1	10	0.3942	05/29/03	22:28
226242	La3988	0.05	U	mg/L	0.05			0.00096	0.005	10	0.0096	05/29/03	22:28
226242	Li6707	0.05	U	mg/L	0.05			0.00011	0.005	10	0.0011	05/29/03	22:28
226242	Mg2790	0.5	U	mg/L	0.5			0.01124	0.05	10	0.1124	05/29/03	22:28
226242	Mn2576	0.05	U	mg/L	0.05			0.00140	0.005	10	0.014	05/29/03	22:28
226242	Mo2020	0.05	U	mg/L	0.05			-0.00149	0.005	10	-0.0149	05/29/03	22:28
226242	Na5889	1	U	mg/L	1			0.02796	0.1	10	0.2796	05/29/03	22:28
226242	Ni2316	0.05	U	mg/L	0.05			0.00120	0.005	10	0.012	05/29/03	22:28
226242	P_1782	0.25	U	mg/L	0.25			-0.00635	0.025	10	-0.0635	05/29/03	22:28
226242	Pb220	0.05	U	mg/L	0.05			-0.00067	0.005	10	-0.0067	05/29/03	22:28
226242	Pd3404	0.1	U	mg/L	0.1			0.00234	0.01	10	0.0234	05/29/03	22:28
226242	S_1820	0.25	U	mg/L	0.25			0.00481	0.025	10	0.0481	05/29/03	22:28
226242	Sb2068	0.1	U	mg/L	0.1			0.00312	0.01	10	0.0312	05/29/03	22:28
226242	Se196	0.05	U	mg/L	0.05			-0.00006	0.005	10	-0.0006	05/29/03	22:28
226242	Si2881	37.5		mg/L	0.25			3.75084	0.025	10	37.5084	05/29/03	22:28
226242	Sn1899	0.05	U	mg/L	0.05			-0.00087	0.005	10	-0.0087	05/29/03	22:28
226242	Sr4215	0.309		mg/L	0.05			0.03092	0.005	10	0.3092	05/29/03	22:28
226242	Th2837	0.1	U	mg/L	0.1			-0.00021	0.01	10	-0.0021	05/29/03	22:28
226242	Ti3349	0.05	U	mg/L	0.05			-0.00003	0.005	10	-0.0003	05/29/03	22:28
226242	Tl1908	0.1	U	mg/L	0.1			0.00024	0.01	10	0.0024	05/29/03	22:28
226242	V_2924	0.05	U	mg/L	0.05			0.00059	0.005	10	0.0059	05/29/03	22:28
226242	W_2079	0.1	U	mg/L	0.1			0.00100	0.01	10	0.01	05/29/03	22:28
226242	Y_3710	0.05	U	mg/L	0.05			0.00002	0.005	10	0.0002	05/29/03	22:28
226242	Zn2062	0.05	U	mg/L	0.05			0.00052	0.005	10	0.0052	05/29/03	22:28
226242	Zr3496	0.05	U	mg/L	0.05			-0.00015	0.005	10	-0.0015	05/29/03	22:28
226242d	Ag3280	0.05	U	mg/L	0.05			0.00014	0.005	10	0.0014	05/29/03	22:33
226242d	Al3082	0.5	U	mg/L	0.5			0.01124	0.05	10	0.1124	05/29/03	22:33
226242d	As1890	0.05	U	mg/L	0.05			-0.00152	0.005	10	-0.0152	05/29/03	22:33
226242d	B_2496	0.25	U	mg/L	0.25			-0.00133	0.025	10	-0.0133	05/29/03	22:33
226242d	Ba4934	0.468		mg/L	0.05			0.04684	0.005	10	0.4684	05/29/03	22:33
226242d	Be3130	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	22:33

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226242d	Bi2230	0.15	U	mg/L	0.15				0.00293	0.015	10	0.0293	05/29/03	22:33
226242d	Ca3179	480		mg/L	1.5				47.97748	0.15	10	479.7748	05/29/03	22:33
226242d	Cd2265	0.05	U	mg/L	0.05				0.00010	0.005	10	0.001	05/29/03	22:33
226242d	Co2286	0.05	U	mg/L	0.05				0.00064	0.005	10	0.0064	05/29/03	22:33
226242d	Cr2677	0.05	U	mg/L	0.05				0.00092	0.005	10	0.0092	05/29/03	22:33
226242d	Cu3247	0.05	U	mg/L	0.05				0.00123	0.005	10	0.0123	05/29/03	22:33
226242d	Fe2714	0.6	U	mg/L	0.6				0.02141	0.06	10	0.2141	05/29/03	22:33
226242d	K_7664	1	U	mg/L	1				0.03377	0.1	10	0.3377	05/29/03	22:33
226242d	La3988	0.05	U	mg/L	0.05				0.00048	0.005	10	0.0048	05/29/03	22:33
226242d	Li6707	0.05	U	mg/L	0.05				0.00007	0.005	10	0.0007	05/29/03	22:33
226242d	Mg2790	0.5	U	mg/L	0.5				0.00467	0.05	10	0.0467	05/29/03	22:33
226242d	Mn2576	0.05	U	mg/L	0.05				0.00179	0.005	10	0.0179	05/29/03	22:33
226242d	Mo2020	0.05	U	mg/L	0.05				-0.00211	0.005	10	-0.0211	05/29/03	22:33
226242d	Na5889	1	U	mg/L	1				0.00993	0.1	10	0.0993	05/29/03	22:33
226242d	Ni2316	0.05	U	mg/L	0.05				0.00043	0.005	10	0.0043	05/29/03	22:33
226242d	P_1782	0.25	U	mg/L	0.25				-0.00278	0.025	10	-0.0278	05/29/03	22:33
226242d	Pb220	0.05	U	mg/L	0.05				0.00024	0.005	10	0.0024	05/29/03	22:33
226242d	Pd3404	0.1	U	mg/L	0.1				0.00270	0.01	10	0.027	05/29/03	22:33
226242d	S_1820	0.25	U	mg/L	0.25				0.00817	0.025	10	0.0817	05/29/03	22:33
226242d	Sb2068	0.1	U	mg/L	0.1				0.00005	0.01	10	0.0005	05/29/03	22:33
226242d	Se196	0.05	U	mg/L	0.05				-0.00255	0.005	10	-0.0255	05/29/03	22:33
226242d	Si2881	37.6		mg/L	0.25				3.76435	0.025	10	37.6435	05/29/03	22:33
226242d	Sn1899	0.05	U	mg/L	0.05				-0.00103	0.005	10	-0.0103	05/29/03	22:33
226242d	Sr4215	0.312		mg/L	0.05				0.03123	0.005	10	0.3123	05/29/03	22:33
226242d	Th2837	0.1	U	mg/L	0.1				0.00045	0.01	10	0.0045	05/29/03	22:33
226242d	Ti3349	0.05	U	mg/L	0.05				-0.00003	0.005	10	-0.0003	05/29/03	22:33
226242d	Tl1908	0.1	U	mg/L	0.1				-0.00261	0.01	10	-0.0261	05/29/03	22:33
226242d	V_2924	0.05	U	mg/L	0.05				-0.00004	0.005	10	-0.0004	05/29/03	22:33
226242d	W_2079	0.1	U	mg/L	0.1				-0.00036	0.01	10	-0.0036	05/29/03	22:33
226242d	Y_3710	0.05	U	mg/L	0.05				0.00001	0.005	10	0.0001	05/29/03	22:33
226242d	Zn2062	0.05	U	mg/L	0.05				0.00059	0.005	10	0.0059	05/29/03	22:33
226242d	Zr3496	0.05	U	mg/L	0.05				-0.00041	0.005	10	-0.0041	05/29/03	22:33
226243	Ag3280	0.05	U	mg/L	0.05				-0.00023	0.005	10	-0.0023	05/29/03	22:38
226243	Al3082	0.5	U	mg/L	0.5				0.00590	0.05	10	0.059	05/29/03	22:38
226243	As1890	0.05	U	mg/L	0.05				-0.00050	0.005	10	-0.005	05/29/03	22:38
226243	B_2496	0.25	U	mg/L	0.25				-0.00135	0.025	10	-0.0135	05/29/03	22:38
226243	Ba4934	0.483		mg/L	0.05				0.04832	0.005	10	0.4832	05/29/03	22:38
226243	Be3130	0.05	U	mg/L	0.05				0.00000	0.005	10	0	05/29/03	22:38
226243	Bi2230	0.15	U	mg/L	0.15				-0.00101	0.015	10	-0.0101	05/29/03	22:38
226243	Ca3179	488		mg/L	1.5				48.75896	0.15	10	487.5896	05/29/03	22:38

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226243	Cd2265	0.05	U	mg/L	0.05			0.00011	0.005	10	0.0011	05/29/03	22:38
226243	Co2286	0.05	U	mg/L	0.05			0.00059	0.005	10	0.0059	05/29/03	22:38
226243	Cr2677	0.05	U	mg/L	0.05			0.00109	0.005	10	0.0109	05/29/03	22:38
226243	Cu3247	0.05	U	mg/L	0.05			0.00210	0.005	10	0.021	05/29/03	22:38
226243	Fe2714	0.6	U	mg/L	0.6			0.01459	0.06	10	0.1459	05/29/03	22:38
226243	K_7664	1	U	mg/L	1			0.01807	0.1	10	0.1807	05/29/03	22:38
226243	La3988	0.05	U	mg/L	0.05			-0.00012	0.005	10	-0.0012	05/29/03	22:38
226243	Li6707	0.05	U	mg/L	0.05			0.00002	0.005	10	0.0002	05/29/03	22:38
226243	Mg2790	0.5	U	mg/L	0.5			0.00535	0.05	10	0.0535	05/29/03	22:38
226243	Mn2576	0.05	U	mg/L	0.05			0.00162	0.005	10	0.0162	05/29/03	22:38
226243	Mo2020	0.05	U	mg/L	0.05			-0.00152	0.005	10	-0.0152	05/29/03	22:38
226243	Na5889	1	U	mg/L	1			0.02704	0.1	10	0.2704	05/29/03	22:38
226243	Ni2316	0.05	U	mg/L	0.05			0.00098	0.005	10	0.0098	05/29/03	22:38
226243	P_1782	0.25	U	mg/L	0.25			-0.00629	0.025	10	-0.0629	05/29/03	22:38
226243	Pb220	0.05	U	mg/L	0.05			-0.00017	0.005	10	-0.0017	05/29/03	22:38
226243	Pd3404	0.1	U	mg/L	0.1			0.00160	0.01	10	0.016	05/29/03	22:38
226243	S_1820	0.25	U	mg/L	0.25			0.01493	0.025	10	0.1493	05/29/03	22:38
226243	Sb2068	0.1	U	mg/L	0.1			0.00615	0.01	10	0.0615	05/29/03	22:38
226243	Se196	0.05	U	mg/L	0.05			-0.00093	0.005	10	-0.0093	05/29/03	22:38
226243	Si2881	38.8		mg/L	0.25			3.87544	0.025	10	38.7544	05/29/03	22:38
226243	Sn1899	0.05	U	mg/L	0.05			-0.00133	0.005	10	-0.0133	05/29/03	22:38
226243	Sr4215	0.321		mg/L	0.05			0.03207	0.005	10	0.3207	05/29/03	22:38
226243	Th2837	0.1	U	mg/L	0.1			0.00436	0.01	10	0.0436	05/29/03	22:38
226243	Ti3349	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	22:38
226243	Tl1908	0.1	U	mg/L	0.1			-0.00001	0.01	10	-0.0001	05/29/03	22:38
226243	V_2924	0.05	U	mg/L	0.05			0.00083	0.005	10	0.0083	05/29/03	22:38
226243	W_2079	0.1	U	mg/L	0.1			0.00140	0.01	10	0.014	05/29/03	22:38
226243	Y_3710	0.05	U	mg/L	0.05			0.00023	0.005	10	0.0023	05/29/03	22:38
226243	Zn2062	0.05	U	mg/L	0.05			0.00223	0.005	10	0.0223	05/29/03	22:38
226243	Zr3496	0.05	U	mg/L	0.05			0.00039	0.005	10	0.0039	05/29/03	22:38
226243s	Ag3280	0.463		mg/L	0.05	0.5	92.6%	0.04632	0.005	10	0.4632	05/29/03	22:42
226243s	Al3082	19.8		mg/L	0.5	20	98.9%	1.97757	0.05	10	19.7757	05/29/03	22:42
226243s	As1890	20.5		mg/L	0.05	20	102.6%	2.05165	0.005	10	20.5165	05/29/03	22:42
226243s	B_2496	0.25	U	mg/L	0.25			-0.00293	0.025	10	-0.0293	05/29/03	22:42
226243s	Ba4934	20.9		mg/L	0.05	20	102.0%	2.08736	0.005	10	20.8736	05/29/03	22:42
226243s	Be3130	0.495		mg/L	0.05	0.5	99.1%	0.04953	0.005	10	0.4953	05/29/03	22:42
226243s	Bi2230	0.15	U	mg/L	0.15			0.00222	0.015	10	0.0222	05/29/03	22:42
226243s	Ca3179	691		mg/L	1.5	200	101.3%	69.05394	0.15	10	690.5394	05/29/03	22:42
226243s	Cd2265	0.524		mg/L	0.05	0.5	104.7%	0.05237	0.005	10	0.5237	05/29/03	22:42
226243s	Co2286	5.14		mg/L	0.05	5	102.8%	0.51406	0.005	10	5.1406	05/29/03	22:42

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226243s	Cr2677	1.95		mg/L	0.05	2	97.7%	0.19548	0.005	10	1.9548	05/29/03	22:42
226243s	Cu3247	2.53		mg/L	0.05	2.5	101.2%	0.25297	0.005	10	2.5297	05/29/03	22:42
226243s	Fe2714	11.2		mg/L	0.6	10	112.3%	1.12294	0.06	10	11.2294	05/29/03	22:42
226243s	K_7664	176		mg/L	1	200	88.2%	17.63986	0.1	10	176.3986	05/29/03	22:42
226243s	La3988	0.05	U	mg/L	0.05			0.00133	0.005	10	0.0133	05/29/03	22:42
226243s	Li6707	0.05	U	mg/L	0.05			0.00020	0.005	10	0.002	05/29/03	22:42
226243s	Mg2790	204		mg/L	0.5	200	102.2%	20.44226	0.05	10	204.4226	05/29/03	22:42
226243s	Mn2576	5.16		mg/L	0.05	5	103.3%	0.51642	0.005	10	5.1642	05/29/03	22:42
226243s	Mo2020	0.05	U	mg/L	0.05			-0.00176	0.005	10	-0.0176	05/29/03	22:42
226243s	Na3302	186		mg/L	1	200	93.0%	18.60150	0.1	10	186.015	05/29/03	22:42
226243s	Ni2316	4.91		mg/L	0.05	5	98.1%	0.49051	0.005	10	4.9051	05/29/03	22:42
226243s	P_1782	0.25	U	mg/L	0.25			0.00214	0.025	10	0.0214	05/29/03	22:42
226243s	Pb220	5.22		mg/L	0.05	5	104.5%	0.52244	0.005	10	5.2244	05/29/03	22:42
226243s	Pd3404	0.1	U	mg/L	0.1			0.00670	0.01	10	0.067	05/29/03	22:42
226243s	S_1820	0.25	U	mg/L	0.25			0.01650	0.025	10	0.165	05/29/03	22:42
226243s	Sb2068	5.00		mg/L	0.1	5	100.0%	0.49981	0.01	10	4.9981	05/29/03	22:42
226243s	Se196	21.0		mg/L	0.05	20	104.8%	2.09641	0.005	10	20.9641	05/29/03	22:42
226243s	Si2881	81.1		mg/L	0.25	40	105.9%	8.11418	0.025	10	81.1418	05/29/03	22:42
226243s	Sn1899	0.05	U	mg/L	0.05			0.00038	0.005	10	0.0038	05/29/03	22:42
226243s	Sr4215	0.322		mg/L	0.05			0.03220	0.005	10	0.322	05/29/03	22:42
226243s	Th2837	0.1	U	mg/L	0.1			-0.01324	0.01	10	-0.1324	05/29/03	22:42
226243s	Ti3349	0.05	U	mg/L	0.05			-0.00008	0.005	10	-0.0008	05/29/03	22:42
226243s	Tl1908	21.2		mg/L	0.1	20	105.9%	2.11812	0.01	10	21.1812	05/29/03	22:42
226243s	V_2924	5.14		mg/L	0.05	5	102.8%	0.51385	0.005	10	5.1385	05/29/03	22:42
226243s	W_2079	0.1	U	mg/L	0.1			0.00350	0.01	10	0.035	05/29/03	22:42
226243s	Y_3710	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	22:42
226243s	Zn2062	5.23		mg/L	0.05	5	104.7%	0.52335	0.005	10	5.2335	05/29/03	22:42
226243s	Zr3496	0.05	U	mg/L	0.05			-0.00015	0.005	10	-0.0015	05/29/03	22:42
226244	Ag3280	0.05	U	mg/L	0.05			0.00030	0.005	10	0.003	05/29/03	22:47
226244	Al3082	0.5	U	mg/L	0.5			0.01270	0.05	10	0.127	05/29/03	22:47
226244	As1890	0.05	U	mg/L	0.05			0.00168	0.005	10	0.0168	05/29/03	22:47
226244	B_2496	0.25	U	mg/L	0.25			-0.00312	0.025	10	-0.0312	05/29/03	22:47
226244	Ba4934	0.190		mg/L	0.05			0.01904	0.005	10	0.1904	05/29/03	22:47
226244	Be3130	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	22:47
226244	Bi2230	0.15	U	mg/L	0.15			0.00122	0.015	10	0.0122	05/29/03	22:47
226244	Ca3179	412		mg/L	1.5			41.24657	0.15	10	412.4657	05/29/03	22:47
226244	Cd2265	0.05	U	mg/L	0.05			0.00018	0.005	10	0.0018	05/29/03	22:47
226244	Co2286	0.05	U	mg/L	0.05			0.00045	0.005	10	0.0045	05/29/03	22:47
226244	Cr2677	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	22:47
226244	Cu3247	0.05	U	mg/L	0.05			0.00070	0.005	10	0.007	06/09/03	

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226244	Fe2714	0.6	U	mg/L	0.6			-0.00205	0.06	10	-0.0205	05/29/03	22:47
226244	K_7664	1	U	mg/L	1			0.01253	0.1	10	0.1253	05/29/03	22:47
226244	La3988	0.05	U	mg/L	0.05			0.00083	0.005	10	0.0083	05/29/03	22:47
226244	Li6707	0.05	U	mg/L	0.05			0.00007	0.005	10	0.0007	05/29/03	22:47
226244	Mg2790	0.5	U	mg/L	0.5			0.00929	0.05	10	0.0929	05/29/03	22:47
226244	Mn2576	0.05	U	mg/L	0.05			0.00047	0.005	10	0.0047	05/29/03	22:47
226244	Mo2020	0.05	U	mg/L	0.05			-0.00156	0.005	10	-0.0156	05/29/03	22:47
226244	Na5889	1	U	mg/L	1			0.01333	0.1	10	0.1333	05/29/03	22:47
226244	Ni2316	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	22:47
226244	P_1782	0.25	U	mg/L	0.25			-0.00941	0.025	10	-0.0941	05/29/03	22:47
226244	Pb220	0.05	U	mg/L	0.05			-0.00010	0.005	10	-0.001	05/29/03	22:47
226244	Pd3404	0.1	U	mg/L	0.1			0.00233	0.01	10	0.0233	05/29/03	22:47
226244	S_1820	0.25	U	mg/L	0.25			0.00472	0.025	10	0.0472	05/29/03	22:47
226244	Sb2068	0.1	U	mg/L	0.1			0.00166	0.01	10	0.0166	05/29/03	22:47
226244	Se196	0.05	U	mg/L	0.05			-0.00062	0.005	10	-0.0062	05/29/03	22:47
226244	Si2881	32.9		mg/L	0.25			3.28556	0.025	10	32.8556	05/29/03	22:47
226244	Sn1899	0.05	U	mg/L	0.05			0.00270	0.005	10	0.027	06/09/03	
226244	Sr4215	0.267		mg/L	0.05			0.02668	0.005	10	0.2668	05/29/03	22:47
226244	Th2837	0.1	U	mg/L	0.1			0.00041	0.01	10	0.0041	05/29/03	22:47
226244	Ti3349	0.05	U	mg/L	0.05			-0.00005	0.005	10	-0.0005	05/29/03	22:47
226244	Tl1908	0.1	U	mg/L	0.1			-0.00199	0.01	10	-0.0199	05/29/03	22:47
226244	V_2924	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	22:47
226244	W_2079	0.1	U	mg/L	0.1			0.00072	0.01	10	0.0072	05/29/03	22:47
226244	Y_3710	0.05	U	mg/L	0.05			-0.00008	0.005	10	-0.0008	05/29/03	22:47
226244	Zn2062	0.05	U	mg/L	0.05			0.00025	0.005	10	0.0025	05/29/03	22:47
226244	Zr3496	0.05	U	mg/L	0.05			-0.00012	0.005	10	-0.0012	05/29/03	22:47
226245	Ag3280	0.05	U	mg/L	0.05			0.00040	0.005	10	0.004	05/29/03	22:52
226245	Al3082	0.5	U	mg/L	0.5			0.00929	0.05	10	0.0929	05/29/03	22:52
226245	As1890	0.05	U	mg/L	0.05			0.00216	0.005	10	0.0216	05/29/03	22:52
226245	B_2496	0.25	U	mg/L	0.25			-0.00263	0.025	10	-0.0263	05/29/03	22:52
226245	Ba4934	0.516		mg/L	0.05			0.05155	0.005	10	0.5155	05/29/03	22:52
226245	Be3130	0.05	U	mg/L	0.05			0.00001	0.005	10	0.0001	05/29/03	22:52
226245	Bi2230	0.15	U	mg/L	0.15			0.00330	0.015	10	0.033	05/29/03	22:52
226245	Ca3179	502		mg/L	1.5			50.15773	0.15	10	501.5773	05/29/03	22:52
226245	Cd2265	0.05	U	mg/L	0.05			0.00009	0.005	10	0.0009	05/29/03	22:52
226245	Co2286	0.05	U	mg/L	0.05			0.00361	0.005	10	0.0361	05/29/03	22:52
226245	Cr2677	0.05	U	mg/L	0.05			0.00033	0.005	10	0.0033	05/29/03	22:52
226245	Cu3247	0.05	U	mg/L	0.05			0.00152	0.005	10	0.0152	05/29/03	22:52
226245	Fe2714	0.6	U	mg/L	0.6			0.02364	0.06	10	0.2364	05/29/03	22:52
226245	K_7664	1	U	mg/L	1			0.08304	0.1	10	0.8304	05/29/03	22:52

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226245	La3988	0.05	U	mg/L	0.05			0.00082	0.005	10	0.0082	05/29/03	22:52
226245	Li6707	0.05	U	mg/L	0.05			0.00011	0.005	10	0.0011	05/29/03	22:52
226245	Mg2790	0.5	U	mg/L	0.5			0.00918	0.05	10	0.0918	05/29/03	22:52
226245	Mn2576	0.05	U	mg/L	0.05			0.00161	0.005	10	0.0161	05/29/03	22:52
226245	Mo2020	0.05	U	mg/L	0.05			-0.00170	0.005	10	-0.017	05/29/03	22:52
226245	Na5889	1	U	mg/L	1			0.01681	0.1	10	0.1681	05/29/03	22:52
226245	Ni2316	0.05	U	mg/L	0.05			0.00018	0.005	10	0.0018	05/29/03	22:52
226245	P_1782	0.25	U	mg/L	0.25			-0.00072	0.025	10	-0.0072	05/29/03	22:52
226245	Pb220	0.05	U	mg/L	0.05			0.00042	0.005	10	0.0042	05/29/03	22:52
226245	Pd3404	0.1	U	mg/L	0.1			0.00433	0.01	10	0.0433	05/29/03	22:52
226245	S_1820	0.25	U	mg/L	0.25			0.00432	0.025	10	0.0432	05/29/03	22:52
226245	Sb2068	0.1	U	mg/L	0.1			-0.00037	0.01	10	-0.0037	05/29/03	22:52
226245	Se196	0.05	U	mg/L	0.05			0.00067	0.005	10	0.0067	05/29/03	22:52
226245	Si2881	39.5		mg/L	0.25			3.94673	0.025	10	39.4673	05/29/03	22:52
226245	Sn1899	0.05	U	mg/L	0.05			-0.00031	0.005	10	-0.0031	05/29/03	22:52
226245	Sr4215	0.324		mg/L	0.05			0.03241	0.005	10	0.3241	05/29/03	22:52
226245	Th2837	0.1	U	mg/L	0.1			0.00115	0.01	10	0.0115	05/29/03	22:52
226245	Ti3349	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	22:52
226245	Tl1908	0.1	U	mg/L	0.1			-0.00071	0.01	10	-0.0071	05/29/03	22:52
226245	V_2924	0.05	U	mg/L	0.05			0.00048	0.005	10	0.0048	05/29/03	22:52
226245	W_2079	0.1	U	mg/L	0.1			0.00072	0.01	10	0.0072	05/29/03	22:52
226245	Y_3710	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	22:52
226245	Zn2062	0.05	U	mg/L	0.05			0.00240	0.005	10	0.024	05/29/03	22:52
226245	Zr3496	0.05	U	mg/L	0.05			-0.00014	0.005	10	-0.0014	05/29/03	22:52
226246	Ag3280	0.05	U	mg/L	0.05			0.00067	0.005	10	0.0067	05/29/03	22:56
226246	Al3082	0.5	U	mg/L	0.5			0.01655	0.05	10	0.1655	05/29/03	22:56
226246	As1890	0.05	U	mg/L	0.05			-0.00015	0.005	10	-0.0015	05/29/03	22:56
226246	B_2496	0.25	U	mg/L	0.25			-0.00248	0.025	10	-0.0248	05/29/03	22:56
226246	Ba4934	0.356		mg/L	0.05			0.03556	0.005	10	0.3556	05/29/03	22:56
226246	Be3130	0.05	U	mg/L	0.05			0.00001	0.005	10	0.0001	05/29/03	22:56
226246	Bi2230	0.15	U	mg/L	0.15			0.00286	0.015	10	0.0286	05/29/03	22:56
226246	Ca3179	416		mg/L	1.5			41.56246	0.15	10	415.6246	05/29/03	22:56
226246	Cd2265	0.05	U	mg/L	0.05			0.00024	0.005	10	0.0024	05/29/03	22:56
226246	Co2286	0.05	U	mg/L	0.05			0.00033	0.005	10	0.0033	05/29/03	22:56
226246	Cr2677	0.05	U	mg/L	0.05			0.00122	0.005	10	0.0122	05/29/03	22:56
226246	Cu3247	0.05	U	mg/L	0.05			0.00220	0.005	10	0.022	05/29/03	22:56
226246	Fe2714	0.6	U	mg/L	0.6			0.03719	0.06	10	0.3719	05/29/03	22:56
226246	K_7664	1	U	mg/L	1			0.06147	0.1	10	0.6147	05/29/03	22:56
226246	La3988	0.05	U	mg/L	0.05			0.00158	0.005	10	0.0158	05/29/03	22:56
226246	Li6707	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	22:56

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system id	elem	result	qual	units	rl	tv	rec		@instr ug/ml	rl	df	mg/L	date	time
226246	Mg2790	0.5	U	mg/L	0.5				0.01281	0.05	10	0.1281	05/29/03	22:56
226246	Mn2576	0.05	U	mg/L	0.05				0.00063	0.005	10	0.0063	05/29/03	22:56
226246	Mo2020	0.05	U	mg/L	0.05				-0.00124	0.005	10	-0.0124	05/29/03	22:56
226246	Na5889	1	U	mg/L	1				0.01592	0.1	10	0.1592	05/29/03	22:56
226246	Ni2316	0.05	U	mg/L	0.05				-0.00033	0.005	10	-0.0033	05/29/03	22:56
226246	P_1782	0.25	U	mg/L	0.25				-0.00332	0.025	10	-0.0332	05/29/03	22:56
226246	Pb220	0.05	U	mg/L	0.05				-0.00067	0.005	10	-0.0067	05/29/03	22:56
226246	Pd3404	0.1	U	mg/L	0.1				0.00936	0.01	10	0.0936	05/29/03	22:56
226246	S_1820	0.25	U	mg/L	0.25				-0.00547	0.025	10	-0.0547	05/29/03	22:56
226246	Sb2068	0.1	U	mg/L	0.1				0.00500	0.01	10	0.05	05/29/03	22:56
226246	Se196	0.05	U	mg/L	0.05				0.00147	0.005	10	0.0147	05/29/03	22:56
226246	Si2881	32.7		mg/L	0.25				3.27372	0.025	10	32.7372	05/29/03	22:56
226246	Sn1899	0.05	U	mg/L	0.05				-0.00020	0.005	10	-0.002	05/29/03	22:56
226246	Sr4215	0.268		mg/L	0.05				0.02682	0.005	10	0.2682	05/29/03	22:56
226246	Th2837	0.1	U	mg/L	0.1				0.00248	0.01	10	0.0248	05/29/03	22:56
226246	Ti3349	0.05	U	mg/L	0.05				0.00017	0.005	10	0.0017	05/29/03	22:56
226246	Tl1908	0.1	U	mg/L	0.1				-0.00006	0.01	10	-0.0006	05/29/03	22:56
226246	V_2924	0.05	U	mg/L	0.05				0.00108	0.005	10	0.0108	05/29/03	22:56
226246	W_2079	0.1	U	mg/L	0.1				0.00120	0.01	10	0.012	05/29/03	22:56
226246	Y_3710	0.05	U	mg/L	0.05				0.00006	0.005	10	0.0006	05/29/03	22:56
226246	Zn2062	0.05	U	mg/L	0.05				0.00084	0.005	10	0.0084	05/29/03	22:56
226246	Zr3496	0.05	U	mg/L	0.05				0.00039	0.005	10	0.0039	05/29/03	22:56
226247	Ag3280	0.05	U	mg/L	0.05				0.00030	0.005	10	0.003	05/29/03	23:01
226247	Al3082	0.5	U	mg/L	0.5				0.01215	0.05	10	0.1215	05/29/03	23:01
226247	As1890	0.05	U	mg/L	0.05				0.00130	0.005	10	0.013	05/29/03	23:01
226247	B_2496	0.25	U	mg/L	0.25				-0.00349	0.025	10	-0.0349	05/29/03	23:01
226247	Ba4934	0.438		mg/L	0.05				0.04381	0.005	10	0.4381	05/29/03	23:01
226247	Be3130	0.05	U	mg/L	0.05				0.00000	0.005	10	0	05/29/03	23:01
226247	Bi2230	0.15	U	mg/L	0.15				-0.00021	0.015	10	-0.0021	05/29/03	23:01
226247	Ca3179	423		mg/L	1.5				42.34427	0.15	10	423.4427	05/29/03	23:01
226247	Cd2265	0.05	U	mg/L	0.05				0.00027	0.005	10	0.0027	05/29/03	23:01
226247	Co2286	0.05	U	mg/L	0.05				0.00069	0.005	10	0.0069	05/29/03	23:01
226247	Cr2677	0.05	U	mg/L	0.05				0.00049	0.005	10	0.0049	05/29/03	23:01
226247	Cu3247	0.05	U	mg/L	0.05				0.00060	0.005	10	0.006	06/09/03	
226247	Fe2714	0.6	U	mg/L	0.6				0.02493	0.06	10	0.2493	05/29/03	23:01
226247	K_7664	1	U	mg/L	1				0.03926	0.1	10	0.3926	05/29/03	23:01
226247	La3988	0.05	U	mg/L	0.05				0.00096	0.005	10	0.0096	05/29/03	23:01
226247	Li6707	0.05	U	mg/L	0.05				0.00005	0.005	10	0.0005	05/29/03	23:01
226247	Mg2790	0.5	U	mg/L	0.5				0.01304	0.05	10	0.1304	05/29/03	23:01
226247	Mn2576	0.05	U	mg/L	0.05				0.00074	0.005	10	0.0074	05/29/03	23:01

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226247	Mo2020	0.05	U	mg/L	0.05			-0.00165	0.005	10	-0.0165	05/29/03	23:01
226247	Na5889	1	U	mg/L	1			0.02371	0.1	10	0.2371	05/29/03	23:01
226247	Ni2316	0.05	U	mg/L	0.05			0.00061	0.005	10	0.0061	05/29/03	23:01
226247	P_1782	0.25	U	mg/L	0.25			-0.00231	0.025	10	-0.0231	05/29/03	23:01
226247	Pb220	0.05	U	mg/L	0.05			0.00072	0.005	10	0.0072	05/29/03	23:01
226247	Pd3404	0.1	U	mg/L	0.1			0.00369	0.01	10	0.0369	05/29/03	23:01
226247	S_1820	0.25	U	mg/L	0.25			0.00535	0.025	10	0.0535	05/29/03	23:01
226247	Sb2068	0.1	U	mg/L	0.1			-0.00026	0.01	10	-0.0026	05/29/03	23:01
226247	Se196	0.05	U	mg/L	0.05			-0.00049	0.005	10	-0.0049	05/29/03	23:01
226247	Si2881	33.4		mg/L	0.25			3.34321	0.025	10	33.4321	05/29/03	23:01
226247	Sn1899	0.05	U	mg/L	0.05			0.00236	0.005	10	0.0236	05/29/03	23:01
226247	Sr4215	0.274		mg/L	0.05			0.02742	0.005	10	0.2742	05/29/03	23:01
226247	Th2837	0.1	U	mg/L	0.1			0.00136	0.01	10	0.0136	05/29/03	23:01
226247	Ti3349	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	23:01
226247	Tl1908	0.1	U	mg/L	0.1			-0.00280	0.01	10	-0.028	05/29/03	23:01
226247	V_2924	0.05	U	mg/L	0.05			0.00004	0.005	10	0.0004	05/29/03	23:01
226247	W_2079	0.1	U	mg/L	0.1			0.00151	0.01	10	0.0151	05/29/03	23:01
226247	Y_3710	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	23:01
226247	Zn2062	0.05	U	mg/L	0.05			0.00084	0.005	10	0.0084	05/29/03	23:01
226247	Zr3496	0.05	U	mg/L	0.05			-0.00001	0.005	10	-0.0001	05/29/03	23:01
226248	Ag3280	0.05	U	mg/L	0.05			0.00083	0.005	10	0.0083	05/29/03	23:21
226248	Al3082	0.5	U	mg/L	0.5			0.01276	0.05	10	0.1276	05/29/03	23:21
226248	As1890	0.05	U	mg/L	0.05			0.00123	0.005	10	0.0123	05/29/03	23:21
226248	B_2496	0.25	U	mg/L	0.25			0.00072	0.025	10	0.0072	05/29/03	23:21
226248	Ba4934	0.462		mg/L	0.05			0.04621	0.005	10	0.4621	05/29/03	23:21
226248	Be3130	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	23:21
226248	Bi2230	0.15	U	mg/L	0.15			0.00339	0.015	10	0.0339	05/29/03	23:21
226248	Ca3179	433		mg/L	1.5			43.25519	0.15	10	432.5519	05/29/03	23:21
226248	Cd2265	0.05	U	mg/L	0.05			0.00037	0.005	10	0.0037	05/29/03	23:21
226248	Co2286	0.05	U	mg/L	0.05			0.00076	0.005	10	0.0076	05/29/03	23:21
226248	Cr2677	0.05	U	mg/L	0.05			0.00036	0.005	10	0.0036	05/29/03	23:21
226248	Cu3247	0.05	U	mg/L	0.05			0.00123	0.005	10	0.0123	05/29/03	23:21
226248	Fe2714	0.6	U	mg/L	0.6			0.02611	0.06	10	0.2611	05/29/03	23:21
226248	K_7664	1	U	mg/L	1			0.04625	0.1	10	0.4625	05/29/03	23:21
226248	La3988	0.05	U	mg/L	0.05			0.00118	0.005	10	0.0118	05/29/03	23:21
226248	Li6707	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	23:21
226248	Mg2790	0.5	U	mg/L	0.5			0.01231	0.05	10	0.1231	05/29/03	23:21
226248	Mn2576	0.05	U	mg/L	0.05			0.00084	0.005	10	0.0084	05/29/03	23:21
226248	Mo2020	0.05	U	mg/L	0.05			-0.00025	0.005	10	-0.0025	05/29/03	23:21
226248	Na5889	1	U	mg/L	1			0.02588	0.1	10	0.2588	05/29/03	23:21

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226248	Ni2316	0.05	U	mg/L	0.05			0.00090	0.005	10	0.009	05/29/03	23:21
226248	P_1782	0.25	U	mg/L	0.25			-0.00016	0.025	10	-0.0016	05/29/03	23:21
226248	Pb220	0.05	U	mg/L	0.05			0.00042	0.005	10	0.0042	05/29/03	23:21
226248	Pd3404	0.1	U	mg/L	0.1			0.00653	0.01	10	0.0653	05/29/03	23:21
226248	S_1820	0.25	U	mg/L	0.25			0.00099	0.025	10	0.0099	05/29/03	23:21
226248	Sb2068	0.1	U	mg/L	0.1			0.00299	0.01	10	0.0299	05/29/03	23:21
226248	Se196	0.05	U	mg/L	0.05			-0.00064	0.005	10	-0.0064	05/29/03	23:21
226248	Si2881	34.3		mg/L	0.25			3.43293	0.025	10	34.3293	05/29/03	23:21
226248	Sn1899	0.05	U	mg/L	0.05			0.00113	0.005	10	0.0113	05/29/03	23:21
226248	Sr4215	0.283		mg/L	0.05			0.02828	0.005	10	0.2828	05/29/03	23:21
226248	Th2837	0.1	U	mg/L	0.1			-0.00078	0.01	10	-0.0078	05/29/03	23:21
226248	Ti3349	0.05	U	mg/L	0.05			-0.00008	0.005	10	-0.0008	05/29/03	23:21
226248	Tl1908	0.1	U	mg/L	0.1			-0.00089	0.01	10	-0.0089	05/29/03	23:21
226248	V_2924	0.05	U	mg/L	0.05			0.00039	0.005	10	0.0039	05/29/03	23:21
226248	W_2079	0.1	U	mg/L	0.1			0.00351	0.01	10	0.0351	05/29/03	23:21
226248	Y_3710	0.05	U	mg/L	0.05			-0.00003	0.005	10	-0.0003	05/29/03	23:21
226248	Zn2062	0.05	U	mg/L	0.05			0.00049	0.005	10	0.0049	05/29/03	23:21
226248	Zr3496	0.05	U	mg/L	0.05			-0.00024	0.005	10	-0.0024	05/29/03	23:21
226249	Ag3280	0.05	U	mg/L	0.05			0.00026	0.005	10	0.0026	05/29/03	23:25
226249	Al3082	0.5	U	mg/L	0.5			0.01205	0.05	10	0.1205	05/29/03	23:25
226249	As1890	0.05	U	mg/L	0.05			0.00049	0.005	10	0.0049	05/29/03	23:25
226249	B_2496	0.25	U	mg/L	0.25			-0.00125	0.025	10	-0.0125	05/29/03	23:25
226249	Ba4934	0.468		mg/L	0.05			0.04677	0.005	10	0.4677	05/29/03	23:25
226249	Be3130	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	23:25
226249	Bi2230	0.15	U	mg/L	0.15			0.00201	0.015	10	0.0201	05/29/03	23:25
226249	Ca3179	444		mg/L	1.5			44.43238	0.15	10	444.3238	05/29/03	23:25
226249	Cd2265	0.05	U	mg/L	0.05			0.00016	0.005	10	0.0016	05/29/03	23:25
226249	Co2286	0.05	U	mg/L	0.05			0.00217	0.005	10	0.0217	05/29/03	23:25
226249	Cr2677	0.05	U	mg/L	0.05			0.00015	0.005	10	0.0015	05/29/03	23:25
226249	Cu3247	0.05	U	mg/L	0.05			0.00100	0.005	10	0.01	05/29/03	23:25
226249	Fe2714	0.6	U	mg/L	0.6			0.01488	0.06	10	0.1488	05/29/03	23:25
226249	K_7664	1	U	mg/L	1			0.03816	0.1	10	0.3816	05/29/03	23:25
226249	La3988	0.05	U	mg/L	0.05			0.00083	0.005	10	0.0083	05/29/03	23:25
226249	Li6707	0.05	U	mg/L	0.05			0.00007	0.005	10	0.0007	05/29/03	23:25
226249	Mg2790	0.5	U	mg/L	0.5			0.00968	0.05	10	0.0968	05/29/03	23:25
226249	Mn2576	0.05	U	mg/L	0.05			0.00091	0.005	10	0.0091	05/29/03	23:25
226249	Mo2020	0.05	U	mg/L	0.05			-0.00154	0.005	10	-0.0154	05/29/03	23:25
226249	Na5889	1	U	mg/L	1			0.01885	0.1	10	0.1885	05/29/03	23:25
226249	Ni2316	0.05	U	mg/L	0.05			0.00042	0.005	10	0.0042	05/29/03	23:25
226249	P_1782	0.25	U	mg/L	0.25			-0.00642	0.025	10	-0.0642	05/29/03	23:25

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226249	Pb220	0.05	U	mg/L	0.05			-0.00017	0.005	10	-0.0017	05/29/03	23:25
226249	Pd3404	0.1	U	mg/L	0.1			0.00336	0.01	10	0.0336	05/29/03	23:25
226249	S_1820	0.25	U	mg/L	0.25			0.00144	0.025	10	0.0144	05/29/03	23:25
226249	Sb2068	0.1	U	mg/L	0.1			-0.00178	0.01	10	-0.0178	05/29/03	23:25
226249	Se196	0.05	U	mg/L	0.05			-0.00107	0.005	10	-0.0107	05/29/03	23:25
226249	Si2881	35.1		mg/L	0.25			3.50633	0.025	10	35.0633	05/29/03	23:25
226249	Sn1899	0.05	U	mg/L	0.05			0.00089	0.005	10	0.0089	05/29/03	23:25
226249	Sr4215	0.289		mg/L	0.05			0.02890	0.005	10	0.289	05/29/03	23:25
226249	Th2837	0.1	U	mg/L	0.1			-0.00135	0.01	10	-0.0135	05/29/03	23:25
226249	Ti3349	0.05	U	mg/L	0.05			-0.00028	0.005	10	-0.0028	05/29/03	23:25
226249	Tl1908	0.1	U	mg/L	0.1			-0.00037	0.01	10	-0.0037	05/29/03	23:25
226249	V_2924	0.05	U	mg/L	0.05			-0.00072	0.005	10	-0.0072	05/29/03	23:25
226249	W_2079	0.1	U	mg/L	0.1			0.00354	0.01	10	0.0354	05/29/03	23:25
226249	Y_3710	0.05	U	mg/L	0.05			-0.00009	0.005	10	-0.0009	05/29/03	23:25
226249	Zn2062	0.05	U	mg/L	0.05			0.00049	0.005	10	0.0049	05/29/03	23:25
226249	Zr3496	0.05	U	mg/L	0.05			-0.00066	0.005	10	-0.0066	05/29/03	23:25
226250	Ag3280	0.05	U	mg/L	0.05			0.00089	0.005	10	0.0089	05/29/03	23:30
226250	Al3082	0.5	U	mg/L	0.5			0.01383	0.05	10	0.1383	05/29/03	23:30
226250	As1890	0.05	U	mg/L	0.05			-0.00087	0.005	10	-0.0087	05/29/03	23:30
226250	B_2496	0.25	U	mg/L	0.25			-0.00175	0.025	10	-0.0175	05/29/03	23:30
226250	Ba4934	0.478		mg/L	0.05			0.04775	0.005	10	0.4775	05/29/03	23:30
226250	Be3130	0.05	U	mg/L	0.05			-0.00003	0.005	10	-0.0003	05/29/03	23:30
226250	Bi2230	0.15	U	mg/L	0.15			0.00171	0.015	10	0.0171	05/29/03	23:30
226250	Ca3179	455		mg/L	1.5			45.51428	0.15	10	455.1428	05/29/03	23:30
226250	Cd2265	0.05	U	mg/L	0.05			0.00033	0.005	10	0.0033	05/29/03	23:30
226250	Co2286	0.05	U	mg/L	0.05			0.00282	0.005	10	0.0282	05/29/03	23:30
226250	Cr2677	0.05	U	mg/L	0.05			0.00036	0.005	10	0.0036	05/29/03	23:30
226250	Cu3247	0.05	U	mg/L	0.05			0.00100	0.005	10	0.01	05/29/03	23:30
226250	Fe2714	0.6	U	mg/L	0.6			0.02747	0.06	10	0.2747	05/29/03	23:30
226250	K_7664	1	U	mg/L	1			0.05189	0.1	10	0.5189	05/29/03	23:30
226250	La3988	0.05	U	mg/L	0.05			0.00199	0.005	10	0.0199	05/29/03	23:30
226250	Li6707	0.05	U	mg/L	0.05			0.00010	0.005	10	0.001	05/29/03	23:30
226250	Mg2790	0.5	U	mg/L	0.5			0.01304	0.05	10	0.1304	05/29/03	23:30
226250	Mn2576	0.05	U	mg/L	0.05			0.00106	0.005	10	0.0106	05/29/03	23:30
226250	Mo2020	0.05	U	mg/L	0.05			-0.00169	0.005	10	-0.0169	05/29/03	23:30
226250	Na5889	1	U	mg/L	1			0.01528	0.1	10	0.1528	05/29/03	23:30
226250	Ni2316	0.05	U	mg/L	0.05			-0.00051	0.005	10	-0.0051	05/29/03	23:30
226250	P_1782	0.25	U	mg/L	0.25			0.00207	0.025	10	0.0207	05/29/03	23:30
226250	Pb220	0.05	U	mg/L	0.05			-0.00098	0.005	10	-0.0098	05/29/03	23:30
226250	Pd3404	0.1	U	mg/L	0.1			0.00692	0.01	10	0.0692	05/29/03	23:30

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226250	S_1820	0.25	U	mg/L	0.25			0.00474	0.025	10	0.0474	05/29/03	23:30
226250	Sb2068	0.1	U	mg/L	0.1			-0.00301	0.01	10	-0.0301	05/29/03	23:30
226250	Se196	0.05	U	mg/L	0.05			-0.00206	0.005	10	-0.0206	05/29/03	23:30
226250	Si2881	35.8		mg/L	0.25			3.58096	0.025	10	35.8096	05/29/03	23:30
226250	Sn1899	0.05	U	mg/L	0.05			0.00116	0.005	10	0.0116	05/29/03	23:30
226250	Sr4215	0.298		mg/L	0.05			0.02983	0.005	10	0.2983	05/29/03	23:30
226250	Th2837	0.1	U	mg/L	0.1			-0.00112	0.01	10	-0.0112	05/29/03	23:30
226250	Ti3349	0.05	U	mg/L	0.05			-0.00012	0.005	10	-0.0012	05/29/03	23:30
226250	Tl1908	0.1	U	mg/L	0.1			-0.00175	0.01	10	-0.0175	05/29/03	23:30
226250	V_2924	0.05	U	mg/L	0.05			0.00012	0.005	10	0.0012	05/29/03	23:30
226250	W_2079	0.1	U	mg/L	0.1			0.00425	0.01	10	0.0425	05/29/03	23:30
226250	Y_3710	0.05	U	mg/L	0.05			-0.00007	0.005	10	-0.0007	05/29/03	23:30
226250	Zn2062	0.05	U	mg/L	0.05			0.00120	0.005	10	0.012	05/29/03	23:30
226250	Zr3496	0.05	U	mg/L	0.05			-0.00014	0.005	10	-0.0014	05/29/03	23:30
226251	Ag3280	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	23:35
226251	Al3082	0.5	U	mg/L	0.5			0.01004	0.05	10	0.1004	05/29/03	23:35
226251	As1890	0.05	U	mg/L	0.05			0.00071	0.005	10	0.0071	05/29/03	23:35
226251	B_2496	0.25	U	mg/L	0.25			-0.00281	0.025	10	-0.0281	05/29/03	23:35
226251	Ba4934	0.479		mg/L	0.05			0.04788	0.005	10	0.4788	05/29/03	23:35
226251	Be3130	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	23:35
226251	Bi2230	0.15	U	mg/L	0.15			0.00113	0.015	10	0.0113	05/29/03	23:35
226251	Ca3179	463		mg/L	1.5			46.29293	0.15	10	462.9293	05/29/03	23:35
226251	Cd2265	0.05	U	mg/L	0.05			0.00025	0.005	10	0.0025	05/29/03	23:35
226251	Co2286	0.05	U	mg/L	0.05			-0.00019	0.005	10	-0.0019	05/29/03	23:35
226251	Cr2677	0.05	U	mg/L	0.05			-0.00050	0.005	10	-0.005	05/29/03	23:35
226251	Cu3247	0.05	U	mg/L	0.05			0.00109	0.005	10	0.0109	05/29/03	23:35
226251	Fe2714	0.6	U	mg/L	0.6			0.02526	0.06	10	0.2526	05/29/03	23:35
226251	K_7664	1	U	mg/L	1			0.05311	0.1	10	0.5311	05/29/03	23:35
226251	La3988	0.05	U	mg/L	0.05			0.00079	0.005	10	0.0079	05/29/03	23:35
226251	Li6707	0.05	U	mg/L	0.05			0.00007	0.005	10	0.0007	05/29/03	23:35
226251	Mg2790	0.5	U	mg/L	0.5			0.00785	0.05	10	0.0785	05/29/03	23:35
226251	Mn2576	0.05	U	mg/L	0.05			0.00107	0.005	10	0.0107	05/29/03	23:35
226251	Mo2020	0.05	U	mg/L	0.05			-0.00150	0.005	10	-0.015	05/29/03	23:35
226251	Na5889	1	U	mg/L	1			0.01579	0.1	10	0.1579	05/29/03	23:35
226251	Ni2316	0.05	U	mg/L	0.05			-0.00062	0.005	10	-0.0062	05/29/03	23:35
226251	P_1782	0.25	U	mg/L	0.25			-0.00512	0.025	10	-0.0512	05/29/03	23:35
226251	Pb220	0.05	U	mg/L	0.05			0.00095	0.005	10	0.0095	05/29/03	23:35
226251	Pd3404	0.1	U	mg/L	0.1			0.00554	0.01	10	0.0554	05/29/03	23:35
226251	S_1820	0.25	U	mg/L	0.25			0.00132	0.025	10	0.0132	05/29/03	23:35
226251	Sb2068	0.1	U	mg/L	0.1			0.00101	0.01	10	0.0101	05/29/03	23:35

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226251	Se196	0.05	U	mg/L	0.05				0.00095	0.005	10	0.0095	05/29/03	23:35
226251	Si2881	36.5		mg/L	0.25				3.64802	0.025	10	36.4802	05/29/03	23:35
226251	Sn1899	0.05	U	mg/L	0.05				0.00156	0.005	10	0.0156	05/29/03	23:35
226251	Sr4215	0.299		mg/L	0.05				0.02991	0.005	10	0.2991	05/29/03	23:35
226251	Th2837	0.1	U	mg/L	0.1				-0.00159	0.01	10	-0.0159	05/29/03	23:35
226251	Ti3349	0.05	U	mg/L	0.05				-0.00026	0.005	10	-0.0026	05/29/03	23:35
226251	Tl1908	0.1	U	mg/L	0.1				0.00137	0.01	10	0.0137	05/29/03	23:35
226251	V_2924	0.05	U	mg/L	0.05				0.00005	0.005	10	0.0005	05/29/03	23:35
226251	W_2079	0.1	U	mg/L	0.1				-0.00030	0.01	10	-0.003	05/29/03	23:35
226251	Y_3710	0.05	U	mg/L	0.05				-0.00008	0.005	10	-0.0008	05/29/03	23:35
226251	Zn2062	0.05	U	mg/L	0.05				0.00038	0.005	10	0.0038	05/29/03	23:35
226251	Zr3496	0.05	U	mg/L	0.05				-0.00077	0.005	10	-0.0077	05/29/03	23:35
226252	Ag3280	0.05	U	mg/L	0.05				0.00000	0.005	10	0	05/29/03	23:39
226252	Al3082	0.5	U	mg/L	0.5				0.00995	0.05	10	0.0995	05/29/03	23:39
226252	As1890	0.05	U	mg/L	0.05				0.00009	0.005	10	0.0009	05/29/03	23:39
226252	B_2496	0.25	U	mg/L	0.25				-0.00181	0.025	10	-0.0181	05/29/03	23:39
226252	Ba4934	0.491		mg/L	0.05				0.04914	0.005	10	0.4914	05/29/03	23:39
226252	Be3130	0.05	U	mg/L	0.05				0.00000	0.005	10	0	05/29/03	23:39
226252	Bi2230	0.15	U	mg/L	0.15				-0.00086	0.015	10	-0.0086	05/29/03	23:39
226252	Ca3179	469		mg/L	1.5				46.85340	0.15	10	468.534	05/29/03	23:39
226252	Cd2265	0.05	U	mg/L	0.05				0.00014	0.005	10	0.0014	05/29/03	23:39
226252	Co2286	0.05	U	mg/L	0.05				0.00021	0.005	10	0.0021	05/29/03	23:39
226252	Cr2677	0.05	U	mg/L	0.05				0.00132	0.005	10	0.0132	05/29/03	23:39
226252	Cu3247	0.05	U	mg/L	0.05				0.00209	0.005	10	0.0209	05/29/03	23:39
226252	Fe2714	0.6	U	mg/L	0.6				0.00851	0.06	10	0.0851	05/29/03	23:39
226252	K_7664	1	U	mg/L	1				0.03091	0.1	10	0.3091	05/29/03	23:39
226252	La3988	0.05	U	mg/L	0.05				0.00032	0.005	10	0.0032	05/29/03	23:39
226252	Li6707	0.05	U	mg/L	0.05				0.00004	0.005	10	0.0004	05/29/03	23:39
226252	Mg2790	0.5	U	mg/L	0.5				0.00385	0.05	10	0.0385	05/29/03	23:39
226252	Mn2576	0.05	U	mg/L	0.05				0.00139	0.005	10	0.0139	05/29/03	23:39
226252	Mo2020	0.05	U	mg/L	0.05				-0.00139	0.005	10	-0.0139	05/29/03	23:39
226252	Na5889	1	U	mg/L	1				0.01916	0.1	10	0.1916	05/29/03	23:39
226252	Ni2316	0.05	U	mg/L	0.05				0.00071	0.005	10	0.0071	05/29/03	23:39
226252	P_1782	0.25	U	mg/L	0.25				0.00786	0.025	10	0.0786	05/29/03	23:39
226252	Pb220	0.05	U	mg/L	0.05				0.00043	0.005	10	0.0043	05/29/03	23:39
226252	Pd3404	0.1	U	mg/L	0.1				0.00405	0.01	10	0.0405	05/29/03	23:39
226252	S_1820	0.25	U	mg/L	0.25				0.00923	0.025	10	0.0923	05/29/03	23:39
226252	Sb2068	0.1	U	mg/L	0.1				0.00505	0.01	10	0.0505	05/29/03	23:39
226252	Se196	0.05	U	mg/L	0.05				0.00029	0.005	10	0.0029	05/29/03	23:39
226252	Si2881	36.9		mg/L	0.25				3.68863	0.025	10	36.8863	05/29/03	23:39

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226252	Sn1899	0.05	U	mg/L	0.05			-0.00002	0.005	10	-0.0002	05/29/03	23:39
226252	Sr4215	0.305		mg/L	0.05			0.03052	0.005	10	0.3052	05/29/03	23:39
226252	Th2837	0.1	U	mg/L	0.1			0.00303	0.01	10	0.0303	05/29/03	23:39
226252	Ti3349	0.05	U	mg/L	0.05			0.00023	0.005	10	0.0023	05/29/03	23:39
226252	Tl1908	0.1	U	mg/L	0.1			-0.00199	0.01	10	-0.0199	05/29/03	23:39
226252	V_2924	0.05	U	mg/L	0.05			0.00108	0.005	10	0.0108	05/29/03	23:39
226252	W_2079	0.1	U	mg/L	0.1			-0.00132	0.01	10	-0.0132	05/29/03	23:39
226252	Y_3710	0.05	U	mg/L	0.05			0.00026	0.005	10	0.0026	05/29/03	23:39
226252	Zn2062	0.05	U	mg/L	0.05			0.00066	0.005	10	0.0066	05/29/03	23:39
226252	Zr3496	0.05	U	mg/L	0.05			0.00058	0.005	10	0.0058	05/29/03	23:39
226253	Ag3280	0.05	U	mg/L	0.05			0.00027	0.005	10	0.0027	05/29/03	23:44
226253	Al3082	0.5	U	mg/L	0.5			0.00986	0.05	10	0.0986	05/29/03	23:44
226253	As1890	0.05	U	mg/L	0.05			0.00094	0.005	10	0.0094	05/29/03	23:44
226253	B_2496	0.25	U	mg/L	0.25			-0.00318	0.025	10	-0.0318	05/29/03	23:44
226253	Ba4934	0.499		mg/L	0.05			0.04992	0.005	10	0.4992	05/29/03	23:44
226253	Be3130	0.05	U	mg/L	0.05			-0.00001	0.005	10	-0.0001	05/29/03	23:44
226253	Bi2230	0.15	U	mg/L	0.15			0.00242	0.015	10	0.0242	05/29/03	23:44
226253	Ca3179	485		mg/L	1.5			48.54013	0.15	10	485.4013	05/29/03	23:44
226253	Cd2265	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	23:44
226253	Co2286	0.05	U	mg/L	0.05			0.00084	0.005	10	0.0084	05/29/03	23:44
226253	Cr2677	0.05	U	mg/L	0.05			-0.00024	0.005	10	-0.0024	05/29/03	23:44
226253	Cu3247	0.05	U	mg/L	0.05			0.00105	0.005	10	0.0105	05/29/03	23:44
226253	Fe2714	0.6	U	mg/L	0.6			-0.00147	0.06	10	-0.0147	05/29/03	23:44
226253	K_7664	1	U	mg/L	1			0.02781	0.1	10	0.2781	05/29/03	23:44
226253	La3988	0.05	U	mg/L	0.05			0.00108	0.005	10	0.0108	05/29/03	23:44
226253	Li6707	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	23:44
226253	Mg2790	0.5	U	mg/L	0.5			0.00731	0.05	10	0.0731	05/29/03	23:44
226253	Mn2576	0.05	U	mg/L	0.05			0.00137	0.005	10	0.0137	05/29/03	23:44
226253	Mo2020	0.05	U	mg/L	0.05			-0.00127	0.005	10	-0.0127	05/29/03	23:44
226253	Na5889	1	U	mg/L	1			0.01324	0.1	10	0.1324	05/29/03	23:44
226253	Ni2316	0.05	U	mg/L	0.05			0.00041	0.005	10	0.0041	05/29/03	23:44
226253	P_1782	0.25	U	mg/L	0.25			-0.00534	0.025	10	-0.0534	05/29/03	23:44
226253	Pb220	0.05	U	mg/L	0.05			0.00060	0.005	10	0.006	05/29/03	23:44
226253	Pd3404	0.1	U	mg/L	0.1			0.00350	0.01	10	0.035	05/29/03	23:44
226253	S_1820	0.25	U	mg/L	0.25			0.00261	0.025	10	0.0261	05/29/03	23:44
226253	Sb2068	0.1	U	mg/L	0.1			-0.00161	0.01	10	-0.0161	05/29/03	23:44
226253	Se196	0.05	U	mg/L	0.05			0.00090	0.005	10	0.009	05/29/03	23:44
226253	Si2881	38.4		mg/L	0.25			3.83553	0.025	10	38.3553	05/29/03	23:44
226253	Sn1899	0.05	U	mg/L	0.05			0.00028	0.005	10	0.0028	05/29/03	23:44
226253	Sr4215	0.315		mg/L	0.05			0.03147	0.005	10	0.3147	05/29/03	23:44

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
226253	Th2837	0.1	U	mg/L	0.1			-0.00211	0.01	10	-0.0211	05/29/03	23:44
226253	Ti3349	0.05	U	mg/L	0.05			-0.00021	0.005	10	-0.0021	05/29/03	23:44
226253	Tl1908	0.1	U	mg/L	0.1			-0.00117	0.01	10	-0.0117	05/29/03	23:44
226253	V_2924	0.05	U	mg/L	0.05			-0.00020	0.005	10	-0.002	05/29/03	23:44
226253	W_2079	0.1	U	mg/L	0.1			0.00173	0.01	10	0.0173	05/29/03	23:44
226253	Y_3710	0.05	U	mg/L	0.05			-0.00005	0.005	10	-0.0005	05/29/03	23:44
226253	Zn2062	0.05	U	mg/L	0.05			0.00072	0.005	10	0.0072	05/29/03	23:44
226253	Zr3496	0.05	U	mg/L	0.05			-0.00090	0.005	10	-0.009	05/29/03	23:44
lcsw-E29W2	Ag3280	0.496		mg/L	0.05	0.5	99.2%	0.04962	0.005	10	0.4962	05/29/03	19:46
lcsw-E29W2	Al3082	19.3		mg/L	0.5	20	96.7%	1.93319	0.05	10	19.3319	05/29/03	19:46
lcsw-E29W2	As1890	20.2		mg/L	0.05	20	101.0%	2.02084	0.005	10	20.2084	05/29/03	19:46
lcsw-E29W2	B_2496	0.25	U	mg/L	0.25			0.00196	0.025	10	0.0196	05/29/03	19:46
lcsw-E29W2	Ba4934	20.4		mg/L	0.05	20	101.9%	2.03816	0.005	10	20.3816	05/29/03	19:46
lcsw-E29W2	Be3130	0.488		mg/L	0.05	0.5	97.5%	0.04877	0.005	10	0.4877	05/29/03	19:46
lcsw-E29W2	Bi2230	0.15	U	mg/L	0.15			0.00111	0.015	10	0.0111	05/29/03	19:46
lcsw-E29W2	Ca3179	202		mg/L	1.5	200	101.0%	20.20582	0.15	10	202.0582	05/29/03	19:46
lcsw-E29W2	Cd2265	0.518		mg/L	0.05	0.5	103.5%	0.05176	0.005	10	0.5176	05/29/03	19:46
lcsw-E29W2	Co2286	5.05		mg/L	0.05	5	101.1%	0.50549	0.005	10	5.0549	05/29/03	19:46
lcsw-E29W2	Cr2677	1.94		mg/L	0.05	2	96.8%	0.19360	0.005	10	1.936	05/29/03	19:46
lcsw-E29W2	Cu3247	2.50		mg/L	0.05	2.5	99.9%	0.24986	0.005	10	2.4986	05/29/03	19:46
lcsw-E29W2	Fe2714	10.8		mg/L	0.6	10	108.1%	1.08054	0.06	10	10.8054	05/29/03	19:46
lcsw-E29W2	K_7664	172		mg/L	1	200	86.0%	17.19859	0.1	10	171.9859	05/29/03	19:46
lcsw-E29W2	La3988	0.05	U	mg/L	0.05			-0.00032	0.005	10	-0.0032	05/29/03	19:46
lcsw-E29W2	Li6707	0.05	U	mg/L	0.05			0.00019	0.005	10	0.0019	05/29/03	19:46
lcsw-E29W2	Mg2790	205		mg/L	0.5	200	102.5%	20.49410	0.05	10	204.941	05/29/03	19:46
lcsw-E29W2	Mn2576	5.09		mg/L	0.05	5	101.9%	0.50945	0.005	10	5.0945	05/29/03	19:46
lcsw-E29W2	Mo2020	0.05	U	mg/L	0.05			-0.00108	0.005	10	-0.0108	05/29/03	19:46
lcsw-E29W2	Na3302	180		mg/L	1	200	89.9%	17.97739	0.1	10	179.7739	05/29/03	19:46
lcsw-E29W2	Ni2316	4.84		mg/L	0.05	5	96.8%	0.48392	0.005	10	4.8392	05/29/03	19:46
lcsw-E29W2	P_1782	0.25	U	mg/L	0.25			-0.00440	0.025	10	-0.044	05/29/03	19:46
lcsw-E29W2	Pb220	5.08		mg/L	0.05	5	101.6%	0.50780	0.005	10	5.078	05/29/03	19:46
lcsw-E29W2	Pd3404	0.1	U	mg/L	0.1			-0.00202	0.01	10	-0.0202	05/29/03	19:46
lcsw-E29W2	S_1820	0.25	U	mg/L	0.25			0.00995	0.025	10	0.0995	05/29/03	19:46
lcsw-E29W2	Sb2068	4.93		mg/L	0.1	5	98.6%	0.49307	0.01	10	4.9307	05/29/03	19:46
lcsw-E29W2	Se196	20.4		mg/L	0.05	20	101.8%	2.03695	0.005	10	20.3695	05/29/03	19:46
lcsw-E29W2	Si2881	41.7		mg/L	0.25	40	104.2%	4.16603	0.025	10	41.6603	05/29/03	19:46
lcsw-E29W2	Sn1899	0.05	U	mg/L	0.05			0.00060	0.005	10	0.006	05/29/03	19:46
lcsw-E29W2	Sr4215	0.050	U	mg/L	0.05			0.00076	0.005	10	0.0076	05/29/03	19:46
lcsw-E29W2	Th2837	0.1	U	mg/L	0.1			-0.01332	0.01	10	-0.1332	05/29/03	19:46
lcsw-E29W2	Ti3349	0.05	U	mg/L	0.05			-0.00001	0.005	10	-0.0001	05/29/03	19:46

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
lcsw-E29W2	Tl1908	21.0		mg/L	0.1	20	104.8%	2.09621	0.01	10	20.9621	05/29/03	19:46
lcsw-E29W2	V_2924	5.06		mg/L	0.05	5	101.2%	0.50615	0.005	10	5.0615	05/29/03	19:46
lcsw-E29W2	W_2079	0.1	U	mg/L	0.1			0.00140	0.01	10	0.014	05/29/03	19:46
lcsw-E29W2	Y_3710	0.05	U	mg/L	0.05			-0.00017	0.005	10	-0.0017	05/29/03	19:46
lcsw-E29W2	Zn2062	5.15		mg/L	0.05	5	103.0%	0.51521	0.005	10	5.1521	05/29/03	19:46
lcsw-E29W2	Zr3496	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	19:46
lcsw-E29W3	Ag3280	0.460		mg/L	0.05	0.5	92.1%	0.04603	0.005	10	0.4603	05/29/03	22:23
lcsw-E29W3	Al3082	19.6		mg/L	0.5	20	97.9%	1.95769	0.05	10	19.5769	05/29/03	22:23
lcsw-E29W3	As1890	20.2		mg/L	0.05	20	101.0%	2.01939	0.005	10	20.1939	05/29/03	22:23
lcsw-E29W3	B_2496	0.25	U	mg/L	0.25			-0.00107	0.025	10	-0.0107	05/29/03	22:23
lcsw-E29W3	Ba4934	20.5		mg/L	0.05	20	102.7%	2.05427	0.005	10	20.5427	05/29/03	22:23
lcsw-E29W3	Be3130	0.488		mg/L	0.05	0.5	97.7%	0.04883	0.005	10	0.4883	05/29/03	22:23
lcsw-E29W3	Bi2230	0.15	U	mg/L	0.15			-0.00166	0.015	10	-0.0166	05/29/03	22:23
lcsw-E29W3	Ca3179	197		mg/L	1.5	200	98.6%	19.72015	0.15	10	197.2015	05/29/03	22:23
lcsw-E29W3	Cd2265	0.518		mg/L	0.05	0.5	103.6%	0.05179	0.005	10	0.5179	05/29/03	22:23
lcsw-E29W3	Co2286	5.10		mg/L	0.05	5	102.1%	0.51040	0.005	10	5.104	05/29/03	22:23
lcsw-E29W3	Cr2677	1.94		mg/L	0.05	2	97.0%	0.19397	0.005	10	1.9397	05/29/03	22:23
lcsw-E29W3	Cu3247	2.53		mg/L	0.05	2.5	101.1%	0.25284	0.005	10	2.5284	05/29/03	22:23
lcsw-E29W3	Fe2714	11.1		mg/L	0.6	10	110.7%	1.10673	0.06	10	11.0673	05/29/03	22:23
lcsw-E29W3	K_7664	169		mg/L	1	200	84.6%	16.92204	0.1	10	169.2204	05/29/03	22:23
lcsw-E29W3	La3988	0.05	U	mg/L	0.05			0.00112	0.005	10	0.0112	05/29/03	22:23
lcsw-E29W3	Li6707	0.05	U	mg/L	0.05			0.00021	0.005	10	0.0021	05/29/03	22:23
lcsw-E29W3	Mg2790	200		mg/L	0.5	200	100.1%	20.01527	0.05	10	200.1527	05/29/03	22:23
lcsw-E29W3	Mn2576	5.10		mg/L	0.05	5	102.0%	0.50977	0.005	10	5.0977	05/29/03	22:23
lcsw-E29W3	Mo2020	0.05	U	mg/L	0.05			-0.00145	0.005	10	-0.0145	05/29/03	22:23
lcsw-E29W3	Na3302	179		mg/L	1	200	89.5%	17.89487	0.1	10	178.9487	05/29/03	22:23
lcsw-E29W3	Ni2316	4.84		mg/L	0.05	5	96.8%	0.48375	0.005	10	4.8375	05/29/03	22:23
lcsw-E29W3	P_1782	0.25	U	mg/L	0.25			0.00354	0.025	10	0.0354	05/29/03	22:23
lcsw-E29W3	Pb220	5.17		mg/L	0.05	5	103.4%	0.51681	0.005	10	5.1681	05/29/03	22:23
lcsw-E29W3	Pd3404	0.1	U	mg/L	0.1			0.00403	0.01	10	0.0403	05/29/03	22:23
lcsw-E29W3	S_1820	0.25	U	mg/L	0.25			-0.00364	0.025	10	-0.0364	05/29/03	22:23
lcsw-E29W3	Sb2068	4.94		mg/L	0.1	5	98.7%	0.49370	0.01	10	4.937	05/29/03	22:23
lcsw-E29W3	Se196	20.6		mg/L	0.05	20	103.1%	2.06243	0.005	10	20.6243	05/29/03	22:23
lcsw-E29W3	Si2881	41.6		mg/L	0.25	40	103.9%	4.15594	0.025	10	41.5594	05/29/03	22:23
lcsw-E29W3	Sn1899	0.05	U	mg/L	0.05			0.00241	0.005	10	0.0241	05/29/03	22:23
lcsw-E29W3	Sr4215	0.050	U	mg/L	0.05			0.00062	0.005	10	0.0062	05/29/03	22:23
lcsw-E29W3	Th2837	0.1	U	mg/L	0.1			-0.01674	0.01	10	-0.1674	05/29/03	22:23
lcsw-E29W3	Ti3349	0.05	U	mg/L	0.05			-0.00027	0.005	10	-0.0027	05/29/03	22:23
lcsw-E29W3	Tl1908	21.0		mg/L	0.1	20	104.8%	2.09575	0.01	10	20.9575	05/29/03	22:23
lcsw-E29W3	V_2924	5.06		mg/L	0.05	5	101.3%	0.50629	0.005	10	5.0629	05/29/03	22:23

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
lcsw-E29W3	W_2079	0.1	U	mg/L	0.1			0.00106	0.01	10	0.0106	05/29/03	22:23
lcsw-E29W3	Y_3710	0.05	U	mg/L	0.05			-0.00026	0.005	10	-0.0026	05/29/03	22:23
lcsw-E29W3	Zn2062	5.14		mg/L	0.05	5	102.8%	0.51382	0.005	10	5.1382	05/29/03	22:23
lcsw-E29W3	Zr3496	0.05	U	mg/L	0.05			-0.00029	0.005	10	-0.0029	05/29/03	22:23
pbw-E29W2	Ag3280	0.05	U	mg/L	0.05			0.00202	0.005	10	0.0202	05/29/03	19:42
pbw-E29W2	Al3082	0.5	U	mg/L	0.5			0.01316	0.05	10	0.1316	05/29/03	19:42
pbw-E29W2	As1890	0.05	U	mg/L	0.05			0.00325	0.005	10	0.0325	05/29/03	19:42
pbw-E29W2	B_2496	0.25	U	mg/L	0.25			0.00269	0.025	10	0.0269	05/29/03	19:42
pbw-E29W2	Ba4934	0.05	U	mg/L	0.05			0.00018	0.005	10	0.0018	05/29/03	19:42
pbw-E29W2	Be3130	0.05	U	mg/L	0.05			0.00000	0.005	10	0	05/29/03	19:42
pbw-E29W2	Bi2230	0.15	U	mg/L	0.15			0.00615	0.015	10	0.0615	05/29/03	19:42
pbw-E29W2	Ca3179	1.5	U	mg/L	1.5			0.01274	0.15	10	0.1274	05/29/03	19:42
pbw-E29W2	Cd2265	0.05	U	mg/L	0.05			0.00037	0.005	10	0.0037	05/29/03	19:42
pbw-E29W2	Co2286	0.05	U	mg/L	0.05			0.00082	0.005	10	0.0082	05/29/03	19:42
pbw-E29W2	Cr2677	0.05	U	mg/L	0.05			0.00023	0.005	10	0.0023	05/29/03	19:42
pbw-E29W2	Cu3247	0.05	U	mg/L	0.05			0.00091	0.005	10	0.0091	05/29/03	19:42
pbw-E29W2	Fe2714	0.6	U	mg/L	0.6			0.04452	0.06	10	0.4452	05/29/03	19:42
pbw-E29W2	K_7664	1	U	mg/L	1			0.04478	0.1	10	0.4478	05/29/03	19:42
pbw-E29W2	La3988	0.05	U	mg/L	0.05			0.00210	0.005	10	0.021	05/29/03	19:42
pbw-E29W2	Li6707	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	19:42
pbw-E29W2	Mg2790	0.5	U	mg/L	0.5			0.01854	0.05	10	0.1854	05/29/03	19:42
pbw-E29W2	Mn2576	0.05	U	mg/L	0.05			0.00016	0.005	10	0.0016	05/29/03	19:42
pbw-E29W2	Mo2020	0.05	U	mg/L	0.05			0.00043	0.005	10	0.0043	05/29/03	19:42
pbw-E29W2	Na5889	1	U	mg/L	1			0.00815	0.1	10	0.0815	05/29/03	19:42
pbw-E29W2	Ni2316	0.05	U	mg/L	0.05			-0.00013	0.005	10	-0.0013	05/29/03	19:42
pbw-E29W2	P_1782	0.25	U	mg/L	0.25			-0.00722	0.025	10	-0.0722	05/29/03	19:42
pbw-E29W2	Pb220	0.05	U	mg/L	0.05			-0.00111	0.005	10	-0.0111	05/29/03	19:42
pbw-E29W2	Pd3404	0.1	U	mg/L	0.1			0.00816	0.01	10	0.0816	05/29/03	19:42
pbw-E29W2	S_1820	0.25	U	mg/L	0.25			-0.00325	0.025	10	-0.0325	05/29/03	19:42
pbw-E29W2	Sb2068	0.1	U	mg/L	0.1			-0.00155	0.01	10	-0.0155	05/29/03	19:42
pbw-E29W2	Se196	0.05	U	mg/L	0.05			-0.00053	0.005	10	-0.0053	05/29/03	19:42
pbw-E29W2	Si2881	0.25	U	mg/L	0.25			0.01264	0.025	10	0.1264	05/29/03	19:42
pbw-E29W2	Sn1899	0.05	U	mg/L	0.05			0.00229	0.005	10	0.0229	05/29/03	19:42
pbw-E29W2	Sr4215	0.05	U	mg/L	0.05			0.00031	0.005	10	0.0031	05/29/03	19:42
pbw-E29W2	Th2837	0.1	U	mg/L	0.1			-0.00182	0.01	10	-0.0182	05/29/03	19:42
pbw-E29W2	Ti3349	0.05	U	mg/L	0.05			-0.00012	0.005	10	-0.0012	05/29/03	19:42
pbw-E29W2	Tl1908	0.1	U	mg/L	0.1			-0.00191	0.01	10	-0.0191	05/29/03	19:42
pbw-E29W2	V_2924	0.05	U	mg/L	0.05			-0.00040	0.005	10	-0.004	05/29/03	19:42
pbw-E29W2	W_2079	0.1	U	mg/L	0.1			0.00256	0.01	10	0.0256	05/29/03	19:42
pbw-E29W2	Y_3710	0.05	U	mg/L	0.05			-0.00001	0.005	10	-0.0001	05/29/03	19:42

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system id	elem	result	qual	units	rl	tv	rec	@instr ug/ml	rl	df	mg/L	date	time
pbw-E29W2	Zn2062	0.05	U	mg/L	0.05			0.00028	0.005	10	0.0028	05/29/03	19:42
pbw-E29W2	Zr3496	0.05	U	mg/L	0.05			0.00017	0.005	10	0.0017	05/29/03	19:42
pbw-E29W3	Ag3280	0.05	U	mg/L	0.05			0.00042	0.005	10	0.0042	05/29/03	22:19
pbw-E29W3	Al3082	0.5	U	mg/L	0.5			0.01087	0.05	10	0.1087	05/29/03	22:19
pbw-E29W3	As1890	0.05	U	mg/L	0.05			0.00123	0.005	10	0.0123	05/29/03	22:19
pbw-E29W3	B_2496	0.25	U	mg/L	0.25			0.00051	0.025	10	0.0051	05/29/03	22:19
pbw-E29W3	Ba4934	0.05	U	mg/L	0.05			0.00013	0.005	10	0.0013	05/29/03	22:19
pbw-E29W3	Be3130	0.05	U	mg/L	0.05			0.00003	0.005	10	0.0003	05/29/03	22:19
pbw-E29W3	Bi2230	0.15	U	mg/L	0.15			0.00033	0.015	10	0.0033	05/29/03	22:19
pbw-E29W3	Ca3179	1.5	U	mg/L	1.5			0.00903	0.15	10	0.0903	05/29/03	22:19
pbw-E29W3	Cd2265	0.05	U	mg/L	0.05			0.00022	0.005	10	0.0022	05/29/03	22:19
pbw-E29W3	Co2286	0.05	U	mg/L	0.05			0.00051	0.005	10	0.0051	05/29/03	22:19
pbw-E29W3	Cr2677	0.05	U	mg/L	0.05			0.00090	0.005	10	0.009	05/29/03	22:19
pbw-E29W3	Cu3247	0.05	U	mg/L	0.05			0.00120	0.005	10	0.012	05/29/03	22:19
pbw-E29W3	Fe2714	0.6	U	mg/L	0.6			0.05259	0.06	10	0.5259	05/29/03	22:19
pbw-E29W3	K_7664	1	U	mg/L	1			0.06028	0.1	10	0.6028	05/29/03	22:19
pbw-E29W3	La3988	0.05	U	mg/L	0.05			0.00082	0.005	10	0.0082	05/29/03	22:19
pbw-E29W3	Li6707	0.05	U	mg/L	0.05			0.00021	0.005	10	0.0021	05/29/03	22:19
pbw-E29W3	Mg2790	0.5	U	mg/L	0.5			0.00601	0.05	10	0.0601	05/29/03	22:19
pbw-E29W3	Mn2576	0.05	U	mg/L	0.05			0.00015	0.005	10	0.0015	05/29/03	22:19
pbw-E29W3	Mo2020	0.05	U	mg/L	0.05			0.00028	0.005	10	0.0028	05/29/03	22:19
pbw-E29W3	Na5889	1	U	mg/L	1			0.01452	0.1	10	0.1452	05/29/03	22:19
pbw-E29W3	Ni2316	0.05	U	mg/L	0.05			0.00076	0.005	10	0.0076	05/29/03	22:19
pbw-E29W3	P_1782	0.25	U	mg/L	0.25			-0.01255	0.025	10	-0.1255	05/29/03	22:19
pbw-E29W3	Pb220	0.05	U	mg/L	0.05			0.00192	0.005	10	0.0192	05/29/03	22:19
pbw-E29W3	Pd3404	0.1	U	mg/L	0.1			0.00963	0.01	10	0.0963	05/29/03	22:19
pbw-E29W3	S_1820	0.25	U	mg/L	0.25			0.00388	0.025	10	0.0388	05/29/03	22:19
pbw-E29W3	Sb2068	0.1	U	mg/L	0.1			0.00230	0.01	10	0.023	05/29/03	22:19
pbw-E29W3	Se196	0.05	U	mg/L	0.05			-0.00095	0.005	10	-0.0095	05/29/03	22:19
pbw-E29W3	Si2881	0.25	U	mg/L	0.25			0.01164	0.025	10	0.1164	05/29/03	22:19
pbw-E29W3	Sn1899	0.05	U	mg/L	0.05			0.00087	0.005	10	0.0087	05/29/03	22:19
pbw-E29W3	Sr4215	0.05	U	mg/L	0.05			0.00010	0.005	10	0.001	05/29/03	22:19
pbw-E29W3	Th2837	0.1	U	mg/L	0.1			0.00100	0.01	10	0.01	05/29/03	22:19
pbw-E29W3	Ti3349	0.05	U	mg/L	0.05			0.00007	0.005	10	0.0007	05/29/03	22:19
pbw-E29W3	Tl1908	0.1	U	mg/L	0.1			-0.00082	0.01	10	-0.0082	05/29/03	22:19
pbw-E29W3	V_2924	0.05	U	mg/L	0.05			0.00026	0.005	10	0.0026	05/29/03	22:19
pbw-E29W3	W_2079	0.1	U	mg/L	0.1			0.00420	0.01	10	0.042	05/29/03	22:19
pbw-E29W3	Y_3710	0.05	U	mg/L	0.05			0.00005	0.005	10	0.0005	05/29/03	22:19
pbw-E29W3	Zn2062	0.05	U	mg/L	0.05			0.00036	0.005	10	0.0036	05/29/03	22:19
pbw-E29W3	Zr3496	0.05	U	mg/L	0.05			0.00029	0.005	10	0.0029	05/29/03	22:19

010203

ICP ANALYSIS

PROJ. NO.	PROJECT	TO#	DATE	MATRIX	LOGBK PG
06002.01.071	Div 20	030520B13	5-29-03	Water	54 035
06002.01.071	Div 20		5-29-03	Water	54 036
06002.01.071	Div 20		5-29-03	Water	54 037

INSTRUMENT: Trace #2 FILENAME: B052013

INSTRUMENT DL:

Standardization Rpt. 05/29/03 03:53:29 PM page 1

Method: DAILY2 Standard: blk
Run Time: 05/29/03 15:49:00

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Avge	-.0000	.0003	-.0000	.0000	-.0000	-.0000	-.0000
SDev	.0000	.0000	.0001	.0000	.0000	.0000	.0000
%RSD	200.2	1.570	117.8	207.1	70.13	13.58	357.7
#1	-.0000	.0003	-.0001	.0000	-.0000	-.0000	.0000
#2	.0000	.0003	-.0000	-.0000	-.0000	-.0000	-.0000

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Avge	.0001	-.0000	-.0000	-.0000	.0003	.0000	.0002
SDev	.0000	.0000	.0000	.0001	.0000	.0000	.0000
%RSD	14.67	198.7	64.26	302.8	8.369	54.68	4.973
#1	.0001	.0000	-.0000	.0000	.0004	.0000	.0002
#2	.0001	-.0000	-.0000	-.0001	.0003	.0000	.0002

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Avge	.0000	.0000	-.0000	.0000	-.0000	-.0002	-.0086
SDev	.0000	.0000	.0000	.0000	.0000	.0000	.0003
%RSD	29.03	20.96	201.2	172.5	11.12	7.378	2.897
#1	.0000	.0000	-.0000	.0000	-.0000	-.0002	-.0088
#2	.0000	.0000	.0000	-.0000	-.0000	-.0002	-.0084

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Avge	.0000	.0000	.0002	-.0000	.0000	.0001	-.0014
SDev	.0001	.0000	.0003	.0001	.0000	.0000	.0001
%RSD	888.3	23.57	186.3	413.9	34.21	8.363	5.847
#1	.0001	.0000	-.0001	.0001	.0000	.0001	-.0013
#2	-.0000	.0000	.0004	-.0001	.0001	.0001	-.0014

Elem	Sc3613	1960/1	1960/2	Si2881	Sn1899	Sr4215	Th2837
Avge	101.0	-.0003	.0001	.0018	-.0000	.0000	.0000
SDev	.8	.0001	.0001	.0000	.0000	.0000	.0000
%RSD	.7747	27.93	63.61	2.406	472.4	105.7	87.83
#1	100.5	-.0003	.0002	.0018	.0000	.0000	.0001
#2	101.6	-.0002	.0001	.0018	-.0000	.0000	.0000

Elem	Ti3349	Tl1908	U_4090	V_2924	W_2079	Y_3710	Zn2062
Avge	-.0001	-.0003	-.0002	-.0000	.0002	-.0000	.0000
SDev	.0001	.0000	.0000	.0000	.0001	.0000	.0000
%RSD	64.90	6.173	28.38	36.71	33.65	365.8	10.87
#1	-.0001	-.0003	-.0002	-.0000	.0002	.0000	.0000
#2	-.0002	-.0003	-.0001	-.0000	.0002	-.0000	.0000

Elem	Zr3496
Avge	.0001
SDev	.0001
%RSD	101.4
#1	.0003
#2	.0000

6/7/03

5-29-03

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1010016	10000	--	--	--	--	--
SDev	7844.643	.0000000	--	--	--	--	--
%RSD	.7766850	.0000000	--	--	--	--	--
#1	1004469	10000	--	--	--	--	--
#2	1015563	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 03:57:48 PM page 1

Method: DAILY2 Standard: clp_std4
Run Time: 05/29/03 15:53:41

Elem	Ag3280	As1890	2203/1	2203/2	Sb2068	1960/1	1960/2
Avge	.0817	.1439	.3756	.3184	.2162	.3279	.3276
SDev	.0000	.0003	.0032	.0001	.0004	.0040	.0022
%RSD	.0394	.2372	.8427	.0485	.1831	1.224	.6681
#1	.0817	.1437	.3734	.3183	.2159	.3250	.3260
#2	.0816	.1441	.3779	.3186	.2165	.3307	.3291

Elem	T11908
Avge	.2823
SDev	.0004
%RSD	.1517
#1	.2820
#2	.2826

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1040139	10000	--	--	--	--	--
SDev	17399.07	.0000000	--	--	--	--	--
%RSD	1.672764	.0000000	--	--	--	--	--
#1	1027836	10000	--	--	--	--	--
#2	1052442	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 04:01:24 PM page 1

Method: DAILY2 Standard: clp_std1
Run Time: 05/29/03 15:58:00

Elem	Al3082	Ca3179	Fe2714	K_7664	Li6707	Mg2790	Na3302
Avge	.1162	.2070	.1088	.1739	2.900	.0931	.0094
SDev	.0001	.0008	.0002	.0007	.002	.0000	.0001
%RSD	.0601	.3674	.1586	.3775	.0617	.0065	.5851
#1	.1162	.2075	.1089	.1734	2.899	.0931	.0093
#2	.1163	.2064	.1087	.1744	2.902	.0931	.0094

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	986876	10000	--	--	--	--	--
SDev	7383.609	.0000000	--	--	--	--	--
%RSD	.7481800	.0000000	--	--	--	--	--
#1	981655	10000	--	--	--	--	--
#2	992097	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 04:05:00 PM page 1

Method: DAILY2 Standard: clp_std5
Run Time: 05/29/03 16:01:36

Elem	B_2496	Bi2230	Mo2020	P_1782	Si2881	Sn1899	Sr4215
Avge	.1925	.0413	.4508	.0214	.1744	.2045	2.453
SDev	.0004	.0001	.0021	.0001	.0002	.0003	.001
%RSD	.2230	.1200	.4669	.5284	.1030	.1202	.0335
#1	.1922	.0412	.4493	.0214	.1745	.2043	2.453
#2	.1928	.0413	.4523	.0215	.1743	.2046	2.454

Elem	Ti3349
Avge	2.791
SDev	.002
%RSD	.0787
#1	2.790
#2	2.793

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	991944	10000	--	--	--	--	--
SDev	19593.93	.0000000	--	--	--	--	--
%RSD	1.975306	.0000000	--	--	--	--	--
#1	1005799	10000	--	--	--	--	--
#2	978089	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 04:08:14 PM page 1

Method: DAILY2 Standard: clp_std2
Run Time: 05/29/03 16:05:11

Elem	Ba4934	Be3130	Cr2677	Cu3247	Ni2316
Avge	1.089	1.366	.4662	.3321	.4236
SDev	.003	.004	.0003	.0011	.0000
%RSD	.2629	.2861	.0600	.3345	.0034
#1	1.091	1.364	.4660	.3329	.4236
#2	1.087	1.369	.4664	.3313	.4236

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1022704	10000	--	--	--	--	--
SDev	10108.09	.0000000	--	--	--	--	--
%RSD	.9883697	.0000000	--	--	--	--	--
#1	1029851	10000	--	--	--	--	--
#2	1015556	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 04:11:50 PM page 1

Method: DAILY2 Standard: clp_std3
Run Time: 05/29/03 16:08:26

Elem	Cd2265	Co2286	Mn2576	V 2924	Zn2062
Avge	1.185	.2619	.9793	.2060	.3769
SDev	.001	.0000	.0006	.0002	.0006
%RSD	.1021	.0114	.0624	.0828	.1474
#1	1.185	.2619	.9789	.2061	.3765
#2	1.184	.2619	.9798	.2059	.3773

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	986561	10000	--	--	--	--	--
SDev	4191.729	.0000000	--	--	--	--	--
%RSD	.4248829	.0000000	--	--	--	--	--
#1	989525	10000	--	--	--	--	--
#2	983597	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 04:15:48 PM page 1

Method: DAILY2 Standard: clp_std6
Run Time: 05/29/03 16:12:02

Elem	La3988	Na5889	Pd3404	S 1820	Th2837	U 4090	W 2079
Avge	.4810	.0473	.2150	.0412	.1230	.0765	.1816
SDev	.0017	.0005	.0006	.0001	.0001	.0005	.0007
%RSD	.3508	1.138	.2775	.1271	.0905	.6419	.3781
#1	.4822	.0477	.2155	.0411	.1229	.0768	.1812
#2	.4798	.0469	.2146	.0412	.1231	.0761	.1821

Elem	Y 3710	Zr3496
Avge	.8145	2.019
SDev	.0015	.008
%RSD	.1908	.3964
#1	.8156	2.025
#2	.8134	2.013

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1018254	10000	--	--	--	--	--
SDev	17564.53	.0000000	--	--	--	--	--
%RSD	1.724966	.0000000	--	--	--	--	--
#1	1030674	10000	--	--	--	--	--
#2	1005834	10000	--	--	--	--	--

Standardization Report 05/29/03 04:15:48 PM page 1

Method: DAILY2 Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag3280	328.068	clp_std4	blk	24.4854	.000464	05/29/03 04:12:02
Al3082	308.215	clp_std1	blk	431.443	-.141596	05/29/03 04:12:02
As1890	189.042	clp_std4	blk	69.4672	.003282	05/29/03 04:12:02
B_2496	249.678	clp_std5	blk	51.9597	-.000441	05/29/03 04:12:02
Ba4934	493.409	clp_std2	blk	9.18240	.000181	05/29/03 04:12:02
Be3130	313.042	clp_std2	blk	3.65908	.000125	05/29/03 04:12:02
Bi2230	223.061	clp_std5	blk	120.128	.000235	05/29/03 04:12:02
Ca3179	317.933	clp_std1	blk	241.724	-.020714	05/29/03 04:12:02
Cd2265	226.502	clp_std3	blk	8.43913	.000041	05/29/03 04:12:02
Co2286	228.616	clp_std3	blk	38.1791	.000758	05/29/03 04:12:02
Cr2677	267.716	clp_std2	blk	21.4478	.000430	05/29/03 04:12:02
Cu3247	324.753	clp_std2	blk	30.1427	-.010285	05/29/03 04:12:02
Fe2714	271.441	clp_std1	blk	459.957	-.005226	05/29/03 04:12:02
K_7664	766.491	clp_std1	blk	287.843	-.052570	05/29/03 04:12:02
La3988	398.853	clp_std6	blk	20.8106	-.000206	05/29/03 04:12:02
Li6707	670.784	clp_std1	blk	3.44782	-.000084	05/29/03 04:12:02
Mg2790	279.078	clp_std1	blk	268.343	.001874	05/29/03 04:12:02
Mn2576	257.610	clp_std3	blk	10.2119	-.000092	05/29/03 04:12:02
Mo2020	202.030	clp_std5	blk	22.1836	.000901	05/29/03 04:12:02
Na3302	330.232	clp_std1	blk	5231.56	1.03305	05/29/03 04:12:02
Na5889	588.991	clp_std6	blk	17.9772	.154895	05/29/03 04:12:02
Ni2316	231.604	clp_std2	blk	23.6093	-.000194	05/29/03 04:12:02
P_1782	178.287	clp_std5	blk	467.278	-.014355	05/29/03 04:12:02
2203/1	220.351	clp_std4	blk	26.6333	-.004346	05/29/03 04:12:02
2203/2	220.352	clp_std4	blk	31.3988	.001071	05/29/03 04:12:02
Pd3404	340.458	clp_std6	blk	47.7552	-.002007	05/29/03 04:12:02
S_1820	182.040	clp_std6	blk	243.336	-.024703	05/29/03 04:12:02
Sb2068	206.838	clp_std4	blk	45.9573	.062664	05/29/03 04:12:02
Sc3613	361.384	blk	dark	.990054	.000000	05/29/03 04:12:02
1960/1	196.021	clp_std4	blk	30.4767	.008564	05/29/03 04:12:02
1960/2	196.022	clp_std4	blk	30.5418	-.003607	05/29/03 04:12:02
Si2881	288.158	clp_std5	blk	57.7198	-.102827	05/29/03 04:12:02
Pb220	220.353	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED
Se196	196.026	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED
Sn1899	189.989	clp_std5	blk	48.9367	.000167	05/29/03 04:12:02
Sr4215	421.552	clp_std5	blk	4.07609	-.000032	05/29/03 04:12:02
Th2837	283.730	clp_std6	blk	84.8919	-.002867	05/29/03 04:12:02
Ti3349	334.941	clp_std5	blk	3.58224	.000409	05/29/03 04:12:02
Tl1908	190.864	clp_std4	blk	35.3799	.011049	05/29/03 04:12:02
U_4090	409.014	clp_std6	blk	137.947	.023791	05/29/03 04:12:02
V_2924	292.402	clp_std3	blk	48.5392	.001632	05/29/03 04:12:02
W_2079	207.914	clp_std6	blk	27.5479	-.005434	05/29/03 04:12:02
Y_3710	371.030	clp_std6	blk	12.2756	.000054	05/29/03 04:12:02
Zn2062	206.200	clp_std3	blk	26.5350	-.001104	05/29/03 04:12:02
Zr3496	349.621	clp_std6	blk	5.41449	-.000810	05/29/03 04:12:02

Analysis Report QC Standard 05/29/03 04:20:30 PM page 1

Method: DAILY2 Sample Name: icv/ccv Operator:
Run Time: 05/29/03 16:16:00
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9955	9.817	4.989	4.819	9.757	.9816	5.070
SDev	.0001	.050	.014	.002	.040	.0052	.036
%RSD	.0104	.5105	.2799	.0454	.4074	.5264	.7187
#1	.9956	9.853	4.979	4.818	9.785	.9780	5.095
#2	.9955	9.782	4.999	4.821	9.729	.9853	5.044
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.000	10.00	5.000	5.000	10.00	1.000	5.000
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.16	1.026	5.023	1.934	1.937	10.42	18.23
SDev	.19	.005	.021	.008	.013	.04	.25
%RSD	.9519	.4453	.4126	.4106	.6684	.3869	1.385
#1	20.03	1.022	5.008	1.928	1.946	10.40	18.41
#2	20.30	1.029	5.038	1.939	1.928	10.45	18.05
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00	1.000	5.000	2.000	2.000	10.00	20.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.926	4.778	20.04	1.017	5.116	27.79	Q40.32
SDev	.006	.050	.07	.004	.031	.42	.41
%RSD	.1306	1.056	.3302	.3642	.5973	1.525	1.014
#1	4.931	4.813	19.99	1.015	5.095	28.09	Q40.61
#2	4.921	4.742	20.08	1.020	5.138	27.49	Q40.03
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	5.000	5.000	20.00	1.000	5.000	30.00	30.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.842	5.239	5.110	5.068	.9943	1.020	.9845
SDev	.018	.021	.085	.018	.0067	.006	.0010
%RSD	.3689	.4089	1.655	.3546	.6712	.5622	.0996
#1	4.829	5.254	5.050	5.055	.9990	1.024	.9838
#2	4.855	5.224	5.170	5.081	.9896	1.016	.9852
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	5.000	5.000			1.000	1.000	1.000
Range	10.00	10.00			10.00	10.00	10.00

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.89	5.256	5.218	5.060	5.082	5.231	4.955
SDev	2.18	.065	.002	.005	.040	.020	.030
%RSD	2.270	1.227	.0440	.1078	.7907	.3818	.6003
#1	97.43	5.211	5.219	5.056	5.054	5.216	4.934
#2	94.35	5.302	5.216	5.064	5.110	5.245	4.976
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value				5.000	5.000	5.000	5.000
Range				10.00	10.00	10.00	10.00

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.079	.9833	4.849	5.239	.9663	4.987	Q1.324
SDev	.013	.0056	.006	.030	.0498	.012	.008
%RSD	.2576	.5726	.1161	.5819	5.154	.2313	.6385
#1	5.088	.9793	4.845	5.217	1.001	4.979	Q1.318
#2	5.070	.9872	4.853	5.260	.9310	4.995	Q1.330
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	5.000	1.000	5.000	5.000	1.000	5.000	1.000
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.868	1.019	4.828
SDev	.001	.010	.012
%RSD	.0146	.9460	.2471
#1	4.868	1.012	4.836
#2	4.869	1.025	4.819
Errors	QC Pass	QC Pass	QC Pass
Value	5.000	1.000	5.000
Range	10.00	10.00	10.00

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	968448	10000	--	--	--	--	--
SDev	22008.70	.0000000	--	--	--	--	--
%RSD	2.272575	.0000000	--	--	--	--	--
#1	984010	10000	--	--	--	--	--
#2	952885	10000	--	--	--	--	--

Analysis Report Blank Sample 05/29/03 04:27:02 PM page 1

Method: DAILY2 Sample Name: ICB/CCB Operator:
Run Time: 05/29/03 16:22:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	-.0046	-.0005	.0093	.0000	.0001	-.0010
SDev	.0001	.0009	.0018	.0008	.0001	.0000	.0010
%RSD	6.569	19.14	346.0	8.820	317.9	5.743	103.6
#1	-.0009	-.0053	.0007	.0099	-.0000	.0001	-.0017
#2	-.0010	-.0040	-.0017	.0087	.0001	.0001	-.0003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H.1347	.0000	-.0005	.0004	.0003	-.0060	.0005
SDev	.1684	.0001	.0004	.0008	.0006	.0123	.0129
%RSD	125.0	703.8	94.39	180.2	248.2	205.5	2858.
#1	.0156	.0000	-.0008	-.0001	-.0002	.0027	.0096
#2	H.2537	-.0000	-.0002	.0010	.0007	-.0147	-.0087
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	.0002	-.0069	-.0000	.0046	H.1060	.0005
SDev	.0002	.0001	.0061	.0001	.0006	.2795	.0002
%RSD	21.23	25.61	89.29	977.8	12.64	263.6	42.19
#1	-.0011	.0002	-.0112	-.0001	H.0050	H.3037	.0006
#2	-.0008	.0002	-.0025	.0001	.0042	L-.0916	.0004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0034	-.0009	.0014	-.0018	.0014	.0000
SDev	.0009	.0060	.0037	.0003	.0028	.0002	.0039
%RSD	132.0	175.8	410.2	24.60	151.6	14.60	13290.
#1	-.0014	.0076	.0017	.0011	.0001	.0016	-.0027
#2	-.0000	-.0008	-.0035	.0016	-.0038	.0013	.0028
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.19	-.0027	.0023	-.0003	.0006	.0006	.0016
SDev	.15	.0031	.0028	.0032	.0010	.0008	.0016
%RSD	.1503	114.6	122.6	955.9	155.7	132.4	96.38
#1	99.09	-.0005	.0003	-.0026	.0013	.0000	.0005
#2	99.30	-.0049	.0043	.0020	-.0001	.0012	.0028
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0003	.0000	.0002	-.0420	-.0007	.0015
SDev	.0001	.0019	.0002	.0002	.0140	.0008	.0024
%RSD	363.0	576.6	906.5	118.1	33.41	124.1	160.9
#1	-.0000	-.0010	-.0001	.0003	-.0519	-.0012	-.0002
#2	.0001	.0017	.0001	.0000	-.0321	-.0001	.0032
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	-.0005	-.0003
SDev	.0001	.0000	.0004
%RSD	110.9	.1952	112.8
#1	.0000	-.0005	-.0006
#2	.0001	-.0005	-.0001
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1001814	10000	--	--	--	--	--
SDev	1505.430	.0000000	--	--	--	--	--
%RSD	.1502705	.0000000	--	--	--	--	--
#1	1000749	10000	--	--	--	--	--
#2	1002878	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: pbw-E29W1 pg54-035 Operator:
Run Time: 05/29/03 16:27:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	.0053	-.0009	.0058	.0006	.0001	-.0007
SDev	.0005	.0052	.0014	.0006	.0001	.0000	.0038
%RSD	86.40	98.53	157.0	10.90	24.95	17.66	538.5
#1	-.0009	.0016	.0001	.0054	.0005	.0001	.0020
#2	-.0002	.0089	-.0019	.0063	.0007	.0001	-.0034
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H.1109	-.0001	.0022	.0003	.0009	.0021	-.0010
SDev	.0970	.0001	.0003	.0015	.0008	.0016	.0115
%RSD	87.48	139.4	14.20	432.1	81.47	76.09	1201.
#1	.0423	-.0001	.0020	-.0007	.0004	.0032	-.0091
#2	H.1795	-.0000	.0024	.0014	.0015	.0010	.0072
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0002	-.0018	.0002	.0020	.0127	.0082
SDev	.0008	.0000	.0058	.0002	.0002	.0497	.0018
%RSD	168.8	.8100	315.6	109.0	11.85	390.1	22.32
#1	-.0010	.0002	-.0059	.0000	.0018	-.0224	.0095
#2	.0001	.0002	.0023	.0003	.0021	.0479	.0069
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	-.0030	-.0000	.0007	-.0020	.0072	-.0006
SDev	.0005	.0095	.0012	.0007	.0010	.0041	.0021
%RSD	79.35	318.2	4362.	98.15	50.53	57.48	355.1
#1	-.0003	-.0097	-.0009	.0012	-.0027	H.0101	-.0020
#2	-.0009	.0037	.0008	.0002	-.0013	.0043	.0009
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.15	.0008	.0015	H.0102	.0005	.0013	-.0003
SDev	1.21	.0020	.0036	.0015	.0001	.0017	.0007
%RSD	1.228	246.0	241.2	15.20	15.77	134.3	295.9
#1	99.00	.0022	-.0010	.0091	.0005	.0001	.0003
#2	97.30	-.0006	.0040	H.0113	.0004	.0025	-.0008
Errors	NOCHECK	NOCHECK	NOCHECK	LC High	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	-.0001	-.0000	-.0005	-.0198	-.0008	.0011
SDev	.0001	.0012	.0003	.0027	.0222	.0006	.0002
%RSD	6.319	806.5	558.7	576.8	111.8	70.91	15.67
#1	.0009	-.0010	-.0002	-.0024	-.0355	-.0013	.0010
#2	.0010	.0007	.0001	.0014	-.0042	-.0004	.0012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0014	-.0002
SDev	.0002	.0010	.0011
%RSD	1841.	75.70	719.6
#1	-.0001	.0006	-.0009
#2	.0002	.0021	.0006
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	991296	10000	--	--	--	--	--
SDev	12162.94	.0000000	--	--	--	--	--
%RSD	1.226973	.0000000	--	--	--	--	--
#1	999897	10000	--	--	--	--	--
#2	982696	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: lcsw-E29W1 Operator:
Run Time: 05/29/03 16:31:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0508	1.911	2.005	.0065	1.994	.0495	.0030
SDev	.0001	.001	.003	.0014	.001	.0000	.0001
%RSD	.2955	.0545	.1273	21.17	.0568	.0435	2.616
#1	.0509	1.911	2.003	.0055	1.993	.0495	.0030
#2	.0507	1.912	2.007	.0074	1.995	.0495	.0029

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.39	.0512	.5038	.1973	.2434	1.088	16.68
SDev	.01	.0001	.0005	.0003	.0007	.003	.03
%RSD	.0628	.2423	.0934	.1267	.2742	.2301	.1843
#1	20.40	.0511	.5042	.1975	.2429	1.090	16.65
#2	20.38	.0513	.5035	.1971	.2438	1.087	16.70

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0003	20.49	.5077	.0002	17.67	25.78
SDev	.0001	.0001	.01	.0001	.0007	.09	.03
%RSD	28.37	20.49	.0671	.0145	306.9	.5357	.1255
#1	-.0006	.0002	20.50	.5076	-.0003	17.60	25.76
#2	-.0004	.0003	20.48	.5077	.0007	17.73	25.80

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4904	-.0018	.5121	.5124	-.0002	.0030	.4959
SDev	.0014	.0010	.0008	.0010	.0018	.0012	.0015
%RSD	.2932	56.36	.1653	.1921	953.2	40.93	.3099
#1	.4894	-.0025	.5115	.5131	-.0014	.0021	.4970
#2	.4914	-.0011	.5127	.5117	.0011	.0038	.4948

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	91.49	2.062	2.060	4.190	.5123	2.061	.0014
SDev	.29	.009	.005	.000	.0004	.006	.0022
%RSD	.3189	.4384	.2542	.0100	.0724	.3156	154.4
#1	91.29	2.056	2.056	4.189	.5125	2.056	-.0001
#2	91.70	2.068	2.064	4.190	.5120	2.065	.0029

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	-.0121	.0002	2.074	-.0058	.5029	.0019
SDev	.0000	.0000	.0000	.008	.0204	.0016	.0013
%RSD	2.653	.0316	19.10	.3634	348.3	.3255	69.53
#1	.0007	-.0121	.0002	2.069	-.0203	.5017	.0028
#2	.0007	-.0122	.0002	2.079	.0086	.5040	.0010

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.5123	.0009
SDev	.0001	.0002	.0003
%RSD	289.4	.0451	33.03
#1	-.0000	.5124	.0007
#2	.0001	.5121	.0011

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	924064	10000	--	--	--	--	--
SDev	2901.259	.0000000	--	--	--	--	--
%RSD	.3139672	.0000000	--	--	--	--	--
#1	922013	10000	--	--	--	--	--
#2	926116	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226202 Operator:
Run Time: 05/29/03 16:36:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0082	-.0007	.0041	.0034	.0001	.0006
SDev	.0003	.0002	.0008	.0001	.0003	.0000	.0001
%RSD	328.3	2.076	115.6	1.125	9.052	9.920	21.58
#1	.0003	.0084	-.0001	.0041	.0036	.0001	.0007
#2	-.0001	.0081	-.0013	.0042	.0032	.0001	.0005

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.80	.0001	.0001	.0006	.0010	.0174	.0191
SDev	.07	.0002	.0006	.0000	.0001	.0102	.0085
%RSD	.1648	212.6	433.0	.7238	7.997	58.51	44.59
#1	39.75	.0002	.0006	.0006	.0010	.0246	.0252
#2	39.85	-.0000	-.0003	.0006	.0011	.0102	.0131

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0002	.0092	.0009	.0005	.0195	.0098
SDev	.0005	.0001	.0082	.0001	.0001	.0248	.0059
%RSD	341.6	24.32	89.43	6.035	30.49	127.1	59.59
#1	.0002	.0003	.0150	.0009	.0004	.0020	.0139
#2	-.0005	.0002	.0034	.0009	.0006	.0370	.0057

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0067	-.0001	.0021	.0002	.0030	-.0003
SDev	.0006	.0051	.0023	.0024	.0028	.0046	.0002
%RSD	234.4	75.95	1998.	116.2	1154.	155.6	86.00
#1	.0006	.0103	.0015	.0004	.0022	.0062	-.0001
#2	-.0002	.0031	-.0017	.0038	-.0017	-.0003	-.0004

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	92.43	.0033	.0002	3.232	.0013	.0013	.0009
SDev	.61	.0008	.0004	.001	.0008	.0000	.0013
%RSD	.6562	24.83	185.3	.0155	61.15	2.081	147.2
#1	92.00	.0038	-.0001	3.233	.0008	.0012	.0018
#2	92.86	.0027	.0006	3.232	.0019	.0013	-.0000

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0262	.0003	.0001	-.0001	.0008	-.0001	.0028
SDev	.0000	.0032	.0001	.0000	.0336	.0002	.0013
%RSD	.1672	1205.	74.95	30.36	4134.	167.4	47.30
#1	.0262	-.0020	.0000	-.0001	.0246	-.0002	.0038
#2	.0261	.0025	.0001	-.0001	-.0229	.0000	.0019

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0003	.0004
SDev	.0000	.0001	.0004
%RSD	12.54	24.14	108.5
#1	-.0001	.0003	.0006
#2	-.0001	.0002	.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	933590	10000	--	--	--	--	--
SDev	6100.917	.0000000	--	--	--	--	--
%RSD	.6534900	.0000000	--	--	--	--	--
#1	929276	10000	--	--	--	--	--
#2	937904	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226202d Operator:
Run Time: 05/29/03 16:41:15
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0077	-.0017	.0038	.0020	.0001	-.0009
SDev	.0000	.0112	.0004	.0019	.0001	.0000	.0035
%RSD	3.668	145.4	23.95	49.91	3.930	7.524	410.6
#1	-.0008	-.0002	-.0014	.0052	.0020	.0001	-.0034
#2	-.0007	.0157	-.0020	.0025	.0019	.0001	.0016

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.24	-.0002	-.0005	.0009	.0011	-.0027	-.0035
SDev	.30	.0001	.0003	.0009	.0005	.0145	.0141
%RSD	.7646	68.67	69.69	99.62	48.87	533.4	400.2
#1	39.46	-.0001	-.0002	.0015	.0014	-.0129	-.0135
#2	39.03	-.0003	-.0007	.0003	.0007	.0075	.0064

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	.0001	-.0008	.0007	-.0001	-.0893	.0290
SDev	.0001	.0000	.0018	.0001	.0006	.1306	.0138
%RSD	14.99	7.083	212.5	15.97	1066.	146.3	47.50
#1	-.0010	.0001	-.0021	.0008	.0004	-.1817	.0193
#2	-.0008	.0001	.0004	.0007	-.0005	.0031	.0387

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0013	.0027	.0003	-.0029	.0039	.0028
SDev	.0004	.0026	.0022	.0010	.0023	.0025	.0040
%RSD	514.1	194.4	79.70	285.5	79.18	64.32	140.0
#1	.0002	-.0005	.0012	-.0003	-.0045	.0022	.0057
#2	-.0004	.0031	.0043	.0010	-.0013	.0057	.0000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.70	.0047	.0004	3.236	.0012	.0018	.0005
SDev	2.50	.0028	.0020	.001	.0014	.0004	.0024
%RSD	2.529	59.27	527.1	.0252	119.1	21.30	451.9
#1	96.93	.0027	.0018	3.236	.0002	.0021	-.0012
#2	100.5	.0067	-.0010	3.235	.0021	.0016	.0022

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0255	.0019	.0001	-.0003	-.0251	-.0001	.0016
SDev	.0001	.0039	.0001	.0013	.0200	.0011	.0002
%RSD	.4640	197.9	147.4	402.1	79.67	1544.	11.79
#1	.0254	.0047	.0002	-.0013	-.0393	.0007	.0015
#2	.0255	-.0008	-.0000	.0006	-.0110	-.0009	.0018

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0002	.0003
SDev	.0001	.0001	.0008
%RSD	607.9	60.93	292.6
#1	.0001	.0001	.0008
#2	-.0001	.0003	-.0003

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	996867	10000	--	--	--	--	--
SDev	25218.26	.0000000	--	--	--	--	--
%RSD	2.529751	.0000000	--	--	--	--	--
#1	979035	10000	--	--	--	--	--
#2	1014699	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226203 Operator:
Run Time: 05/29/03 16:45:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	-.0033	-.0013	.0032	.0021	.0001	-.0033
SDev	.0009	.0029	.0010	.0003	.0000	.0000	.0025
%RSD	76.85	85.73	77.10	10.04	.2860	7.340	75.74
#1	-.0005	-.0013	-.0020	.0034	.0021	.0001	-.0051
#2	-.0017	-.0054	-.0006	.0030	.0021	.0001	-.0015

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.83	-.0001	-.0006	.0012	.0017	-.0019	-.0077
SDev	.19	.0002	.0012	.0006	.0003	.0135	.0206
%RSD	.4792	254.7	188.4	51.70	18.10	696.3	265.3
#1	39.97	.0000	.0002	.0007	.0015	.0076	.0068
#2	39.70	-.0002	-.0015	.0016	.0019	-.0115	-.0223

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	.0001	-.0067	.0002	-.0007	-.0763	.0068
SDev	.0011	.0001	.0083	.0001	.0006	.1481	.0057
%RSD	84.28	71.71	124.4	52.79	84.34	194.2	82.92
#1	-.0006	.0002	-.0008	.0001	-.0011	.0284	.0028
#2	-.0022	.0001	-.0126	.0003	-.0003	-.1809	.0109

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0047	-.0033	.0023	-.0036	.0047	.0005
SDev	.0007	.0109	.0012	.0005	.0039	.0027	.0010
%RSD	121.2	230.7	35.52	20.90	106.8	56.40	208.5
#1	.0011	-.0030	-.0025	.0026	-.0009	.0028	.0011
#2	.0001	.0124	-.0041	.0019	-.0064	.0066	-.0002

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.28	-.0020	.0032	3.244	.0004	.0015	.0000
SDev	2.33	.0012	.0001	.005	.0007	.0003	.0001
%RSD	2.442	58.45	4.633	.1571	167.2	20.02	94.75
#1	93.64	-.0012	.0031	3.247	.0009	.0017	.0000
#2	96.93	-.0028	.0033	3.240	-.0001	.0012	.0001

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0254	.0029	.0002	-.0010	-.0438	.0001	-.0018
SDev	.0000	.0004	.0001	.0011	.0293	.0006	.0001
%RSD	.0056	14.56	72.30	110.7	66.75	638.9	4.187
#1	.0254	.0026	.0001	-.0002	-.0231	.0005	-.0017
#2	.0254	.0032	.0003	-.0018	-.0645	-.0003	-.0018

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0006	-.0000
SDev	.0000	.0001	.0001
%RSD	45.52	22.21	5627.
#1	-.0000	.0005	-.0001
#2	-.0001	.0007	.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	962268	10000	--	--	--	--	--
SDev	23538.17	.0000000	--	--	--	--	--
%RSD	2.446114	.0000000	--	--	--	--	--
#1	945624	10000	--	--	--	--	--
#2	978912	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226203s Operator:
Run Time: 05/29/03 16:50:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0522	1.947	2.026	.0032	2.008	.0495	.0066
SDev	.0014	.011	.003	.0012	.008	.0000	.0022
%RSD	2.716	.5700	.1604	39.11	.3886	.0557	33.97
#1	.0512	1.939	2.029	.0040	2.013	.0495	.0050
#2	.0532	1.955	2.024	.0023	2.002	.0495	.0082

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	59.27	.0514	.5022	.1967	.2476	1.120	17.63
SDev	.13	.0005	.0025	.0007	.0018	.014	.06
%RSD	.2193	.9941	.5033	.3749	.7226	1.270	.3468
#1	59.18	.0510	.5004	.1972	.2489	1.110	17.67
#2	59.36	.0518	.5040	.1962	.2463	1.130	17.59

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0003	20.50	.5078	-.0004	18.69	26.96
SDev	.0016	.0001	.01	.0008	.0004	.25	.14
%RSD	115.9	36.71	.0409	.1551	97.17	1.334	.5020
#1	.0002	.0003	20.50	.5072	-.0001	18.51	27.05
#2	.0025	.0004	20.51	.5084	-.0006	18.87	26.86

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4867	-.0041	.5153	.5125	.0071	.0104	.4970
SDev	.0003	.0081	.0068	.0034	.0055	.0076	.0001
%RSD	.0565	198.0	1.321	.6729	78.35	72.92	.0092
#1	.4865	-.0098	.5105	.5101	.0032	.0050	.4971
#2	.4868	.0016	.5201	.5149	.0110	.0158	.4970

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.80	2.139	2.070	7.412	.5135	2.093	.0019
SDev	.92	.011	.024	.006	.0046	.020	.0001
%RSD	.9860	.5225	1.151	.0856	.8897	.9365	4.091
#1	94.45	2.131	2.053	7.407	.5102	2.079	.0019
#2	93.14	2.147	2.087	7.416	.5167	2.107	.0020

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0258	-.0123	.0003	2.095	.0446	.5054	.0054
SDev	.0001	.0052	.0003	.003	.0490	.0012	.0032
%RSD	.2499	42.06	97.78	.1339	109.8	.2326	58.22
#1	.0258	-.0086	.0005	2.093	.0100	.5063	.0032
#2	.0258	-.0160	.0001	2.097	.0793	.5046	.0076

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.5054	.0012
SDev	.0002	.0013	.0008
%RSD	364.2	.2497	69.07
#1	.0002	.5045	.0017
#2	-.0001	.5062	.0006

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	947314	10000	--	--	--	--	--
SDev	9327.445	.0000000	--	--	--	--	--
%RSD	.9846197	.0000000	--	--	--	--	--
#1	953910	10000	--	--	--	--	--
#2	940719	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226204 Operator:
Run Time: 05/29/03 16:55:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0057	-.0010	.0033	.0022	.0001	-.0000
SDev	.0008	.0011	.0007	.0004	.0000	.0000	.0011
%RSD	293.2	19.62	62.82	11.36	1.672	1.917	7877.
#1	-.0003	.0049	-.0015	.0035	.0023	.0001	.0007
#2	.0008	.0065	-.0006	.0030	.0022	.0001	-.0008

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	40.02	.0003	.0001	.0016	.0020	.0082	.0166
SDev	.02	.0000	.0007	.0008	.0001	.0179	.0207
%RSD	.0509	7.739	496.3	54.15	6.184	220.0	124.6
#1	40.01	.0003	-.0004	.0021	.0021	-.0045	.0020
#2	40.03	.0002	.0006	.0010	.0019	.0208	.0312

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0002	.0083	.0003	-.0002	.1415	.0062
SDev	.0005	.0001	.0032	.0001	.0004	.1235	.0038
%RSD	344.6	21.56	38.00	23.21	221.6	87.28	61.59
#1	-.0002	.0002	.0061	.0003	.0001	.0542	.0035
#2	.0005	.0002	.0106	.0002	-.0005	.2288	.0088

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0005	-.0042	.0026	.0006	.0062	.0021
SDev	.0001	.0022	.0012	.0003	.0047	.0011	.0039
%RSD	3258.	401.8	28.56	10.93	843.2	18.25	186.1
#1	.0001	-.0010	-.0033	.0028	-.0028	.0070	-.0007
#2	-.0001	.0021	-.0050	.0024	.0039	.0054	.0049

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.20	-.0017	.0015	3.239	.0004	.0004	.0028
SDev	.48	.0043	.0013	.002	.0006	.0006	.0022
%RSD	.5124	249.4	88.09	.0649	166.1	136.2	76.44
#1	93.53	.0013	.0006	3.240	.0008	.0008	.0013
#2	92.86	-.0048	.0024	3.237	-.0001	.0000	.0044

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0255	.0003	.0003	-.0022	.0037	.0004	.0021
SDev	.0000	.0028	.0002	.0005	.0240	.0005	.0019
%RSD	.1062	821.0	70.33	20.74	644.7	113.8	91.21
#1	.0255	.0023	.0004	-.0019	-.0133	.0001	.0008
#2	.0256	-.0016	.0001	-.0025	.0207	.0008	.0035

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0017	.0005
SDev	.0001	.0000	.0002
%RSD	172.2	.7886	45.63
#1	.0001	.0017	.0006
#2	-.0000	.0017	.0003

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	941262	10000	--	--	--	--	--
SDev	4852.874	.0000000	--	--	--	--	--
%RSD	.5155707	.0000000	--	--	--	--	--
#1	944694	10000	--	--	--	--	--
#2	937831	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226205 Operator:
Run Time: 05/29/03 16:59:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0032	-.0018	.0037	.0020	.0001	-.0029
SDev	.0012	.0013	.0015	.0008	.0001	.0000	.0008
%RSD	163.3	40.18	83.17	21.44	5.592	6.379	28.18
#1	.0001	.0042	-.0029	.0031	.0019	.0001	-.0023
#2	-.0015	.0023	-.0007	.0042	.0021	.0002	-.0034

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.74	-.0000	-.0005	.0011	.0015	.0093	.0133
SDev	.19	.0003	.0005	.0017	.0007	.0352	.0304
%RSD	.4892	629.5	98.74	157.7	44.24	380.3	227.7
#1	39.88	.0001	-.0002	-.0001	.0011	.0342	.0348
#2	39.61	-.0002	-.0009	.0023	.0020	-.0157	-.0081

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	.0002	.0002	.0002	.0000	.1367	.0108
SDev	.0012	.0001	.0123	.0001	.0009	.3334	.0033
%RSD	93.48	59.62	5003.	80.38	2027.	243.9	30.74
#1	-.0004	.0003	.0089	.0001	-.0006	.3724	.0131
#2	-.0022	.0001	-.0084	.0003	.0007	-.0991	.0084

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0010	-.0096	.0047	.0005	.0050	-.0024
SDev	.0003	.0057	.0053	.0027	.0070	.0020	.0013
%RSD	65.96	567.5	55.59	58.74	1493.	39.84	52.38
#1	.0002	-.0030	-.0058	.0027	.0054	.0064	-.0015
#2	.0007	.0050	-.0133	.0066	-.0045	.0036	-.0033

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.75	-.0036	.0056	3.243	-.0001	.0025	-.0001
SDev	1.19	.0092	.0014	.002	.0000	.0022	.0006
%RSD	1.254	257.1	24.97	.0722	62.34	84.89	898.0
#1	93.90	.0029	.0046	3.245	-.0001	.0040	-.0005
#2	95.59	-.0101	.0066	3.242	-.0000	.0010	.0003

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0253	.0045	.0002	-.0012	-.0284	.0001	.0019
SDev	.0000	.0048	.0003	.0015	.0496	.0012	.0041
%RSD	.0899	106.4	137.9	127.7	174.6	2054.	215.9
#1	.0253	.0011	.0000	-.0022	.0067	-.0008	.0048
#2	.0253	.0079	.0004	-.0001	-.0635	.0009	-.0010

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0000	.0003
SDev	.0002	.0002	.0007
%RSD	300.4	604.9	217.0
#1	-.0001	.0002	-.0002
#2	.0002	-.0001	.0008

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	956917	10000	--	--	--	--	--
SDev	11940.20	.0000000	--	--	--	--	--
%RSD	1.247778	.0000000	--	--	--	--	--
#1	948474	10000	--	--	--	--	--
#2	965360	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226206 Operator:
Run Time: 05/29/03 17:04:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0064	.0003	.0019	.0114	.0002	-.0011
SDev	.0019	.0132	.0015	.0007	.0002	.0000	.0031
%RSD	314.7	204.4	456.3	38.61	1.445	6.206	280.6
#1	.0020	.0157	.0014	.0014	.0113	.0002	.0011
#2	-.0008	-.0029	-.0007	.0024	.0115	.0002	-.0033

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.73	.0002	.0005	.0007	.0012	.0237	.0224
SDev	.26	.0004	.0016	.0014	.0004	.0502	.0444
%RSD	.6464	284.3	311.3	197.0	29.95	211.8	198.3
#1	39.91	.0005	.0017	-.0003	.0010	.0592	.0537
#2	39.55	-.0002	-.0006	.0017	.0015	-.0118	-.0090

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0002	.0081	.0004	-.0002	.2982	.0221
SDev	.0021	.0001	.0177	.0001	.0011	.5304	.0043
%RSD	352.4	89.87	218.0	10.97	478.5	177.9	19.68
#1	.0021	.0003	.0206	.0004	-.0010	.6733	.0252
#2	-.0009	.0001	-.0044	.0005	.0006	-.0769	.0190

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0012	.0005	.0022	.0019	.0063	.0015
SDev	.0006	.0079	.0081	.0049	.0091	.0021	.0023
%RSD	117.5	674.3	1718.	222.0	467.4	33.57	154.1
#1	.0001	-.0067	.0062	-.0013	.0083	.0078	-.0001
#2	.0010	.0044	-.0053	.0057	-.0045	.0048	.0031

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.50	.0010	.0002	3.185	.0016	.0004	.0009
SDev	1.78	.0074	.0054	.008	.0005	.0011	.0011
%RSD	1.824	775.8	3294.	.2380	32.89	258.3	115.8
#1	96.25	.0062	-.0037	3.190	.0013	-.0004	.0017
#2	98.76	-.0043	.0040	3.180	.0020	.0012	.0002

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0258	.0003	-.0000	.0024	.0433	-.0001	.0023
SDev	.0000	.0041	.0002	.0010	.0790	.0005	.0034
%RSD	.1709	1608.	556.5	40.79	182.4	583.8	144.7
#1	.0258	-.0026	-.0001	.0030	.0992	-.0004	.0047
#2	.0258	.0031	.0001	.0017	-.0125	.0003	-.0001

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0005	-.0000
SDev	.0001	.0002	.0000
%RSD	1457.	43.41	375.5
#1	-.0001	.0006	.0000
#2	.0001	.0003	-.0000

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	984694	10000	--	--	--	--	--
SDev	17945.66	.0000000	--	--	--	--	--
%RSD	1.822462	.0000000	--	--	--	--	--
#1	972004	10000	--	--	--	--	--
#2	997383	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226207 Operator:
Run Time: 05/29/03 17:09:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	-.0025	.0003	.0012	.0452	.0001	-.0029
SDev	.0016	.0071	.0024	.0008	.0003	.0000	.0054
%RSD	602.8	286.2	840.4	60.27	.5838	3.034	189.9
#1	.0008	.0025	.0020	.0018	.0450	.0001	.0010
#2	-.0014	-.0075	-.0014	.0007	.0454	.0001	-.0067

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	45.76	.0002	.0012	.0004	.0018	.0005	.0087
SDev	.47	.0005	.0012	.0008	.0005	.0213	.0314
%RSD	1.034	199.7	94.78	187.4	27.38	3935.	360.0
#1	46.10	.0006	.0020	.0010	.0021	.0156	.0310
#2	45.43	-.0001	.0004	-.0001	.0014	-.0145	-.0135

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0001	.0009	.0012	-.0001	-.0128	.0185
SDev	.0017	.0001	.0098	.0000	.0001	.3526	.0012
%RSD	307.1	108.4	1110.	3.512	194.6	2751.	6.261
#1	.0006	.0002	.0078	.0012	-.0002	.2365	.0177
#2	-.0017	.0000	-.0061	.0012	.0000	-.2622	.0194

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	.0037	-.0024	.0012	-.0004	.0149	-.0008
SDev	.0004	.0057	.0004	.0007	.0077	.0021	.0041
%RSD	24.88	156.3	16.45	60.73	1773.	14.01	530.3
#1	.0018	-.0004	-.0027	.0007	.0050	.0164	.0021
#2	.0012	.0077	-.0021	.0017	-.0059	.0134	-.0037

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.00	.0006	.0023	3.575	.0000	.0017	.0001
SDev	2.11	.0014	.0012	.005	.0006	.0012	.0013
%RSD	2.173	241.5	50.63	.1500	1762.	71.28	1586.
#1	95.51	.0015	.0031	3.578	-.0004	.0026	.0010
#2	98.49	-.0004	.0015	3.571	.0005	.0009	-.0008

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0306	-.0001	-.0001	-.0017	.0968	-.0002	-.0005
SDev	.0000	.0005	.0001	.0001	.0499	.0008	.0000
%RSD	.1444	878.1	239.6	5.768	51.50	532.9	2.496
#1	.0305	.0003	.0000	-.0018	.1321	.0004	-.0005
#2	.0306	-.0004	-.0001	-.0017	.0616	-.0007	-.0005

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0004	-.0004
SDev	.0001	.0002	.0007
%RSD	216.3	50.28	200.9
#1	.0002	.0006	.0002
#2	-.0000	.0003	-.0009

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	979701	10000	--	--	--	--	--
SDev	21225.93	.0000000	--	--	--	--	--
%RSD	2.166572	.0000000	--	--	--	--	--
#1	964692	10000	--	--	--	--	--
#2	994710	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCV2 Operator:
Run Time: 05/29/03 17:17:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9913	9.772	4.958	4.810	9.685	.9766	5.045
SDev	.0003	.021	.001	.029	.050	.0051	.009
%RSD	.0265	.2190	.0122	.5950	.5194	.5230	.1711
#1	.9911	9.757	4.958	4.790	9.650	.9802	5.039
#2	.9915	9.788	4.957	4.830	9.721	.9730	5.051
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.100	11.00	5.500	5.500	11.00	1.100	5.500
Low	.9000	9.000	4.500	4.500	9.000	.9000	4.500

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.06	1.020	5.014	1.932	1.934	10.38	18.17
SDev	.05	.009	.028	.010	.009	.08	.15
%RSD	.2375	.9173	.5602	.5368	.4510	.7315	.8506
#1	20.10	1.026	5.034	1.939	1.928	10.43	18.06
#2	20.03	1.013	4.994	1.924	1.940	10.32	18.28
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	22.00	1.100	5.500	2.200	2.200	11.00	22.00
Low	18.00	.9000	4.500	1.800	1.800	9.000	18.00

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.915	4.766	20.03	1.016	5.121	27.57	H40.30
SDev	.009	.041	.10	.003	.009	.14	.31
%RSD	.1867	.8544	.4832	.3069	.1835	.5011	.7790
#1	4.908	4.737	20.10	1.018	5.114	27.66	H40.08
#2	4.921	4.795	19.96	1.014	5.127	27.47	H40.52
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	5.500	22.00	1.100	5.500	33.00	33.00
Low	4.500	4.500	18.00	.9000	4.500	27.00	27.00

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.803	4.982	5.088	5.047	.9880	1.007	.9866
SDev	.023	.106	.090	.066	.0000	.011	.0013
%RSD	.4808	2.132	1.767	1.302	.0035	1.084	.1314
#1	4.819	4.906	5.152	5.094	.9880	.9988	.9857
#2	4.787	5.057	5.025	5.001	.9880	1.014	.9875
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	5.500	5.500			1.100	1.100	1.100
Low	4.500	4.500			.9000	.9000	.9000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.57	5.233	5.207	5.060	5.061	5.216	4.938
SDev	1.81	.086	.044	.008	.074	.058	.013
%RSD	1.917	1.638	.8545	.1530	1.458	1.117	.2636
#1	93.29	5.294	5.238	5.066	5.113	5.257	4.947
#2	95.85	5.173	5.175	5.055	5.009	5.174	4.928
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				5.500	5.500	5.500	5.500
Low				4.500	4.500	4.500	4.500

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.074	.9782	4.837	5.197	.9398	4.966	H1.315
SDev	.008	.0060	.006	.006	.0088	.018	.009
%RSD	.1641	.6154	.1202	.1178	.9401	.3724	.7220
#1	5.068	.9824	4.841	5.201	.9335	4.980	H1.321
#2	5.080	.9739	4.833	5.193	.9460	4.953	H1.308
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	1.100	5.500	5.500	1.100	5.500	1.100
Low	4.500	.9000	4.500	4.500	.9000	4.500	.9000

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.851	1.017	4.840
SDev	.001	.008	.013
%RSD	.0306	.7412	.2585
#1	4.852	1.023	4.832
#2	4.850	1.012	4.849
Errors	LC Pass	LC Pass	LC Pass
High	5.500	1.100	5.500
Low	4.500	.9000	4.500

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	955120	10000	--	--	--	--	--
SDev	18244.77	.0000000	--	--	--	--	--
%RSD	1.910207	.0000000	--	--	--	--	--
#1	942219	10000	--	--	--	--	--
#2	968021	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCB2 Operator:
Run Time: 05/29/03 17:24:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	-.0043	-.0001	.0087	.0002	.0002	-.0008
SDev	.0006	.0045	.0021	.0016	.0001	.0000	.0010
%RSD	169.5	103.4	3134.	17.96	43.07	12.97	126.5
#1	.0008	-.0012	-.0016	.0098	.0003	.0002	-.0001
#2	-.0001	-.0075	.0014	.0076	.0001	.0001	-.0016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0141	.0002	.0009	.0011	.0011	H.0442	.0298
SDev	.0166	.0002	.0006	.0003	.0003	.0068	.0055
%RSD	117.3	88.58	63.28	22.19	29.51	15.47	18.54
#1	.0024	.0003	.0013	.0013	.0013	H.0490	.0259
#2	.0258	.0001	.0005	.0009	.0009	H.0393	.0337
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0003	.0059	.0001	.0042	H.3744	.0115
SDev	.0005	.0000	.0019	.0000	.0003	.1511	.0029
%RSD	132.7	10.58	31.48	49.17	7.063	40.36	24.86
#1	.0008	.0003	.0046	.0001	.0044	H.4813	.0135
#2	.0000	.0003	.0072	.0001	.0040	H.2675	.0095
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0009	-.0025	.0020	H.0056	.0043	.0008
SDev	.0005	.0002	.0037	.0022	.0001	.0000	.0017
%RSD	692.1	20.38	151.0	112.4	1.967	.8608	224.4
#1	.0003	-.0010	-.0051	.0035	H.0055	.0043	-.0004
#2	-.0004	-.0008	.0002	.0004	H.0056	.0043	.0020
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC High	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.68	-.0006	.0009	.0024	.0005	.0004	.0011
SDev	1.31	.0069	.0002	.0043	.0002	.0024	.0018
%RSD	1.314	1102.	22.64	179.7	47.58	609.3	164.2
#1	100.6	-.0055	.0008	.0054	.0007	-.0013	-.0002
#2	98.75	.0042	.0010	-.0006	.0003	.0021	.0024
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0008	.0003	.0050	.0157	.0004	.0025
SDev	.0000	.0002	.0002	.0010	.0139	.0000	.0009
%RSD	47.76	21.64	60.37	21.29	88.05	5.767	35.26
#1	.0001	.0009	.0004	.0057	.0255	.0004	.0019
#2	.0000	.0007	.0002	.0042	.0059	.0004	.0031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0002	-.0002	.0010
SDev	.0001	.0000	.0003
%RSD	80.04	25.85	29.51
#1	.0003	-.0001	.0012
#2	.0001	-.0002	.0008
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1006726	10000	--	--	--	--	--
SDev	13182.59	.0000000	--	--	--	--	--
%RSD	1.309452	.0000000	--	--	--	--	--
#1	1016047	10000	--	--	--	--	--
#2	997404	10000	--	--	--	--	--

010246

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Method: DAILY2 Sample Name: 226208 Operator:
Run Time: 05/29/03 17:28:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	-.0016	-.0010	.0050	.0217	.0002	-.0027
SDev	.0019	.0128	.0013	.0005	.0001	.0000	.0059
%RSD	273.2	813.7	129.6	9.230	.4478	3.697	220.0
#1	-.0021	-.0106	-.0001	.0053	.0217	.0002	-.0068
#2	.0007	.0075	-.0020	.0047	.0216	.0002	.0015

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.40	.0001	-.0006	-.0000	.0010	.0058	.0306
SDev	.21	.0001	.0010	.0006	.0003	.0462	.0561
%RSD	.5347	81.70	171.1	1587.	33.98	790.8	183.3
#1	39.25	.0001	-.0013	.0004	.0012	-.0268	-.0091
#2	39.55	.0000	.0001	-.0005	.0007	.0385	.0703

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0002	.0014	.0006	.0013	-.0090	.0409
SDev	.0018	.0001	.0120	.0000	.0007	.5571	.0084
%RSD	239.1	84.19	847.9	.8385	53.01	6190.	20.63
#1	-.0020	.0001	-.0070	.0006	.0018	-.4029	.0349
#2	.0005	.0003	.0099	.0006	.0008	.3849	.0468

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0015	-.0011	.0024	-.0012	.0054	-.0034
SDev	.0000	.0021	.0021	.0023	.0105	.0009	.0073
%RSD	11.10	139.4	192.0	96.61	869.5	17.03	217.7
#1	-.0002	.0030	-.0026	.0041	-.0086	.0047	.0018
#2	-.0002	.0000	.0004	.0008	.0062	.0060	-.0085

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.5	.0017	.0027	3.163	.0013	.0024	-.0014
SDev	1.4	.0052	.0011	.009	.0008	.0010	.0030
%RSD	1.396	299.2	41.19	.2759	67.48	41.71	215.2
#1	101.5	-.0019	.0034	3.157	.0019	.0017	-.0035
#2	99.53	.0054	.0019	3.170	.0007	.0031	.0007

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0262	-.0002	-.0001	.0010	.0193	-.0006	.0006
SDev	.0001	.0042	.0001	.0006	.0627	.0001	.0009
%RSD	.3459	2399.	70.48	62.99	324.6	24.03	164.3
#1	.0261	.0028	-.0001	.0005	-.0250	-.0005	-.0001
#2	.0262	-.0032	-.0002	.0014	.0636	-.0007	.0012

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0003	-.0002
SDev	.0000	.0007	.0003
%RSD	40.43	232.1	184.8
#1	-.0000	-.0002	-.0004
#2	-.0000	.0008	.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1015306	10000	--	--	--	--	--
SDev	14132.94	.0000000	--	--	--	--	--
%RSD	1.391988	.0000000	--	--	--	--	--
#1	1025300	10000	--	--	--	--	--
#2	1005313	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226209 Operator:
Run Time: 05/29/03 17:33:29
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0045	.0011	.0038	.0304	.0002	.0039
SDev	.0013	.0046	.0011	.0002	.0001	.0000	.0023
%RSD	342.2	101.7	98.47	6.094	.2497	3.392	60.24
#1	-.0005	.0013	.0003	.0040	.0305	.0002	.0022
#2	.0013	.0077	.0019	.0036	.0304	.0002	.0055

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	40.88	.0003	.0004	.0011	.0015	.0160	.0298
SDev	.03	.0003	.0008	.0000	.0001	.0171	.0133
%RSD	.0701	128.4	211.1	3.691	8.016	106.4	44.74
#1	40.86	.0000	-.0002	.0011	.0016	.0040	.0204
#2	40.90	.0005	.0010	.0011	.0014	.0281	.0393

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0002	.0088	.0008	.0009	.1328	.0098
SDev	.0010	.0001	.0105	.0000	.0007	.2418	.0061
%RSD	127.8	37.24	120.2	3.844	80.16	182.1	62.19
#1	.0001	.0001	.0013	.0008	.0013	-.0382	.0055
#2	.0015	.0002	.0162	.0008	.0004	.3037	.0142

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0027	.0002	-.0012	.0005	.0085	-.0001
SDev	.0003	.0041	.0041	.0018	.0032	.0081	.0013
%RSD	333.7	153.3	2457.	156.6	695.4	94.58	1652.
#1	.0003	-.0056	-.0027	.0001	-.0018	.0028	.0008
#2	-.0001	.0002	.0031	-.0025	.0027	.0142	-.0010

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.60	.0037	.0005	3.209	-.0007	.0016	.0018
SDev	.08	.0062	.0035	.004	.0001	.0003	.0011
%RSD	.0895	166.3	665.6	.1283	20.84	18.23	62.96
#1	94.54	-.0007	.0030	3.212	-.0008	.0018	.0010
#2	94.66	.0081	-.0020	3.206	-.0006	.0014	.0026

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0263	.0000	.0000	.0008	.1200	-.0002	.0022
SDev	.0001	.0032	.0001	.0051	.0357	.0002	.0015
%RSD	.3606	48010.	269.0	651.1	29.78	83.56	71.60
#1	.0262	.0023	.0001	-.0028	.0948	-.0001	.0011
#2	.0264	-.0023	-.0000	.0044	.1453	-.0004	.0033

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0018	.0002
SDev	.0001	.0019	.0003
%RSD	340.6	106.3	156.0
#1	.0001	.0004	.0003
#2	-.0000	.0031	-.0000

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	955436	10000	--	--	--	--	--
SDev	904.3896	.0000000	--	--	--	--	--
%RSD	.0946573	.0000000	--	--	--	--	--
#1	954796	10000	--	--	--	--	--
#2	956075	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226210 Operator:
Run Time: 05/29/03 17:38:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	-.0019	.0016	.0029	.0371	.0002	-.0015
SDev	.0011	.0043	.0029	.0003	.0003	.0000	.0044
%RSD	138.0	221.9	172.9	12.02	.8848	3.358	301.9
#1	-.0016	-.0050	-.0004	.0032	.0374	.0002	-.0046
#2	-.0000	.0011	.0037	.0027	.0369	.0002	.0017

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	41.25	-.0000	.0015	.0008	.0011	.0044	.0421
SDev	.22	.0004	.0008	.0000	.0001	.0189	.0162
%RSD	.5448	887.2	53.39	.3856	4.293	428.9	38.46
#1	41.09	-.0003	.0009	.0008	.0011	-.0090	.0307
#2	41.41	.0002	.0021	.0008	.0012	.0178	.0536

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	.0002	-.0007	.0008	.0004	.0632	.0199
SDev	.0017	.0000	.0078	.0000	.0006	.2341	.0035
%RSD	190.6	25.72	1097.	3.618	159.4	370.5	17.49
#1	-.0021	.0001	-.0062	.0008	-.0000	-.1023	.0223
#2	.0003	.0002	.0048	.0008	.0008	.2287	.0174

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0010	-.0010	.0012	-.0010	.0032	.0009
SDev	.0004	.0029	.0032	.0015	.0048	.0061	.0050
%RSD	54.74	307.6	310.6	126.9	494.4	188.5	552.2
#1	.0004	-.0011	.0012	.0001	-.0044	-.0011	.0045
#2	.0010	.0030	-.0033	.0022	.0024	.0076	-.0026

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.73	.0035	-.0004	3.238	.0004	.0009	-.0003
SDev	1.66	.0013	.0008	.005	.0001	.0009	.0019
%RSD	1.712	35.76	217.3	.1443	22.00	100.9	770.3
#1	97.90	.0044	.0002	3.235	.0005	.0016	-.0016
#2	95.56	.0026	-.0009	3.241	.0004	.0003	.0011

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0269	.0013	.0001	-.0004	.0306	-.0004	.0006
SDev	.0001	.0020	.0001	.0030	.0447	.0004	.0028
%RSD	.2351	155.6	139.4	704.9	146.1	106.5	511.1
#1	.0270	.0028	.0001	-.0026	-.0010	-.0001	-.0014
#2	.0269	-.0001	.0000	.0017	.0623	-.0006	.0026

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0004	-.0003
SDev	.0001	.0007	.0002
%RSD	133.3	165.6	79.15
#1	.0001	-.0001	-.0004
#2	.0000	.0009	-.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	976931	10000	--	--	--	--	--
SDev	16785.30	.0000000	--	--	--	--	--
%RSD	1.718166	.0000000	--	--	--	--	--
#1	988800	10000	--	--	--	--	--
#2	965062	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226211 Operator:
Run Time: 05/29/03 17:42:50
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0034	-.0003	.0033	.0405	.0002	-.0009
SDev	.0017	.0045	.0007	.0004	.0003	.0000	.0051
%RSD	460.8	132.8	259.3	13.54	.6430	4.296	593.3
#1	.0008	-.0002	.0002	.0029	.0403	.0002	.0027
#2	-.0015	-.0066	-.0008	.0036	.0407	.0002	-.0045

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	41.60	.0002	.0014	.0018	.0029	-.0148	.0131
SDev	.25	.0004	.0008	.0019	.0008	.0474	.0526
%RSD	.5926	169.9	53.85	102.8	26.58	321.0	401.6
#1	41.78	.0005	.0020	.0005	.0023	.0188	.0503
#2	41.43	-.0000	.0009	.0031	.0034	-.0483	-.0241

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0001	-.0022	.0010	.0006	-.0960	.0244
SDev	.0015	.0001	.0119	.0001	.0008	.4955	.0090
%RSD	224.2	160.4	544.7	13.52	142.8	516.4	36.75
#1	.0004	.0002	.0062	.0009	-.0000	.2544	.0307
#2	-.0018	-.0000	-.0106	.0011	.0012	-.4463	.0180

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	-.0028	-.0049	.0030	-.0050	.0067	.0032
SDev	.0018	.0026	.0006	.0003	.0110	.0039	.0015
%RSD	117.8	91.71	12.49	10.16	218.6	57.16	46.62
#1	.0002	-.0046	-.0044	.0028	.0027	.0040	.0022
#2	.0027	-.0010	-.0053	.0032	-.0128	.0095	.0043

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.50	-.0010	.0021	3.286	.0004	.0010	.0005
SDev	.84	.0043	.0017	.001	.0000	.0003	.0027
%RSD	.8417	435.0	80.58	.0318	1.010	32.00	548.4
#1	98.91	.0021	.0009	3.287	.0004	.0013	.0024
#2	100.1	-.0041	.0032	3.285	.0004	.0008	-.0014

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0275	.0041	.0001	-.0014	.0677	-.0001	.0028
SDev	.0000	.0050	.0003	.0022	.0410	.0011	.0036
%RSD	.0468	123.5	231.7	149.2	60.59	1292.	131.6
#1	.0275	.0005	-.0001	-.0030	.0967	-.0009	.0053
#2	.0275	.0076	.0003	.0001	.0387	.0007	.0002

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0002	.0022	.0004
SDev	.0002	.0000	.0006
%RSD	93.11	2.047	152.6
#1	.0001	.0022	-.0000
#2	.0003	.0021	.0009

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1004954	10000	--	--	--	--	--
SDev	8471.847	.0000000	--	--	--	--	--
%RSD	.8430088	.0000000	--	--	--	--	--
#1	998963	10000	--	--	--	--	--
#2	1010944	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226212 Operator:
Run Time: 05/29/03 17:47:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0007	-.0004	.0030	.0417	.0002	.0002
SDev	.0008	.0009	.0015	.0010	.0001	.0000	.0050
%RSD	182.8	131.5	425.2	33.62	.3068	3.035	2929.
#1	.0009	.0013	.0007	.0023	.0417	.0002	.0037
#2	-.0001	.0000	-.0014	.0038	.0418	.0002	-.0033

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	42.28	.0003	.0003	.0010	.0028	.0204	.0939
SDev	.07	.0001	.0004	.0021	.0009	.0256	.0279
%RSD	.1714	27.13	129.8	215.1	32.24	125.1	29.66
#1	42.33	.0003	.0006	-.0005	.0021	.0385	.1137
#2	42.22	.0002	.0000	.0025	.0034	.0024	.0742

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0002	.0094	.0015	-.0001	.2628	.0204
SDev	.0006	.0001	.0021	.0001	.0001	.2701	.0038
%RSD	159.5	34.32	22.24	6.141	137.1	102.8	18.42
#1	.0008	.0002	.0108	.0015	-.0002	.4537	.0231
#2	-.0000	.0001	.0079	.0016	-.0000	.0718	.0178

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0126	.0002	-.0002	.0027	.0087	.0035
SDev	.0008	.0072	.0043	.0005	.0033	.0011	.0055
%RSD	69.99	57.26	1853.	289.5	120.6	12.70	155.5
#1	.0005	.0075	.0033	-.0006	.0051	.0095	-.0004
#2	.0016	.0177	-.0028	.0002	.0004	.0079	.0074

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.23	.0021	-.0016	3.301	-.0000	-.0003	.0011
SDev	.09	.0019	.0012	.005	.0011	.0002	.0004
%RSD	.0992	90.48	79.90	.1413	3791.	60.45	35.06
#1	95.16	.0034	-.0024	3.305	.0007	-.0005	.0009
#2	95.30	.0007	-.0007	3.298	-.0008	-.0002	.0014

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0279	.0025	.0003	.0013	.0478	-.0001	.0020
SDev	.0000	.0036	.0003	.0004	.0288	.0012	.0016
%RSD	.0232	143.9	81.83	35.13	60.33	1273.	79.48
#1	.0279	-.0000	.0001	.0010	.0682	-.0010	.0009
#2	.0279	.0050	.0005	.0016	.0274	.0008	.0031

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0002	.0004	.0010
SDev	.0002	.0003	.0007
%RSD	129.2	76.94	74.95
#1	.0000	.0006	.0004
#2	.0003	.0002	.0015

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	961746	10000	--	--	--	--	--
SDev	938.3307	.0000000	--	--	--	--	--
%RSD	.0975653	.0000000	--	--	--	--	--
#1	961083	10000	--	--	--	--	--
#2	962410	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226213 Operator:
Run Time: 05/29/03 17:52:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0007	-.0009	.0015	.0430	.0002	.0006
SDev	.0005	.0027	.0001	.0007	.0001	.0000	.0026
%RSD	732.8	363.3	12.30	47.63	.2991	16.42	445.0
#1	-.0003	-.0026	-.0010	.0010	.0431	.0002	-.0013
#2	.0004	.0012	-.0008	.0020	.0429	.0002	.0024

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	43.14	.0001	-.0000	.0001	.0007	.0123	.0303
SDev	.27	.0001	.0001	.0010	.0004	.0085	.0011
%RSD	.6287	269.2	569.0	661.9	55.68	69.30	3.538
#1	42.95	-.0000	-.0001	-.0005	.0004	.0183	.0311
#2	43.33	.0001	.0001	.0008	.0010	.0063	.0295

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0001	.0050	.0009	-.0002	.2093	.0274
SDev	.0003	.0000	.0035	.0002	.0009	.0516	.0071
%RSD	108.1	19.43	69.16	17.15	388.4	24.66	26.02
#1	-.0006	.0002	.0026	.0008	-.0009	.2458	.0324
#2	-.0001	.0001	.0075	.0010	.0004	.1728	.0223

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	-.0034	-.0003	.0018	.0015	.0141	.0009
SDev	.0010	.0076	.0004	.0008	.0005	.0017	.0052
%RSD	3322.	222.2	109.8	42.58	35.13	12.09	594.5
#1	-.0007	-.0088	-.0006	.0023	.0011	.0129	-.0028
#2	.0007	.0019	-.0001	.0012	.0018	.0154	.0046

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.32	.0009	.0000	3.384	.0011	.0004	-.0001
SDev	1.66	.0033	.0029	.002	.0004	.0008	.0011
%RSD	1.701	353.0	6284.	.0558	35.03	240.3	1609.
#1	98.49	-.0014	.0021	3.383	.0013	.0009	.0007
#2	96.15	.0033	-.0020	3.385	.0008	-.0002	-.0008

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0282	-.0020	-.0001	.0015	.0970	-.0008	-.0004
SDev	.0001	.0011	.0002	.0018	.0014	.0008	.0023
%RSD	.3283	52.85	210.7	122.1	1.386	100.6	627.2
#1	.0283	-.0027	-.0002	.0002	.0961	-.0013	-.0020
#2	.0282	-.0013	.0000	.0028	.0980	-.0002	.0013

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0002	-.0003
SDev	.0001	.0004	.0007
%RSD	125.3	174.9	214.8
#1	-.0002	-.0001	-.0009
#2	-.0000	.0005	.0002

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	982916	10000	--	--	--	--	--
SDev	16761.97	.0000000	--	--	--	--	--
%RSD	1.705331	.0000000	--	--	--	--	--
#1	994768	10000	--	--	--	--	--
#2	971063	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226214 Operator:
Run Time: 05/29/03 17:56:52
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	.0171	-.0019	.0031	.0438	.0002	-.0027
SDev	.0005	.0358	.0016	.0010	.0001	.0000	.0063
%RSD	84.22	209.5	81.93	32.34	.1554	1.323	238.1
#1	-.0010	-.0082	-.0031	.0024	.0437	.0002	-.0071
#2	-.0003	.0424	-.0008	.0039	.0438	.0002	.0018

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	43.65	.0001	-.0002	.0017	.0020	.0007	.0084
SDev	.05	.0002	.0005	.0006	.0006	.0106	.0081
%RSD	.1250	175.8	215.7	35.21	32.08	1484.	96.68
#1	43.69	-.0000	-.0005	.0012	.0016	-.0068	.0027
#2	43.62	.0002	.0001	.0021	.0025	.0082	.0142

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0001	.0005	.0013	-.0006	.1196	.0260
SDev	.0002	.0000	.0012	.0001	.0006	.0250	.0017
%RSD	22.10	6.086	233.7	7.292	94.69	20.92	6.532
#1	-.0007	.0001	.0014	.0012	-.0011	.1019	.0248
#2	-.0009	.0001	-.0003	.0014	-.0002	.1373	.0272

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0001	-.0044	.0035	-.0016	.0122	.0037
SDev	.0011	.0037	.0051	.0022	.0000	.0034	.0027
%RSD	106.6	5144.	115.6	63.65	.7565	27.46	74.06
#1	.0003	-.0025	-.0008	.0019	-.0016	.0099	.0017
#2	.0018	.0027	-.0081	.0051	-.0016	.0146	.0056

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.45	.0004	.0026	3.423	.0009	.0019	.0020
SDev	.11	.0012	.0001	.005	.0002	.0003	.0015
%RSD	.1101	333.3	5.628	.1417	25.36	16.76	77.78
#1	97.52	-.0005	.0027	3.419	.0010	.0016	.0009
#2	97.37	.0012	.0025	3.426	.0007	.0021	.0031

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0288	.0042	.0003	-.0011	.0882	.0005	.0020
SDev	.0001	.0022	.0002	.0003	.0212	.0008	.0001
%RSD	.2611	52.61	56.11	24.38	24.00	162.9	4.388
#1	.0288	.0026	.0002	-.0009	.0733	-.0001	.0020
#2	.0289	.0058	.0005	-.0013	.1032	.0011	.0021

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0002	.0015	.0008
SDev	.0001	.0001	.0008
%RSD	33.93	9.227	92.92
#1	.0002	.0014	.0003
#2	.0003	.0016	.0014

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	984220	10000	--	--	--	--	--
SDev	1086.116	.0000000	--	--	--	--	--
%RSD	.1103530	.0000000	--	--	--	--	--
#1	984988	10000	--	--	--	--	--
#2	983452	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226215 Operator:
Run Time: 05/29/03 18:01:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0034	.0001	.0023	.0444	.0002	.0001
SDev	.0000	.0031	.0016	.0004	.0001	.0000	.0033
%RSD	3.562	90.94	1201.	17.87	.3488	1.640	4512.
#1	-.0002	-.0012	.0013	.0020	.0443	.0002	.0024
#2	-.0002	-.0056	-.0010	.0026	.0445	.0002	-.0022

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	45.11	.0000	.0000	.0011	.0021	.0119	.0275
SDev	.14	.0001	.0001	.0003	.0004	.0118	.0059
%RSD	.3047	189.0	509.0	29.10	17.95	98.95	21.51
#1	45.20	-.0000	.0001	.0009	.0018	.0203	.0317
#2	45.01	.0001	-.0000	.0013	.0023	.0036	.0233

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0001	-.0005	.0012	-.0005	.1016	.0223
SDev	.0002	.0001	.0072	.0001	.0003	.0520	.0018
%RSD	41.14	45.21	1334.	5.725	63.69	51.21	8.077
#1	-.0004	.0001	.0045	.0012	-.0008	.1383	.0235
#2	-.0007	.0001	-.0056	.0013	-.0003	.0648	.0210

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0003	-.0015	.0013	-.0002	.0040	.0008
SDev	.0002	.0061	.0006	.0018	.0017	.0001	.0003
%RSD	13.62	2043.	38.29	138.5	1049.	3.604	42.66
#1	.0012	-.0040	-.0011	.0026	.0010	.0041	.0005
#2	.0015	.0046	-.0019	.0000	-.0014	.0039	.0010

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.02	-.0011	-.0008	3.588	.0004	-.0009	-.0011
SDev	.49	.0002	.0029	.011	.0014	.0019	.0017
%RSD	.5119	19.96	356.1	.3013	361.6	207.4	157.4
#1	94.67	-.0010	-.0029	3.596	.0014	-.0023	.0001
#2	95.36	-.0013	.0013	3.581	-.0006	.0004	-.0023

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0293	.0008	.0001	-.0014	.7511	.0003	.0026
SDev	.0000	.0021	.0001	.0005	.0158	.0006	.0008
%RSD	.0563	250.3	87.75	35.90	2.105	206.8	29.29
#1	.0293	-.0006	.0000	-.0011	.7623	-.0001	.0020
#2	.0294	.0023	.0001	-.0018	.7400	.0008	.0031

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0002	.0004	-.0002
SDev	.0001	.0001	.0002
%RSD	34.57	25.71	67.45
#1	.0001	.0005	-.0003
#2	.0002	.0003	-.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	959690	10000	--	--	--	--	--
SDev	4865.602	.0000000	--	--	--	--	--
%RSD	.5069975	.0000000	--	--	--	--	--
#1	956249	10000	--	--	--	--	--
#2	963130	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226216 Operator:
Run Time: 05/29/03 18:06:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0231	-.0016	.0014	.0196	.0002	-.0012
SDev	.0005	.0164	.0002	.0004	.0001	.0000	.0004
%RSD	201.0	70.96	9.956	27.50	.6049	.8753	32.23
#1	-.0001	.0115	-.0017	.0017	.0195	.0002	-.0014
#2	.0006	.0347	-.0014	.0011	.0197	.0002	-.0009

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.14	.0002	.0020	.0003	.0020	-.0058	.0013
SDev	.21	.0001	.0011	.0008	.0002	.0070	.0033
%RSD	.5258	45.74	54.39	265.2	9.369	120.5	243.6
#1	39.29	.0002	.0012	.0008	.0021	-.0108	-.0010
#2	39.00	.0003	.0028	-.0003	.0018	-.0009	.0036

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0000	.0034	.0005	-.0001	.0609	.0312
SDev	.0009	.0000	.0053	.0000	.0005	.1768	.0067
%RSD	304.5	1.479	152.8	7.984	365.8	290.0	21.60
#1	-.0010	.0000	-.0003	.0005	.0002	-.0640	.0265
#2	.0004	.0000	.0072	.0005	-.0005	.1859	.0360

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0032	.0017	-.0009	-.0018	.0084	-.0002
SDev	.0008	.0001	.0029	.0013	.0008	.0007	.0004
%RSD	239.5	2.420	172.6	144.4	42.99	8.662	176.7
#1	.0002	.0031	-.0004	.0000	-.0013	.0079	.0001
#2	-.0009	.0032	.0037	-.0018	-.0024	.0089	-.0005

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	101.5	.0028	-.0002	3.161	-.0000	.0008	.0008
SDev	1.3	.0010	.0022	.003	.0001	.0011	.0001
%RSD	1.311	34.65	1164.	.0878	273.9	138.4	17.92
#1	100.5	.0021	.0014	3.163	-.0001	.0016	.0009
#2	102.4	.0035	-.0017	3.159	.0000	.0000	.0007

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0260	-.0024	-.0001	-.0004	.0199	-.0007	.0006
SDev	.0001	.0019	.0003	.0003	.0259	.0004	.0023
%RSD	.5404	81.76	584.4	74.11	129.6	53.76	361.8
#1	.0259	-.0010	.0002	-.0002	.0017	-.0004	-.0010
#2	.0261	-.0037	-.0003	-.0007	.0382	-.0009	.0023

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0009	-.0001
SDev	.0001	.0006	.0005
%RSD	754.2	75.99	765.4
#1	.0001	.0004	.0003
#2	-.0001	.0013	-.0004

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1024738	10000	--	--	--	--	--
SDev	13459.78	.0000000	--	--	--	--	--
%RSD	1.313485	.0000000	--	--	--	--	--
#1	1015220	10000	--	--	--	--	--
#2	1034255	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226217 Operator:
Run Time: 05/29/03 18:10:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	-.0031	-.0040	.0018	.0432	.0002	-.0034
SDev	.0002	.0013	.0008	.0021	.0001	.0000	.0003
%RSD	673.0	43.54	21.36	119.5	.3380	6.471	8.837
#1	-.0001	-.0021	-.0046	.0032	.0433	.0002	-.0032
#2	.0002	-.0040	-.0034	.0003	.0431	.0002	-.0036

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	45.73	-.0000	.0020	.0013	.0017	.0012	.0307
SDev	.12	.0001	.0002	.0010	.0008	.0230	.0339
%RSD	.2673	342.8	10.21	81.90	45.58	1995.	110.5
#1	45.64	-.0001	.0018	.0020	.0023	-.0151	.0067
#2	45.82	.0000	.0021	.0005	.0012	.0174	.0546

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0001	.0013	.0018	.0000	.0975	.0312
SDev	.0007	.0001	.0035	.0002	.0002	.2912	.0041
%RSD	191.4	108.3	275.2	9.119	951.2	298.6	13.03
#1	-.0009	.0000	-.0012	.0019	.0002	-.1084	.0283
#2	.0001	.0002	.0037	.0017	-.0001	.3034	.0341

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0070	-.0036	.0026	-.0003	.0075	.0063
SDev	.0005	.0008	.0020	.0036	.0050	.0070	.0015
%RSD	77.25	10.94	54.12	141.6	1565.	92.58	23.66
#1	.0010	.0076	-.0050	.0051	-.0039	.0026	.0053
#2	.0003	.0065	-.0022	-.0000	.0032	.0125	.0074

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.80	-.0032	.0038	3.617	.0005	.0015	.0010
SDev	1.09	.0085	.0023	.002	.0018	.0013	.0002
%RSD	1.115	264.8	59.32	.0633	340.8	88.82	17.80
#1	98.58	-.0092	.0054	3.615	.0018	.0006	.0009
#2	97.03	.0028	.0022	3.618	-.0007	.0024	.0012

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0302	.0021	.0001	.0017	.2205	.0000	.0019
SDev	.0000	.0049	.0001	.0015	.0145	.0006	.0001
%RSD	.0970	237.1	155.1	90.84	6.588	1424.	7.617
#1	.0302	.0055	.0002	.0028	.2102	.0005	.0018
#2	.0302	-.0014	-.0000	.0006	.2307	-.0004	.0020

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0002	.0008	.0001
SDev	.0002	.0001	.0003
%RSD	84.59	14.10	367.8
#1	.0003	.0009	.0003
#2	.0001	.0007	-.0002

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	987804	10000	--	--	--	--	--
SDev	10973.59	.0000000	--	--	--	--	--
%RSD	1.110908	.0000000	--	--	--	--	--
#1	995563	10000	--	--	--	--	--
#2	980044	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCV3 Operator:
Run Time: 05/29/03 18:19:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9878	9.812	4.936	4.837	9.739	.9653	5.079
SDev	.0003	.046	.018	.032	.083	.0077	.029
%RSD	.0292	.4712	.3680	.6581	.8569	.8019	.5759
#1	.9880	9.779	4.949	4.815	9.680	.9708	5.058
#2	.9876	9.844	4.924	4.860	9.798	.9598	5.100
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.100	11.00	5.500	5.500	11.00	1.100	5.500
Low	.9000	9.000	4.500	4.500	9.000	.9000	4.500

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.63	1.009	4.972	1.907	1.960	10.23	18.59
SDev	.25	.007	.045	.019	.018	.15	.27
%RSD	1.272	.7393	.9110	.9843	.9082	1.474	1.440
#1	19.81	1.014	5.004	1.920	1.948	10.33	18.40
#2	19.45	1.004	4.940	1.894	1.973	10.12	18.78
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	22.00	1.100	5.500	2.200	2.200	11.00	22.00
Low	18.00	.9000	4.500	1.800	1.800	9.000	18.00

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.936	4.843	19.88	1.007	5.105	27.86	H40.98
SDev	.022	.058	.15	.006	.011	.13	.54
%RSD	.4437	1.205	.7644	.6177	.2188	.4629	1.319
#1	4.921	4.802	19.99	1.011	5.097	27.77	H40.60
#2	4.952	4.884	19.77	1.002	5.113	27.95	H41.36
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	5.500	22.00	1.100	5.500	33.00	33.00
Low	4.500	4.500	18.00	.9000	4.500	27.00	27.00

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.735	5.028	4.941	4.977	.9951	1.010	.9920
SDev	.040	.023	.132	.007	.0039	.015	.0037
%RSD	.8379	.4566	2.663	.1493	.3920	1.493	.3742
#1	4.763	5.012	5.034	4.972	.9924	.9992	.9946
#2	4.707	5.045	4.848	4.982	.9979	1.021	.9893
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	5.500	5.500			1.100	1.100	1.100
Low	4.500	4.500			.9000	.9000	.9000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.1	5.154	5.209	5.056	4.965	5.191	4.910
SDev	2.3	.151	.071	.012	.039	.003	.034
%RSD	2.249	2.925	1.355	.2325	.7834	.0615	.6827
#1	98.49	5.260	5.160	5.064	4.992	5.193	4.934
#2	101.7	5.047	5.259	5.048	4.937	5.189	4.887
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				5.500	5.500	5.500	5.500
Low				4.500	4.500	4.500	4.500

Elem	Sr4215	Th2837	Ti3349	Tl1908	U 4090	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.096	.9681	4.834	5.181	.9569	4.929	H1.307
SDev	.020	.0074	.007	.004	.0066	.023	.012
%RSD	.3967	.7650	.1379	.0787	.6848	.4614	.8811
#1	5.082	.9734	4.829	5.183	.9522	4.945	H1.316
#2	5.111	.9629	4.838	5.178	.9615	4.913	H1.299
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	1.100	5.500	5.500	1.100	5.500	1.100
Low	4.500	.9000	4.500	4.500	.9000	4.500	.9000

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.854	.9959	4.882
SDev	.010	.0152	.025
%RSD	.1984	1.522	.5073
#1	4.847	1.007	4.865
#2	4.861	.9852	4.900
Errors	LC Pass	LC Pass	LC Pass
High	5.500	1.100	5.500
Low	4.500	.9000	4.500

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1010726	10000	--	--	--	--	--
SDev	22773.08	.0000000	--	--	--	--	--
%RSD	2.253141	.0000000	--	--	--	--	--
#1	994623	10000	--	--	--	--	--
#2	1026829	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCB3 Operator:
Run Time: 05/29/03 18:25:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0082	.0010	.0091	.0003	.0002	.0016
SDev	.0011	.0059	.0008	.0001	.0000	.0000	.0045
%RSD	950.1	71.93	79.05	.7016	3.498	3.418	274.4
#1	-.0007	-.0124	.0015	.0090	.0003	.0002	-.0016
#2	.0009	-.0040	.0004	.0091	.0003	.0002	.0048
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0107	.0001	.0006	.0014	.0014	.0141	.0144
SDev	.0033	.0003	.0010	.0015	.0010	.0264	.0336
%RSD	31.23	194.3	154.1	109.1	72.10	187.9	233.1
#1	-.0130	-.0000	-.0001	.0003	.0007	-.0046	-.0093
#2	-.0083	.0003	.0013	.0024	.0020	H.0327	.0381
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0003	.0010	.0001	.0037	.0157	.0121
SDev	.0011	.0000	.0067	.0001	.0001	.2621	.0013
%RSD	501.7	8.894	645.3	118.1	1.745	1667.	10.93
#1	-.0006	.0002	-.0037	.0000	.0036	L-.1696	.0112
#2	.0010	.0003	.0058	.0001	.0037	H.2011	.0131
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0016	.0012	.0007	.0010	-.0027	.0008
SDev	.0007	.0001	.0056	.0031	.0075	.0032	.0033
%RSD	178.7	4.172	453.6	472.2	733.3	116.4	422.9
#1	-.0001	.0016	-.0027	.0029	-.0043	-.0005	-.0016
#2	.0008	.0015	.0052	-.0015	H.0063	-.0050	.0031
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.2	.0016	.0018	.0056	.0009	.0017	.0010
SDev	1.8	.0006	.0028	.0037	.0002	.0017	.0002
%RSD	1.806	35.90	161.4	66.47	24.52	98.12	17.67
#1	101.5	.0012	.0037	.0030	.0010	.0029	.0011
#2	98.97	.0020	-.0002	.0082	.0007	.0005	.0008
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	T11908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0025	.0003	.0026	-.0006	-.0000	.0010
SDev	.0000	.0035	.0003	.0018	.0384	.0011	.0013
%RSD	56.29	143.1	78.44	68.39	6307.	36390.	123.0
#1	.0001	-.0000	.0002	.0039	-.0278	-.0008	.0001
#2	.0000	.0049	.0005	.0014	.0265	.0007	.0019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0003	-.0009	.0009
SDev	.0001	.0004	.0010
%RSD	36.90	39.34	119.6
#1	.0002	-.0012	.0001
#2	.0003	-.0007	.0016
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1012452	10000	--	--	--	--	--
SDev	18200.93	.0000000	--	--	--	--	--
%RSD	1.797708	.0000000	--	--	--	--	--
#1	1025322	10000	--	--	--	--	--
#2	999582	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226218 Operator:
Run Time: 05/29/03 18:30:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	-.0057	-.0004	.0045	.0334	.0002	.0003
SDev	.0013	.0005	.0006	.0010	.0000	.0000	.0020
%RSD	144.0	9.267	153.1	23.59	.0235	6.204	615.4
#1	.0000	-.0053	-.0008	.0052	.0334	.0002	.0017
#2	-.0018	-.0061	.0000	.0037	.0334	.0002	-.0011

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	40.04	.0001	.0014	-.0000	.0013	-.0020	.0183
SDev	.08	.0003	.0004	.0013	.0005	.0081	.0040
%RSD	.2037	378.5	26.01	20500.	35.96	395.4	21.78
#1	40.10	.0003	.0016	.0009	.0016	.0037	.0211
#2	39.98	-.0001	.0011	-.0009	.0010	-.0077	.0155

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	.0001	-.0028	.0007	.0010	.0663	.0161
SDev	.0006	.0000	.0040	.0001	.0003	.0811	.0015
%RSD	54.98	14.96	143.1	18.39	34.48	122.4	9.504
#1	-.0006	.0002	.0000	.0007	.0012	.1237	.0150
#2	-.0015	.0001	-.0056	.0006	.0007	.0089	.0172

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0055	-.0008	.0029	-.0012	.0090	-.0031
SDev	.0011	.0179	.0016	.0003	.0017	.0051	.0037
%RSD	137.3	326.4	194.7	9.656	134.8	56.32	121.4
#1	-.0000	-.0072	.0003	.0031	-.0001	.0054	-.0004
#2	-.0016	.0181	-.0020	.0027	-.0024	.0126	-.0057

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.34	.0018	.0010	3.156	.0016	.0013	-.0001
SDev	.58	.0006	.0008	.000	.0007	.0007	.0017
%RSD	.6053	32.25	80.06	.0008	43.93	57.18	1354.
#1	95.93	.0014	.0004	3.156	.0022	.0008	.0011
#2	96.75	.0022	.0016	3.156	.0011	.0018	-.0013

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0262	-.0000	-.0000	.0006	.0703	-.0005	.0007
SDev	.0000	.0032	.0003	.0038	.0262	.0008	.0028
%RSD	.0169	8066.	2102.	611.7	37.31	161.5	396.1
#1	.0263	.0022	.0002	.0033	.0889	.0001	.0027
#2	.0262	-.0023	-.0002	-.0020	.0518	-.0011	-.0013

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0003	-.0004
SDev	.0002	.0003	.0009
%RSD	258.3	93.41	214.2
#1	.0001	.0005	.0002
#2	-.0002	.0001	-.0010

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	973004	10000	--	--	--	--	--
SDev	5891.614	.0000000	--	--	--	--	--
%RSD	.6055077	.0000000	--	--	--	--	--
#1	968838	10000	--	--	--	--	--
#2	977170	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226219 Operator:
Run Time: 05/29/03 18:35:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0172	.0011	.0035	.0389	.0002	.0011
SDev	.0002	.0113	.0003	.0011	.0000	.0000	.0027
%RSD	48.43	65.72	29.50	30.84	.1047	8.481	233.2
#1	-.0006	.0092	.0014	.0043	.0389	.0002	-.0007
#2	-.0003	.0253	.0009	.0027	.0389	.0002	.0030

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.89	-.0000	-.0001	.0010	.0013	-.0083	.0053
SDev	.28	.0001	.0000	.0003	.0000	.0018	.0086
%RSD	.7044	527.8	27.05	25.36	1.213	21.39	163.4
#1	40.09	-.0001	-.0001	.0012	.0013	-.0071	-.0008
#2	39.69	.0001	-.0002	.0008	.0013	-.0096	.0114

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	.0001	.0029	.0007	.0007	.0244	.0264
SDev	.0000	.0000	.0025	.0000	.0003	.0325	.0077
%RSD	1.700	36.96	85.70	3.776	43.48	132.9	29.08
#1	-.0007	.0001	.0011	.0008	.0005	.0015	.0210
#2	-.0006	.0001	.0046	.0007	.0010	.0474	.0318

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0060	-.0028	.0019	-.0031	.0112	.0020
SDev	.0006	.0016	.0036	.0003	.0011	.0062	.0046
%RSD	120.4	26.73	129.4	17.90	34.49	55.01	231.3
#1	.0009	.0072	-.0053	.0017	-.0039	.0156	.0053
#2	.0001	.0049	-.0002	.0021	-.0024	.0069	-.0013

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.63	.0018	.0022	3.187	.0003	.0021	-.0003
SDev	1.47	.0028	.0028	.001	.0014	.0028	.0002
%RSD	1.480	150.8	125.2	.0309	415.1	132.1	56.15
#1	98.59	.0038	.0042	3.186	-.0007	.0041	-.0004
#2	100.7	-.0001	.0003	3.187	.0014	.0001	-.0002

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0265	.0027	.0000	.0007	.0904	-.0003	.0011
SDev	.0001	.0028	.0002	.0004	.0001	.0003	.0017
%RSD	.1735	104.2	477.5	52.84	.0939	99.98	145.7
#1	.0265	.0047	.0002	.0010	.0903	-.0001	.0023
#2	.0266	.0007	-.0001	.0004	.0904	-.0005	-.0000

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0005	.0001
SDev	.0001	.0002	.0003
%RSD	189.0	41.60	254.6
#1	.0001	.0004	.0004
#2	-.0000	.0007	-.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1006194	10000	--	--	--	--	--
SDev	14865.51	.0000000	--	--	--	--	--
%RSD	1.477399	.0000000	--	--	--	--	--
#1	995683	10000	--	--	--	--	--
#2	1016706	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226220 Operator:
Run Time: 05/29/03 18:39:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0007	-.0016	.0027	.0391	.0002	.0020
SDev	.0008	.0056	.0010	.0000	.0001	.0000	.0038
%RSD	338.4	756.2	65.41	.9222	.1764	1.999	193.3
#1	-.0008	-.0047	-.0023	.0027	.0392	.0002	-.0007
#2	.0003	.0032	-.0008	.0027	.0391	.0002	.0047

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	40.94	.0002	.0024	-.0003	.0008	.0102	.0503
SDev	.16	.0001	.0002	.0011	.0003	.0152	.0115
%RSD	.3805	33.76	10.00	441.1	33.23	148.8	22.87
#1	40.83	.0002	.0022	-.0011	.0006	-.0005	.0422
#2	41.05	.0002	.0026	.0005	.0010	.0209	.0584

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0001	.0017	.0008	.0003	.1889	.0218
SDev	.0007	.0000	.0036	.0001	.0003	.0139	.0012
%RSD	1603.	27.64	209.1	10.17	96.64	7.336	5.483
#1	-.0005	.0001	-.0008	.0008	.0001	.1987	.0227
#2	.0005	.0002	.0042	.0009	.0005	.1791	.0210

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0085	-.0014	.0005	.0002	.0088	-.0018
SDev	.0006	.0047	.0022	.0009	.0039	.0002	.0004
%RSD	188.3	55.00	165.0	180.7	1661.	1.966	19.25
#1	-.0008	.0118	-.0030	.0011	-.0025	.0087	-.0016
#2	.0001	.0052	.0002	-.0001	.0030	.0090	-.0021

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.61	.0016	.0009	3.238	-.0001	.0011	-.0006
SDev	1.51	.0005	.0011	.001	.0002	.0006	.0001
%RSD	1.551	30.31	129.6	.0187	141.1	54.14	9.166
#1	98.68	.0012	.0017	3.238	-.0002	.0016	-.0006
#2	96.54	.0019	.0001	3.239	-.0000	.0007	-.0006

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0268	-.0020	-.0002	-.0006	.1389	-.0012	.0020
SDev	.0000	.0013	.0001	.0019	.0238	.0005	.0009
%RSD	.1002	62.84	91.82	318.9	17.10	39.13	45.99
#1	.0268	-.0029	-.0003	-.0019	.1221	-.0015	.0027
#2	.0268	-.0011	-.0001	.0007	.1557	-.0008	.0014

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0005	-.0004
SDev	.0001	.0002	.0005
%RSD	153.9	51.65	117.0
#1	-.0001	.0003	-.0008
#2	.0000	.0006	-.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	985801	10000	--	--	--	--	--
SDev	15259.36	.0000000	--	--	--	--	--
%RSD	1.547915	.0000000	--	--	--	--	--
#1	996591	10000	--	--	--	--	--
#2	975011	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226221 Operator:
Run Time: 05/29/03 18:44:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0045	-.0007	.0020	.0400	.0002	.0003
SDev	.0001	.0016	.0003	.0006	.0000	.0000	.0024
%RSD	19.99	34.29	37.88	28.36	.0205	7.559	768.4
#1	-.0003	-.0056	-.0009	.0024	.0400	.0002	-.0014
#2	-.0005	-.0034	-.0005	.0016	.0400	.0003	.0020

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	41.02	.0001	-.0001	-.0001	.0012	-.0037	.0279
SDev	.01	.0001	.0002	.0001	.0001	.0049	.0049
%RSD	.0144	139.8	154.2	77.37	4.744	131.9	17.55
#1	41.03	.0000	.0000	-.0002	.0012	-.0072	.0314
#2	41.02	.0001	-.0003	-.0001	.0013	-.0002	.0245

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0001	.0010	.0011	.0009	.0819	.0347
SDev	.0001	.0000	.0017	.0000	.0003	.1056	.0022
%RSD	71.06	2.969	164.2	4.055	38.12	128.9	6.267
#1	-.0001	.0001	.0022	.0010	.0007	.1565	.0363
#2	-.0002	.0001	-.0002	.0011	.0011	.0072	.0332

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	-.0010	-.0000	.0006	-.0010	.0102	.0016
SDev	.0001	.0086	.0005	.0009	.0007	.0030	.0021
%RSD	22.13	869.6	1052.	155.3	73.57	28.98	128.3
#1	-.0005	-.0071	.0003	.0012	-.0005	.0081	.0031
#2	-.0007	.0051	-.0004	-.0001	-.0015	.0123	.0001

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.0	.0044	.0005	3.276	.0004	.0018	.0007
SDev	.7	.0022	.0025	.003	.0007	.0009	.0006
%RSD	.6700	51.46	500.1	.0859	198.1	50.49	84.32
#1	100.5	.0028	.0022	3.274	.0009	.0024	.0011
#2	99.53	.0059	-.0013	3.278	-.0001	.0012	.0003

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0275	-.0016	-.0000	.0002	.1407	-.0006	.0004
SDev	.0000	.0007	.0001	.0008	.0024	.0002	.0002
%RSD	.0629	43.58	224.9	361.9	1.725	35.29	51.52
#1	.0275	-.0011	.0000	.0008	.1390	-.0005	.0003
#2	.0275	-.0021	-.0001	-.0004	.1424	-.0008	.0006

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0005	-.0005
SDev	.0000	.0002	.0001
%RSD	18.32	33.13	12.90
#1	.0001	.0004	-.0005
#2	.0000	.0006	-.0004

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1010021	10000	--	--	--	--	--
SDev	6796.710	.0000000	--	--	--	--	--
%RSD	.6729276	.0000000	--	--	--	--	--
#1	1014827	10000	--	--	--	--	--
#2	1005215	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCV4 Operator:
Run Time: 05/29/03 18:52:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9873	9.816	4.947	4.834	9.716	.9681	5.076
SDev	.0009	.021	.003	.027	.024	.0026	.009
%RSD	.0906	.2176	.0619	.5610	.2492	.2711	.1843
#1	.9879	9.801	4.945	4.815	9.699	.9699	5.070
#2	.9866	9.831	4.949	4.854	9.733	.9662	5.083
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.100	11.00	5.500	5.500	11.00	1.100	5.500
Low	.9000	9.000	4.500	4.500	9.000	.9000	4.500

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.72	1.010	4.988	1.912	1.956	10.27	18.58
SDev	.11	.003	.009	.007	.010	.00	.18
%RSD	.5515	.2876	.1894	.3883	.4896	.0011	.9884
#1	19.79	1.012	4.995	1.917	1.950	10.27	18.45
#2	19.64	1.008	4.981	1.906	1.963	10.27	18.71
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	22.00	1.100	5.500	2.200	2.200	11.00	22.00
Low	18.00	.9000	4.500	1.800	1.800	9.000	18.00

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.929	4.829	19.93	1.009	5.113	28.07	H40.90
SDev	.005	.019	.03	.002	.012	.47	.25
%RSD	.0977	.3975	.1625	.2230	.2324	1.668	.6049
#1	4.926	4.815	19.95	1.011	5.105	27.74	H40.73
#2	4.933	4.842	19.90	1.008	5.122	28.40	H41.08
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	5.500	22.00	1.100	5.500	33.00	33.00
Low	4.500	4.500	18.00	.9000	4.500	27.00	27.00

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.747	5.085	5.053	5.017	1.001	1.019	.9880
SDev	.008	.010	.003	.051	.008	.008	.0044
%RSD	.1727	.1968	.0508	1.016	.7787	.8114	.4454
#1	4.753	5.092	5.052	5.053	.9951	1.025	.9849
#2	4.741	5.077	5.055	4.981	1.006	1.013	.9911
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	5.500	5.500			1.100	1.100	1.100
Low	4.500	4.500			.9000	.9000	.9000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.14	5.289	5.231	5.062	5.029	5.251	4.925
SDev	3.00	.061	.028	.008	.033	.001	.001
%RSD	3.027	1.150	.5426	.1621	.6588	.0258	.0239
#1	97.02	5.246	5.251	5.056	5.053	5.250	4.926
#2	101.3	5.332	5.211	5.068	5.006	5.252	4.924
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				5.500	5.500	5.500	5.500
Low				4.500	4.500	4.500	4.500

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.099	.9753	4.834	5.200	.9541	4.933	H1.308
SDev	.007	.0045	.004	.012	.0134	.008	.000
%RSD	.1436	.4660	.0846	.2375	1.399	.1557	.0130
#1	5.094	.9785	4.831	5.192	.9447	4.938	H1.309
#2	5.104	.9721	4.837	5.209	.9635	4.927	H1.308
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	1.100	5.500	5.500	1.100	5.500	1.100
Low	4.500	.9000	4.500	4.500	.9000	4.500	.9000

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.845	1.004	4.882
SDev	.002	.006	.010
%RSD	.0475	.6287	.1961
#1	4.843	1.009	4.875
#2	4.847	.9996	4.889
Errors	LC Pass	LC Pass	LC Pass
High	5.500	1.100	5.500
Low	4.500	.9000	4.500

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1001268	10000	--	--	--	--	--
SDev	30393.57	.0000000	--	--	--	--	--
%RSD	3.035510	.0000000	--	--	--	--	--
#1	979776	10000	--	--	--	--	--
#2	1022759	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCB4 Operator:
Run Time: 05/29/03 18:59:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	-.0061	.0002	.0103	.0014	.0004	-.0003
SDev	.0010	.0056	.0010	.0001	.0015	.0001	.0037
%RSD	183.8	92.68	395.6	1.253	110.0	42.66	1327.
#1	.0012	-.0021	-.0004	.0104	.0024	.0005	.0023
#2	-.0002	-.0101	.0009	.0102	.0003	.0003	-.0029
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0018	.0003	.0025	.0016	.0016	H.0346	.0402
SDev	.0045	.0001	.0016	.0012	.0009	.0442	.0434
%RSD	251.7	30.02	62.83	71.43	58.37	127.7	108.1
#1	.0050	.0004	.0036	.0008	.0009	H.0658	.0709
#2	-.0014	.0002	.0014	.0025	.0023	.0034	.0094
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0007	.0075	.0002	.0045	H.4004	.0165
SDev	.0023	.0008	.0067	.0001	.0008	.3213	.0124
%RSD	166.0	104.4	89.16	24.28	18.70	80.23	75.34
#1	.0031	.0013	.0123	.0002	H.0051	H.6276	.0252
#2	-.0002	.0002	.0028	.0002	.0039	H.1733	.0077
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0039	-.0045	.0036	H.0056	.0028	.0001
SDev	.0001	.0070	.0064	.0036	.0059	.0050	.0045
%RSD	17.78	182.4	143.3	99.00	105.3	181.1	3928.
#1	.0005	.0088	.0001	.0011	H.0098	-.0008	-.0030
#2	.0006	-.0011	-.0090	.0062	.0014	.0063	.0033
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC High	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.77	.0019	.0025	.0063	.0010	.0023	.0011
SDev	.16	.0036	.0008	.0035	.0003	.0006	.0006
%RSD	.1682	184.7	32.98	56.06	28.53	27.98	59.47
#1	97.65	.0045	.0019	.0088	.0008	.0028	.0015
#2	97.89	-.0006	.0031	.0038	.0012	.0019	.0006
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	T11908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0037	.0008	.0026	.0103	.0011	.0023
SDev	.0009	.0068	.0003	.0025	.0302	.0003	.0015
%RSD	139.4	185.6	34.51	96.86	294.0	26.62	65.05
#1	.0013	-.0012	.0010	.0044	.0317	.0009	.0033
#2	.0000	.0085	.0006	.0008	-.0111	.0013	.0012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0008	-.0001	.0017
SDev	.0006	.0001	.0001
%RSD	71.97	45.89	4.302
#1	.0012	-.0001	.0016
#2	.0004	-.0002	.0017
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	987462	10000	--	--	--	--	--
SDev	1570.484	.0000000	--	--	--	--	--
%RSD	.1590424	.0000000	--	--	--	--	--
#1	986352	10000	--	--	--	--	--
#2	988573	10000	--	--	--	--	--

010286

Standardization Rpt. , 05/29/03 07:08:26 PM page 1

Method: DAILY2 Standard: blk
Run Time: 05/29/03 19:03:57

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Avge	-.0000	.0003	-.0001	.0001	-.0000	.0000	-.0000
SDev	.0000	.0000	.0000	.0000	.0000	.0000	.0000
%RSD	69.44	.1291	3.010	9.956	80.50	10.39	174.9
#1	-.0001	.0003	-.0001	.0001	-.0000	.0000	-.0000
#2	-.0000	.0003	-.0001	.0001	-.0000	.0000	.0000

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Avge	.0001	-.0000	-.0000	.0000	.0004	.0000	.0002
SDev	.0000	.0000	.0000	.0000	.0000	.0000	.0000
%RSD	5.537	50.18	37.99	276.9	2.841	1032.	9.270
#1	.0001	-.0000	-.0000	-.0000	.0004	-.0000	.0001
#2	.0001	-.0000	-.0000	.0000	.0004	.0000	.0002

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Avge	-.0000	.0001	-.0000	.0000	.0000	-.0002	-.0085
SDev	.0000	.0000	.0000	.0000	.0000	.0000	.0004
%RSD	29.08	12.70	51.42	70.08	44.40	13.57	4.181
#1	-.0001	.0001	-.0000	.0000	.0001	-.0002	-.0087
#2	-.0000	.0001	-.0000	.0000	.0000	-.0002	-.0082

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Avge	.0000	.0000	-.0001	.0001	-.0000	.0001	-.0014
SDev	.0000	.0000	.0002	.0000	.0000	.0000	.0000
%RSD	64.61	4.978	178.7	32.10	261.7	7.320	2.019
#1	.0000	.0000	.0000	.0001	-.0001	.0001	-.0014
#2	.0000	.0000	-.0002	.0001	.0000	.0001	-.0013

Elem	Sc3613	1960/1	1960/2	Si2881	Sn1899	Sr4215	Th2837
Avge	100.7	-.0004	.0003	.0018	.0000	-.0000	.0000
SDev	.8	.0001	.0001	.0001	.0000	.0000	.0000
%RSD	.8283	32.05	32.50	5.867	394.9	181.3	16.54
#1	100.1	-.0005	.0002	.0017	.0000	-.0000	.0000
#2	101.3	-.0003	.0003	.0018	-.0000	.0000	.0000

Elem	Ti3349	Tl1908	U 4090	V 2924	W 2079	Y 3710	Zn2062
Avge	-.0001	-.0003	-.0004	-.0000	.0002	.0000	.0000
SDev	.0000	.0001	.0000	.0000	.0001	.0000	.0000
%RSD	46.17	19.42	8.825	22.13	54.22	126.4	21.02
#1	-.0001	-.0003	-.0005	-.0000	.0001	.0000	.0000
#2	-.0001	-.0002	-.0004	-.0000	.0003	.0000	.0000

Elem	Zr3496
Avge	.0003
SDev	.0001
%RSD	28.71
#1	.0002
#2	.0003

6/9/03

5-29-03

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1006774	10000	--	--	--	--	--
SDev	8406.793	.0000000	--	--	--	--	--
%RSD	.8350232	.0000000	--	--	--	--	--
#1	1000829	10000	--	--	--	--	--
#2	1012718	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 07:12:45 PM page 1

Method: DAILY2 Standard: clp_std4
Run Time: 05/29/03 19:08:37

Elem	Ag3280	As1890	2203/1	2203/2	Sb2068	1960/1	1960/2
Avge	.0809	.1424	.3725	.3127	.2164	.3332	.3264
SDev	.0001	.0001	.0014	.0006	.0003	.0005	.0012
%RSD	.1521	.0909	.3621	.2036	.1523	.1461	.3735
#1	.0810	.1423	.3734	.3132	.2162	.3335	.3255
#2	.0808	.1425	.3715	.3123	.2166	.3328	.3273

Elem	T11908
Avge	.2785
SDev	.0001
%RSD	.0333
#1	.2785
#2	.2786

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1072130	10000	--	--	--	--	--
SDev	7153.092	.0000000	--	--	--	--	--
%RSD	.6671851	.0000000	--	--	--	--	--
#1	1067072	10000	--	--	--	--	--
#2	1077188	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 07:16:21 PM page 1

Method: DAILY2 Standard: clp_std1
Run Time: 05/29/03 19:12:56

Elem	Al3082	Ca3179	Fe2714	K 7664	Li6707	Mg2790	Na3302
Avge	.1150	.2066	.1088	.1731	2.884	.0931	.0094
SDev	.0002	.0001	.0000	.0004	.009	.0000	.0000
%RSD	.2016	.0728	.0405	.2234	.3184	.0320	.0053
#1	.1152	.2065	.1088	.1734	2.890	.0931	.0094
#2	.1148	.2067	.1087	.1729	2.877	.0932	.0094

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	981814	10000	--	--	--	--	--
SDev	1605.132	.0000000	--	--	--	--	--
%RSD	.1634864	.0000000	--	--	--	--	--
#1	982949	10000	--	--	--	--	--
#2	980679	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 07:19:57 PM page 1

Method: DAILY2 Standard: clp std5
Run Time: 05/29/03 19:16:32

Elem	B_2496	Bi2230	Mo2020	P 1782	Si2881	Sn1899	Sr4215
Avge	.1924	.0412	.4502	.0216	.1740	.2036	2.448
SDev	.0009	.0001	.0025	.0003	.0003	.0001	.001
%RSD	.4569	.2040	.5530	1.501	.1475	.0739	.0437
#1	.1918	.0411	.4485	.0213	.1742	.2035	2.447
#2	.1931	.0412	.4520	.0218	.1739	.2037	2.449

Elem	Ti3349
Avge	2.785
SDev	.001
%RSD	.0462
#1	2.786
#2	2.784

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1020893	10000	--	--	--	--	--
SDev	1309.562	.0000000	--	--	--	--	--
%RSD	.1282761	.0000000	--	--	--	--	--
#1	1021819	10000	--	--	--	--	--
#2	1019967	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 07:23:11 PM page 1

Method: DAILY2 Standard: clp_std2
Run Time: 05/29/03 19:20:08

Elem	Ba4934	Be3130	Cr2677	Cu3247	Ni2316
Avge	1.066	1.369	.4673	.3254	.4210
SDev	.004	.002	.0005	.0020	.0007
%RSD	.3684	.1301	.1112	.6218	.1688
#1	1.069	1.367	.4677	.3269	.4205
#2	1.063	1.370	.4669	.3240	.4215

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	978004	10000	--	--	--	--	--
SDev	9046.017	.0000000	--	--	--	--	--
%RSD	.9249464	.0000000	--	--	--	--	--
#1	984401	10000	--	--	--	--	--
#2	971608	10000	--	--	--	--	--

Standardization Rpt. , 05/29/03 07:26:47 PM page 1

Method: DAILY2 Standard: clp std3
Run Time: 05/29/03 19:23:22

Elem	Cd2265	Co2286	Mn2576	V 2924	Zn2062
Avge	1.160	.2588	.9706	.2030	.3700
SDev	.009	.0018	.0056	.0008	.0050
%RSD	.8039	.6962	.5746	.4041	1.349
#1	1.166	.2601	.9745	.2036	.3735
#2	1.153	.2575	.9667	.2024	.3665

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1009228	10000	--	--	--	--	--
SDev	29939.61	.0000000	--	--	--	--	--
%RSD	2.966584	.0000000	--	--	--	--	--
#1	988058	10000	--	--	--	--	--
#2	1030399	10000	--	--	--	--	--

Standardization Rpt. 05/29/03 07:30:45 PM page 1

Method: DAILY2 Standard: clp_std6
Run Time: 05/29/03 19:26:59

Elem	La3988	Na5889	Pd3404	S 1820	Th2837	U 4090	W 2079
Avge	.4784	.0472	.2154	.0407	.1222	.0759	.1798
SDev	.0021	.0016	.0013	.0002	.0003	.0007	.0013
%RSD	.4301	3.482	.6071	.4331	.2605	.9018	.7274
#1	.4769	.0460	.2145	.0406	.1224	.0754	.1807
#2	.4798	.0484	.2163	.0408	.1219	.0764	.1789

Elem	Y 3710	Zr3496
Avge	.8056	2.031
SDev	.0004	.009
%RSD	.0463	.4266
#1	.8054	2.024
#2	.8059	2.037

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1000902	10000	--	--	--	--	--
SDev	28044.56	.0000000	--	--	--	--	--
%RSD	2.801930	.0000000	--	--	--	--	--
#1	981071	10000	--	--	--	--	--
#2	1020732	10000	--	--	--	--	--

Standardization Report 05/29/03 07:30:45 PM page 1

Method: DAILY2 Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag3280	328.068	clp_std4	blk	24.7038	.000911	05/29/03 07:26:59
Al3082	308.215	clp_std1	blk	435.942	-.130120	05/29/03 07:26:59
As1890	189.042	clp_std4	blk	70.1832	.004532	05/29/03 07:26:59
B_2496	249.678	clp_std5	blk	51.9953	-.006092	05/29/03 07:26:59
Ba4934	493.409	clp_std2	blk	9.37857	.000107	05/29/03 07:26:59
Be3130	313.042	clp_std2	blk	3.65367	-.000114	05/29/03 07:26:59
Bi2230	223.061	clp_std5	blk	120.413	.001506	05/29/03 07:26:59
Ca3179	317.933	clp_std1	blk	242.126	-.013344	05/29/03 07:26:59
Cd2265	226.502	clp_std3	blk	8.62140	.000107	05/29/03 07:26:59
Co2286	228.616	clp_std3	blk	38.6375	.001095	05/29/03 07:26:59
Cr2677	267.716	clp_std2	blk	21.3993	-.000179	05/29/03 07:26:59
Cu3247	324.753	clp_std2	blk	30.7631	-.011167	05/29/03 07:26:59
Fe2714	271.441	clp_std1	blk	460.012	-.000657	05/29/03 07:26:59
K_7664	766.491	clp_std1	blk	289.040	-.044196	05/29/03 07:26:59
La3988	398.853	clp_std6	blk	20.9204	.000884	05/29/03 07:26:59
Li6707	670.784	clp_std1	blk	3.46786	-.000198	05/29/03 07:26:59
Mg2790	279.078	clp_std1	blk	268.236	.007076	05/29/03 07:26:59
Mn2576	257.610	clp_std3	blk	10.3037	-.000122	05/29/03 07:26:59
Mo2020	202.030	clp_std5	blk	22.2164	-.000895	05/29/03 07:26:59
Na3302	330.232	clp_std1	blk	5198.68	1.14699	05/29/03 07:26:59
Na5889	588.991	clp_std6	blk	18.0625	.152803	05/29/03 07:26:59
Ni2316	231.604	clp_std2	blk	23.7542	-.000306	05/29/03 07:26:59
P_1782	178.287	clp_std5	blk	464.767	-.016846	05/29/03 07:26:59
2203/1	220.351	clp_std4	blk	26.8396	.002342	05/29/03 07:26:59
2203/2	220.352	clp_std4	blk	31.9854	-.002084	05/29/03 07:26:59
Pd3404	340.458	clp_std6	blk	47.6671	.000886	05/29/03 07:26:59
S_1820	182.040	clp_std6	blk	246.079	-.026650	05/29/03 07:26:59
Sb2068	206.838	clp_std4	blk	45.9180	.062649	05/29/03 07:26:59
Sc3613	361.384	blk	dark	.993191	.000000	05/29/03 07:26:59
1960/1	196.021	clp_std4	blk	29.9872	.011065	05/29/03 07:26:59
1960/2	196.022	clp_std4	blk	30.6641	-.008076	05/29/03 07:26:59
Si2881	288.158	clp_std5	blk	57.8296	-.102420	05/29/03 07:26:59
Pb220	220.353	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED
Se196	196.026	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED
Sn1899	189.989	clp_std5	blk	49.1369	-.000298	05/29/03 07:26:59
Sr4215	421.552	clp_std5	blk	4.08516	.000014	05/29/03 07:26:59
Th2837	283.730	clp_std6	blk	85.4632	-.002676	05/29/03 07:26:59
Ti3349	334.941	clp_std5	blk	3.59043	.000295	05/29/03 07:26:59
Tl1908	190.864	clp_std4	blk	35.8605	.010302	05/29/03 07:26:59
U_4090	409.014	clp_std6	blk	138.579	.059692	05/29/03 07:26:59
V_2924	292.402	clp_std3	blk	49.2493	.001787	05/29/03 07:26:59
W_2079	207.914	clp_std6	blk	27.8316	-.006178	05/29/03 07:26:59
Y_3710	371.030	clp_std6	blk	12.4104	-.000116	05/29/03 07:26:59
Zn2062	206.200	clp_std3	blk	27.0280	-.000470	05/29/03 07:26:59
Zr3496	349.621	clp_std6	blk	5.38388	-.001357	05/29/03 07:26:59

Analysis Report QC Standard 05/29/03 07:35:27 PM page 1

Method: DAILY2 Sample Name: ICV/CCV Operator:
Run Time: 05/29/03 19:30:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9971	9.893	5.005	4.834	9.905	.9681	5.076
SDev	.0001	.012	.005	.018	.010	.0001	.009
%RSD	.0133	.1185	.0906	.3697	.1003	.0116	.1690
#1	.9970	9.902	5.008	4.821	9.898	.9682	5.070
#2	.9972	9.885	5.002	4.846	9.912	.9680	5.082
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.000	10.00	5.000	5.000	10.00	1.000	5.000
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.01	1.034	5.054	1.911	1.985	10.28	18.56
SDev	.03	.001	.004	.001	.000	.00	.01
%RSD	.1482	.1063	.0716	.0679	.0030	.0016	.0614
#1	19.99	1.034	5.051	1.910	1.985	10.28	18.57
#2	20.03	1.035	5.056	1.912	1.985	10.28	18.55
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00	1.000	5.000	2.000	2.000	10.00	20.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.952	4.847	19.98	1.020	5.127	28.04	Q41.03
SDev	.001	.004	.01	.001	.015	.28	.10
%RSD	.0205	.0795	.0526	.1150	.2972	1.012	.2511
#1	4.952	4.850	19.99	1.019	5.117	28.24	Q41.10
#2	4.953	4.844	19.97	1.021	5.138	27.84	Q40.96
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	5.000	5.000	20.00	1.000	5.000	30.00	30.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.770	5.113	5.114	5.059	1.005	1.030	.9885
SDev	.012	.064	.008	.053	.000	.018	.0007
%RSD	.2568	1.255	.1660	1.041	.0306	1.791	.0663
#1	4.761	5.159	5.108	5.022	1.005	1.043	.9890
#2	4.778	5.068	5.120	5.097	1.005	1.017	.9880
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	5.000	5.000			1.000	1.000	1.000
Range	10.00	10.00			10.00	10.00	10.00

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.41	5.229	5.172	5.066	5.078	5.191	4.953
SDev	.27	.001	.081	.002	.038	.054	.013
%RSD	.2679	.0201	1.557	.0463	.7470	1.041	.2726
#1	99.60	5.228	5.115	5.064	5.051	5.153	4.943
#2	99.22	5.230	5.229	5.067	5.104	5.229	4.962
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value				5.000	5.000	5.000	5.000
Range				10.00	10.00	10.00	10.00

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.088	.9814	4.847	5.258	1.011	5.004	Q1.322
SDev	.002	.0033	.004	.013	.027	.007	.002
%RSD	.0414	.3326	.0763	.2427	2.687	.1320	.1178
#1	5.089	.9837	4.845	5.249	.9919	4.999	Q1.321
#2	5.086	.9791	4.850	5.267	1.030	5.008	Q1.323
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	5.000	1.000	5.000	5.000	1.000	5.000	1.000
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.883	1.028	4.851
SDev	.002	.003	.001
%RSD	.0508	.2799	.0122
#1	4.881	1.026	4.851
#2	4.885	1.030	4.850
Errors	QC Pass	QC Pass	QC Pass
Value	5.000	1.000	5.000
Range	10.00	10.00	10.00

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1000840	10000	--	--	--	--	--
SDev	2725.897	.0000000	--	--	--	--	--
%RSD	.2723610	.0000000	--	--	--	--	--
#1	1002767	10000	--	--	--	--	--
#2	998912	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: ICB/CCB Operator:
Run Time: 05/29/03 19:37:29
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0001	.0016	.0059	.0001	.0000	.0000
SDev	.0008	.0050	.0025	.0017	.0001	.0000	.0032
%RSD	898.0	3425.	158.2	29.24	80.57	348.4	6921.
#1	.0007	.0037	.0033	.0071	.0001	.0000	.0023
#2	-.0005	-.0034	-.0002	.0047	.0000	-.0000	-.0022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H.0839	.0001	.0003	-.0004	.0002	.0045	.0140
SDev	.0033	.0000	.0011	.0002	.0003	.0383	.0449
%RSD	3.974	23.80	362.6	50.79	142.0	846.9	320.7
#1	H.0862	.0002	.0011	-.0005	-.0000	H.0316	.0457
#2	H.0815	.0001	-.0005	-.0002	.0004	-.0226	-.0177
Errors	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0002	.0054	.0001	.0028	H.1809	.0054
SDev	.0016	.0001	.0116	.0000	.0011	.3544	.0014
%RSD	257.9	94.92	216.0	30.45	38.53	195.9	25.25
#1	.0017	.0003	.0136	.0001	.0035	H.4315	.0063
#2	-.0005	.0001	-.0028	.0001	.0020	L-.0697	.0044
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0041	.0081	-.0037	.0012	.0029	-.0041
SDev	.0002	.0063	.0016	.0006	.0094	.0038	.0072
%RSD	600.4	154.1	20.10	16.24	787.2	132.7	173.9
#1	-.0002	.0085	.0070	-.0033	H.0079	.0002	-.0092
#2	.0001	-.0004	.0093	-.0041	L-.0055	.0056	.0009
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.63	.0056	-.0032	.0020	.0002	-.0003	-.0001
SDev	1.78	.0010	.0004	.0026	.0001	.0000	.0012
%RSD	1.791	17.43	13.17	125.7	57.02	15.58	1338.
#1	98.37	.0049	-.0029	.0039	.0001	-.0003	.0008
#2	100.9	.0063	-.0035	.0002	.0003	-.0002	-.0010
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0015	.0000	.0017	.0062	-.0000	.0009
SDev	.0001	.0022	.0001	.0032	.0351	.0003	.0035
%RSD	110.6	143.8	250.8	193.7	566.5	574.8	396.7
#1	.0001	-.0000	-.0000	.0039	.0310	.0001	.0033
#2	.0000	.0030	.0001	-.0006	-.0186	-.0002	-.0016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0001	-.0000
SDev	.0000	.0003	.0001
%RSD	54.05	518.2	14480.
#1	-.0000	.0003	-.0000
#2	-.0000	-.0002	.0000
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1003010	10000	--	--	--	--	--
SDev	17870.71	.0000000	--	--	--	--	--
%RSD	1.781707	.0000000	--	--	--	--	--
#1	990374	10000	--	--	--	--	--
#2	1015647	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: pbw-E29W2 pq54-036 Operator:
Run Time: 05/29/03 19:42:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0020	.0132	.0033	.0027	.0002	.0000	H.0062
SDev	.0011	.0100	.0020	.0010	.0000	.0000	.0065
%RSD	54.92	76.09	62.27	36.44	11.70	450.6	106.0
#1	.0028	.0203	.0018	.0034	.0002	-.0000	H.0108
#2	.0012	.0061	.0047	.0020	.0002	.0000	.0015
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0127	.0004	.0008	.0002	.0009	H.0445	.0448
SDev	.0020	.0000	.0012	.0002	.0005	.0262	.0410
%RSD	15.47	9.809	140.1	100.8	53.46	58.83	91.63
#1	.0141	.0004	.0016	.0004	.0013	H.0631	.0738
#2	.0113	.0003	.0000	.0001	.0006	H.0260	.0158
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	.0002	.0185	.0002	.0004	H.4737	.0082
SDev	.0021	.0001	.0176	.0000	.0008	.3854	.0088
%RSD	99.70	65.93	94.94	5.000	186.3	81.36	107.9
#1	.0036	.0003	.0310	.0002	.0010	H.7463	.0144
#2	.0006	.0001	.0061	.0002	-.0001	H.2012	.0019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0072	.0076	-.0055	H.0082	-.0033	-.0016
SDev	.0009	.0014	.0074	.0027	.0084	.0035	.0019
%RSD	685.4	18.91	96.85	49.14	103.4	107.1	119.7
#1	-.0008	-.0082	.0128	-.0074	H.0141	-.0008	-.0002
#2	.0005	-.0063	.0024	-.0036	.0022	-.0057	-.0029
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC High	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.57	.0045	-.0031	H.0126	-.0011	-.0005	.0023
SDev	.27	.0004	.0013	.0059	.0007	.0010	.0014
%RSD	.2826	9.293	42.95	47.00	58.17	190.8	62.81
#1	95.38	.0042	-.0040	H.0169	-.0007	-.0013	.0033
#2	95.76	.0048	-.0021	.0084	-.0016	.0002	.0013
Errors	NOCHECK	NOCHECK	NOCHECK	LC High	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0018	-.0001	-.0019	.0698	-.0004	.0026
SDev	.0001	.0001	.0000	.0008	.0466	.0004	.0011
%RSD	23.95	3.871	32.30	42.04	66.77	103.3	42.66
#1	.0004	-.0018	-.0001	-.0013	H.1027	-.0001	.0033
#2	.0003	-.0019	-.0002	-.0025	.0368	-.0007	.0018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0003	.0002
SDev	.0001	.0001	.0000
%RSD	403.5	28.26	1.758
#1	-.0001	.0003	.0002
#2	.0000	.0002	.0002
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	962152	10000	--	--	--	--	--
SDev	2734.382	.0000000	--	--	--	--	--
%RSD	.2841942	.0000000	--	--	--	--	--
#1	960219	10000	--	--	--	--	--
#2	964086	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: lcsw-E29W2 Operator:
Run Time: 05/29/03 19:46:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0496	1.933	2.021	.0020	2.038	.0488	.0011
SDev	.0013	.003	.000	.0002	.008	.0002	.0063
%RSD	2.546	.1780	.0166	10.19	.3987	.4038	562.9
#1	.0505	1.936	2.021	.0021	2.032	.0489	.0056
#2	.0487	1.931	2.021	.0018	2.044	.0486	-.0033

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.21	.0518	.5055	.1936	.2499	1.081	17.20
SDev	.13	.0005	.0013	.0000	.0021	.039	.15
%RSD	.6291	.9349	.2547	.0220	.8413	3.605	.8761
#1	20.30	.0521	.5064	.1936	.2484	1.108	17.09
#2	20.12	.0514	.5046	.1936	.2514	1.053	17.31

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0002	20.49	.5095	-.0011	17.98	26.63
SDev	.0021	.0000	.06	.0013	.0005	.19	.28
%RSD	660.8	1.612	.2887	.2605	45.55	1.065	1.044
#1	.0012	.0002	20.54	.5104	-.0007	18.11	26.43
#2	-.0018	.0002	20.45	.5085	-.0014	17.84	26.82

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4839	-.0044	.5169	.5033	-.0020	.0100	.4931
SDev	.0020	.0005	.0018	.0001	.0047	.0055	.0042
%RSD	.4164	12.30	.3481	.0095	233.5	55.24	.8417
#1	.4854	-.0040	.5156	.5033	.0013	.0061	.4901
#2	.4825	-.0048	.5181	.5032	-.0054	.0138	.4960

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.72	2.074	2.019	4.166	.5078	2.037	.0006
SDev	1.69	.061	.000	.007	.0006	.020	.0015
%RSD	1.770	2.955	.0010	.1747	.1118	1.002	249.1
#1	94.52	2.031	2.019	4.171	.5074	2.023	.0017
#2	96.92	2.117	2.018	4.161	.5082	2.051	-.0005

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	-.0133	-.0000	2.096	-.0132	.5062	.0014
SDev	.0001	.0057	.0002	.007	.0512	.0004	.0019
%RSD	7.421	42.58	1064.	.3503	389.2	.0738	136.9
#1	.0008	-.0173	-.0001	2.101	.0231	.5064	.0028
#2	.0007	-.0093	.0001	2.091	-.0494	.5059	.0000

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0002	.5152	.0001
SDev	.0001	.0040	.0002
%RSD	47.24	.7740	303.5
#1	-.0002	.5180	-.0001
#2	-.0001	.5124	.0002

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	963724	10000	--	--	--	--	--
SDev	17015.11	.0000000	--	--	--	--	--
%RSD	1.765559	.0000000	--	--	--	--	--
#1	951692	10000	--	--	--	--	--
#2	975755	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226222 Operator:
Run Time: 05/29/03 19:51:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0117	-.0021	-.0012	.0410	.0000	-.0025
SDev	.0017	.0125	.0025	.0003	.0001	.0000	.0065
%RSD	451.0	107.2	120.2	24.54	.3411	31.38	254.0
#1	-.0016	.0028	-.0003	-.0010	.0411	.0000	-.0071
#2	.0008	.0206	-.0038	-.0014	.0409	.0000	.0020

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	42.28	.0000	-.0000	-.0005	.0005	-.0047	.0577
SDev	.00	.0005	.0013	.0003	.0001	.0243	.0321
%RSD	.0001	11100.	6655.	67.19	20.91	511.6	55.63
#1	42.28	-.0003	-.0009	-.0007	.0004	-.0219	.0350
#2	42.28	.0004	.0009	-.0002	.0006	.0124	.0804

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0000	.0029	.0011	-.0015	-.0385	.0169
SDev	.0021	.0001	.0135	.0000	.0004	.2821	.0065
%RSD	9459.	140.1	472.0	1.033	27.20	733.2	38.09
#1	-.0015	.0000	-.0067	.0011	-.0012	-.2380	.0124
#2	.0015	.0001	.0124	.0011	-.0018	.1610	.0215

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0038	.0013	-.0019	-.0012	.0064	.0004
SDev	.0010	.0112	.0044	.0040	.0066	.0007	.0002
%RSD	765.5	292.5	325.7	209.6	535.3	11.02	56.26
#1	-.0006	.0041	-.0018	.0009	-.0059	.0059	.0005
#2	.0009	-.0118	.0044	-.0047	.0035	.0069	.0002

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.57	.0039	-.0000	3.339	-.0008	.0013	-.0002
SDev	.57	.0051	.0024	.000	.0012	.0001	.0008
%RSD	.5748	132.0	11920.	.0031	148.3	7.844	518.3
#1	98.97	.0003	.0017	3.339	.0000	.0012	-.0007
#2	98.17	.0075	-.0017	3.339	-.0017	.0014	.0004

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0277	-.0010	-.0003	-.0020	.1241	-.0006	-.0018
SDev	.0001	.0026	.0000	.0035	.0595	.0005	.0024
%RSD	.2098	260.6	5.660	168.9	47.96	82.54	135.0
#1	.0277	.0008	-.0003	-.0045	.0820	-.0010	-.0035
#2	.0278	-.0029	-.0003	.0004	.1662	-.0003	-.0001

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0010	-.0010
SDev	.0001	.0004	.0008
%RSD	79.19	41.57	83.32
#1	-.0002	.0007	-.0016
#2	-.0001	.0013	-.0004

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	992335	10000	--	--	--	--	--
SDev	5678.067	.0000000	--	--	--	--	--
%RSD	.5721926	.0000000	--	--	--	--	--
#1	996350	10000	--	--	--	--	--
#2	988320	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226223 Operator:
Run Time: 05/29/03 19:56:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0206	.0017	-.0005	.0415	.0001	-.0011
SDev	.0001	.0050	.0020	.0000	.0001	.0000	.0036
%RSD	310.8	24.44	118.9	1.307	.2718	12.23	322.4
#1	.0001	.0241	.0031	-.0005	.0416	.0001	.0014
#2	-.0000	.0170	.0003	-.0005	.0414	.0001	-.0036

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	42.71	.0000	.0022	.0004	.0717	.0172	.0270
SDev	.01	.0001	.0008	.0001	.0000	.0017	.0070
%RSD	.0139	129300.	36.09	12.93	.0515	9.848	26.12
#1	42.70	.0001	.0028	.0005	.0717	.0160	.0220
#2	42.71	-.0001	.0016	.0004	.0717	.0184	.0320

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0001	.0040	.0020	-.0013	.2976	.0227
SDev	.0006	.0000	.0019	.0001	.0005	.1315	.0013
%RSD	222.8	35.84	46.04	3.373	42.54	44.19	5.631
#1	.0007	.0001	.0053	.0020	-.0017	.2046	.0218
#2	-.0002	.0001	.0027	.0019	-.0009	.3905	.0236

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	-.0002	.0016	-.0017	.0018	.0062	.0018
SDev	.0005	.0042	.0010	.0003	.0010	.0049	.0029
%RSD	2405.	2316.	61.44	20.07	53.97	79.49	162.1
#1	.0004	.0028	.0009	-.0019	.0011	.0097	.0039
#2	-.0003	-.0032	.0023	-.0015	.0024	.0027	-.0003

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.59	.0020	-.0020	3.380	-.0006	-.0007	.0057
SDev	.55	.0043	.0012	.006	.0006	.0023	.0018
%RSD	.5597	218.2	59.62	.1761	95.12	327.6	31.90
#1	97.98	.0051	-.0012	3.384	-.0010	.0009	.0044
#2	97.20	-.0011	-.0029	3.376	-.0002	-.0023	.0069

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0282	-.0002	-.0000	-.0019	.2030	.0001	-.0023
SDev	.0001	.0023	.0001	.0039	.0134	.0001	.0010
%RSD	.2128	1083.	303.0	203.5	6.580	155.2	42.56
#1	.0282	-.0018	.0000	.0008	.2124	.0002	-.0016
#2	.0281	.0014	-.0001	-.0046	.1936	-.0000	-.0031

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0032	-.0004
SDev	.0000	.0002	.0003
%RSD	173.4	6.715	71.51
#1	.0000	.0033	-.0002
#2	-.0000	.0030	-.0005

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	982580	10000	--	--	--	--	--
SDev	5490.684	.0000000	--	--	--	--	--
%RSD	.5588025	.0000000	--	--	--	--	--
#1	986463	10000	--	--	--	--	--
#2	978698	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226224 Operator:
Run Time: 05/29/03 20:00:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0316	-.0011	-.0014	.0424	.0000	.0036
SDev	.0021	.0120	.0005	.0001	.0002	.0000	.0027
%RSD	510.0	37.88	50.46	5.564	.4486	48.10	74.81
#1	.0019	.0400	-.0007	-.0015	.0422	.0000	.0054
#2	-.0011	.0231	-.0015	-.0014	.0425	.0000	.0017

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	44.16	.0002	.0004	.0002	.0010	.0335	.0614
SDev	.22	.0004	.0010	.0003	.0001	.0861	.0728
%RSD	.5054	174.5	236.0	167.4	6.007	257.2	118.6
#1	44.32	.0005	.0012	.0004	.0010	.0943	.1128
#2	44.00	-.0001	-.0003	-.0000	.0010	-.0274	.0099

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0002	.0121	.0015	-.0011	.4525	.0214
SDev	.0023	.0002	.0140	.0000	.0000	.8729	.0131
%RSD	239.0	136.9	115.3	1.615	1.447	192.9	61.09
#1	.0026	.0003	.0220	.0015	-.0011	1.070	.0306
#2	-.0007	.0000	.0022	.0015	-.0012	-.1647	.0121

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	-.0053	.0028	.0001	.0081	.0032	.0044
SDev	.0000	.0056	.0009	.0025	.0151	.0003	.0018
%RSD	3.695	105.1	30.86	1903.	185.2	9.003	40.27
#1	.0008	-.0014	.0034	-.0017	.0188	.0030	.0057
#2	.0007	-.0093	.0022	.0019	-.0025	.0034	.0032

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.54	.0030	-.0024	3.475	.0010	-.0006	.0007
SDev	1.44	.0027	.0039	.007	.0014	.0017	.0038
%RSD	1.510	89.73	160.4	.1997	137.5	275.8	525.7
#1	94.52	.0049	-.0052	3.480	.0000	-.0018	.0034
#2	96.56	.0011	.0003	3.470	.0020	.0006	-.0020

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0290	-.0021	-.0001	-.0005	.2198	-.0003	-.0003
SDev	.0000	.0016	.0000	.0034	.0635	.0002	.0010
%RSD	.0909	75.18	53.89	753.7	28.89	66.95	331.1
#1	.0290	-.0032	-.0000	.0020	.2648	-.0005	.0004
#2	.0289	-.0010	-.0001	-.0029	.1749	-.0002	-.0010

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0017	.0003
SDev	.0000	.0007	.0011
%RSD	74.71	42.26	377.1
#1	-.0000	.0022	.0011
#2	-.0000	.0012	-.0005

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	961851	10000	--	--	--	--	--
SDev	14495.69	.0000000	--	--	--	--	--
%RSD	1.507062	.0000000	--	--	--	--	--
#1	951601	10000	--	--	--	--	--
#2	972101	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226225 Operator:
Run Time: 05/29/03 20:05:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0176	.0040	-.0018	.0431	.0000	-.0015
SDev	.0007	.0085	.0004	.0001	.0002	.0000	.0006
%RSD	194.9	48.34	10.18	5.550	.4186	6.587	36.31
#1	.0009	.0236	.0043	-.0019	.0429	.0000	-.0011
#2	-.0001	.0116	.0037	-.0017	.0432	.0000	-.0019

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	45.00	.0002	.0020	.0004	.0011	.0081	.0275
SDev	.22	.0003	.0001	.0002	.0002	.0263	.0180
%RSD	.4971	115.9	7.576	51.97	20.36	324.8	65.43
#1	45.16	.0004	.0019	.0005	.0010	.0267	.0402
#2	44.85	.0000	.0021	.0002	.0013	-.0105	.0148

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0000	.0040	.0014	-.0017	.1629	.0215
SDev	.0004	.0001	.0077	.0000	.0004	.1485	.0039
%RSD	48.22	135.4	191.9	.6232	26.56	91.18	18.02
#1	.0012	.0001	.0095	.0014	-.0020	.2679	.0187
#2	.0006	.0000	-.0014	.0014	-.0014	.0579	.0242

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0034	.0080	-.0015	.0017	.0086	.0014
SDev	.0001	.0009	.0007	.0013	.0015	.0016	.0015
%RSD	21.37	27.63	8.301	86.86	86.65	18.55	108.7
#1	.0008	.0027	.0075	-.0006	.0027	.0075	.0025
#2	.0006	.0041	.0084	-.0025	.0007	.0098	.0003

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.97	.0054	-.0026	3.564	.0016	.0001	.0004
SDev	1.95	.0020	.0023	.003	.0007	.0009	.0003
%RSD	2.013	36.81	89.71	.0803	41.11	1375.	83.79
#1	95.59	.0068	-.0043	3.562	.0021	-.0006	.0006
#2	98.35	.0040	-.0010	3.566	.0012	.0007	.0002

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0294	.0004	-.0000	.0014	.3471	.0002	.0006
SDev	.0001	.0021	.0002	.0010	.0170	.0000	.0015
%RSD	.3346	551.4	551.2	72.12	4.905	3.022	242.4
#1	.0293	-.0011	-.0001	.0007	.3591	.0002	.0017
#2	.0294	.0019	.0001	.0021	.3350	.0002	-.0005

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0011	-.0002
SDev	.0000	.0003	.0000
%RSD	30.53	25.30	13.88
#1	.0000	.0013	-.0002
#2	.0001	.0009	-.0002

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	976310	10000	--	--	--	--	--
SDev	19675.95	.0000000	--	--	--	--	--
%RSD	2.015339	.0000000	--	--	--	--	--
#1	962397	10000	--	--	--	--	--
#2	990223	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226226 Operator:
Run Time: 05/29/03 20:10:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0161	.0000	-.0030	.0004	.0000	.0046
SDev	.0011	.0057	.0010	.0019	.0002	.0000	.0027
%RSD	230.0	35.51	18220.	63.90	58.10	55.35	58.13
#1	-.0003	.0121	-.0007	-.0017	.0005	.0000	.0027
#2	.0013	.0201	.0007	-.0044	.0002	.0000	.0065

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.42	.0003	.0022	-.0010	.0001	.0067	.0788
SDev	.07	.0004	.0002	.0027	.0018	.0209	.0141
%RSD	.1944	109.7	8.008	266.9	1209.	313.1	17.94
#1	37.48	.0001	.0021	.0009	.0014	-.0081	.0688
#2	37.37	.0006	.0024	-.0029	-.0011	.0215	.0888

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0000	.0088	.0000	-.0020	.2362	.0679
SDev	.0012	.0001	.0042	.0003	.0007	.1676	.0060
%RSD	124.9	153.9	47.35	73330.	36.20	70.95	8.863
#1	.0001	-.0000	.0059	.0002	-.0015	.1177	.0637
#2	.0018	.0001	.0118	-.0002	-.0025	.3548	.0722

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	-.0046	.0104	-.0042	.0016	.0085	-.0018
SDev	.0011	.0040	.0118	.0059	.0037	.0092	.0051
%RSD	167.9	85.50	113.7	141.4	231.0	108.3	277.9
#1	.0001	-.0018	.0020	-.0000	-.0010	.0020	.0018
#2	-.0014	-.0074	.0187	-.0084	.0042	.0150	-.0054

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	101.0	.0054	-.0056	2.946	.0007	-.0019	.0022
SDev	.6	.0038	.0025	.000	.0000	.0004	.0002
%RSD	.5999	70.46	44.84	.0122	2.023	21.49	9.944
#1	100.6	.0027	-.0038	2.947	.0007	-.0016	.0021
#2	101.5	.0080	-.0074	2.946	.0007	-.0022	.0024

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0220	-.0049	-.0004	.0019	.2369	-.0011	.0022
SDev	.0000	.0098	.0007	.0021	.0279	.0023	.0020
%RSD	.1935	200.3	154.3	108.3	11.79	203.9	88.80
#1	.0219	.0020	.0000	.0005	.2172	.0005	.0008
#2	.0220	-.0118	-.0009	.0034	.2567	-.0027	.0036

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0004	.0007	-.0004
SDev	.0003	.0003	.0017
%RSD	71.49	50.07	440.7
#1	-.0002	.0004	.0008
#2	-.0007	.0009	-.0016

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1017266	10000	--	--	--	--	--
SDev	6025.257	.0000000	--	--	--	--	--
%RSD	.5922987	.0000000	--	--	--	--	--
#1	1013006	10000	--	--	--	--	--
#2	1021527	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226226D Operator:
Run Time: 05/29/03 20:14:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0156	-.0001	-.0025	.0005	.0000	.0020
SDev	.0007	.0015	.0006	.0000	.0000	.0000	.0047
%RSD	179.3	9.881	515.8	.4110	3.496	62.14	234.4
#1	.0009	.0167	.0003	-.0025	.0005	.0000	.0053
#2	-.0001	.0145	-.0005	-.0025	.0005	.0000	-.0013

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.35	.0000	.0041	.0005	.0009	.0116	.0792
SDev	.12	.0001	.0007	.0008	.0001	.0138	.0114
%RSD	.3334	203.9	16.34	137.8	14.18	119.3	14.34
#1	37.44	.0001	.0045	.0000	.0008	.0213	.0872
#2	37.26	-.0000	.0036	.0011	.0010	.0018	.0711

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0000	.0071	.0030	-.0018	.2931	.0653
SDev	.0010	.0001	.0050	.0001	.0002	.1803	.0008
%RSD	109.7	121.6	70.01	3.713	9.716	61.51	1.204
#1	.0016	.0001	.0107	.0029	-.0019	.4206	.0647
#2	.0002	.0000	.0036	.0031	-.0017	.1656	.0658

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0089	.0028	-.0002	.0023	.0074	-.0002
SDev	.0006	.0094	.0032	.0032	.0034	.0030	.0014
%RSD	936.2	105.8	117.0	1610.	146.0	41.03	866.9
#1	-.0004	-.0022	.0051	-.0025	.0047	.0052	-.0011
#2	.0005	-.0156	.0005	.0021	-.0001	.0095	.0008

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.8	.0005	-.0013	2.923	.0008	-.0007	.0003
SDev	.7	.0019	.0039	.012	.0011	.0020	.0015
%RSD	.7101	416.3	311.7	.3949	135.5	291.7	604.9
#1	100.3	.0018	-.0040	2.931	.0000	-.0021	.0013
#2	101.3	-.0009	.0015	2.915	.0016	.0007	-.0008

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0218	-.0006	-.0001	.0009	.2248	-.0001	.0017
SDev	.0000	.0046	.0002	.0033	.0127	.0008	.0015
%RSD	.0177	772.1	167.7	344.4	5.630	574.7	90.21
#1	.0218	-.0039	-.0002	-.0014	.2338	-.0007	.0006
#2	.0218	.0027	.0000	.0033	.2159	.0004	.0027

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0003	.0010	.0001
SDev	.0001	.0002	.0005
%RSD	23.64	22.92	397.7
#1	-.0004	.0012	-.0002
#2	-.0003	.0009	.0005

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1014834	10000	--	--	--	--	--
SDev	7222.389	.0000000	--	--	--	--	--
%RSD	.7116818	.0000000	--	--	--	--	--
#1	1009727	10000	--	--	--	--	--
#2	1019941	10000	--	--	--	--	--

Analysis Report 05/29/03 08:24:08 PM

Method: DAILY2 Sample Name: 226227 Operator:
Run Time: 05/29/03 20:19:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0130	.0015	-.0031	.0004	-.0000	.0001
SDev	.0019	.0090	.0026	.0008	.0001	.0000	.0056
%RSD	2314.	69.67	175.8	26.45	27.82	2168.	7354.
#1	-.0014	.0066	.0033	-.0025	.0005	-.0000	-.0039
#2	.0013	.0194	-.0004	-.0037	.0003	.0000	.0041

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	35.83	.0000	.0019	-.0007	.0007	-.0060	.1335
SDev	.02	.0003	.0011	.0002	.0003	.0217	.0016
%RSD	.0437	2085.	57.54	33.54	45.83	363.2	1.199
#1	35.84	-.0002	.0011	-.0005	.0009	-.0213	.1323
#2	35.82	.0002	.0026	-.0008	.0005	.0094	.1346

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	-.0000	.0026	.0001	-.0018	.1508	.0633
SDev	.0021	.0000	.0144	.0001	.0004	.0329	.0046
%RSD	4403.	319.7	555.8	179.1	20.48	21.84	7.254
#1	-.0015	-.0000	-.0076	.0001	-.0016	.1275	.0601
#2	.0014	.0000	.0128	-.0000	-.0021	.1741	.0666

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	-.0044	.0066	-.0022	.0012	.0017	-.0002
SDev	.0005	.0021	.0023	.0015	.0030	.0037	.0010
%RSD	85.89	46.86	34.31	69.74	245.9	219.9	452.2
#1	-.0002	-.0059	.0050	-.0011	-.0009	.0043	.0005
#2	-.0009	-.0029	.0083	-.0033	.0034	-.0009	-.0010

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.32	.0041	-.0032	2.774	.0008	-.0008	.0002
SDev	.40	.0002	.0009	.006	.0003	.0005	.0003
%RSD	.4173	5.766	28.78	.2151	35.03	67.62	176.7
#1	96.61	.0039	-.0026	2.770	.0009	-.0004	-.0000
#2	96.04	.0042	-.0039	2.778	.0006	-.0012	.0004

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0209	-.0004	-.0001	-.0011	.0270	-.0007	.0011
SDev	.0001	.0063	.0002	.0036	.0519	.0007	.0032
%RSD	.5198	1606.	158.3	337.6	191.9	106.3	280.2
#1	.0208	.0040	.0000	-.0036	-.0096	-.0002	-.0011
#2	.0209	-.0048	-.0003	.0015	.0637	-.0012	.0034

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0003	.0045	.0005
SDev	.0001	.0005	.0001
%RSD	39.37	11.49	14.36
#1	-.0002	.0041	.0005
#2	-.0004	.0048	.0004

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	969728	10000	--	--	--	--	--
SDev	4135.868	.0000000	--	--	--	--	--
%RSD	.4264975	.0000000	--	--	--	--	--
#1	972653	10000	--	--	--	--	--
#2	966804	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226227S Operator:
Run Time: 05/29/03 20:24:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0514	1.972	2.038	-.0033	2.053	.0488	.0004
SDev	.0017	.003	.002	.0000	.000	.0001	.0011
%RSD	3.347	.1453	.0852	.9299	.0016	.2703	246.6
#1	.0502	1.970	2.039	-.0033	2.053	.0487	-.0003
#2	.0526	1.974	2.037	-.0033	2.053	.0489	.0012

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	55.34	.0516	.5062	.1928	.2544	1.118	18.18
SDev	.14	.0004	.0015	.0008	.0000	.018	.04
%RSD	.2609	.8591	.2884	.4396	.0094	1.603	.2278
#1	55.24	.0513	.5052	.1922	.2544	1.105	18.21
#2	55.44	.0519	.5072	.1934	.2544	1.130	18.15

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0002	20.47	.5098	-.0015	18.67	27.84
SDev	.0019	.0001	.01	.0007	.0003	.12	.14
%RSD	271.5	70.37	.0620	.1330	20.20	.6539	.5188
#1	-.0007	.0001	20.46	.5093	-.0018	18.58	27.94
#2	.0021	.0002	20.48	.5103	-.0013	18.75	27.74

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4808	.0010	.5187	.5145	.0056	-.0085	.4965
SDev	.0010	.0094	.0060	.0036	.0019	.0020	.0013
%RSD	.2013	970.0	1.156	.6905	34.43	23.43	.2562
#1	.4802	-.0057	.5144	.5120	.0043	-.0100	.4974
#2	.4815	.0076	.5229	.5171	.0070	-.0071	.4956

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.44	2.080	2.097	6.906	.5159	2.091	-.0010
SDev	1.09	.015	.015	.005	.0044	.015	.0010
%RSD	1.144	.7312	.7203	.0748	.8463	.7239	100.6
#1	96.21	2.069	2.086	6.910	.5128	2.081	-.0003
#2	94.66	2.091	2.108	6.902	.5190	2.102	-.0016

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0211	-.0141	.0000	2.105	.0335	.5089	.0007
SDev	.0001	.0022	.0001	.004	.0536	.0007	.0021
%RSD	.4727	15.68	189.7	.2116	159.9	.1308	283.0
#1	.0211	-.0125	-.0000	2.101	-.0044	.5085	-.0007
#2	.0212	-.0156	.0001	2.108	.0714	.5094	.0022

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0003	.5163	.0009
SDev	.0001	.0029	.0004
%RSD	32.81	.5519	42.07
#1	-.0003	.5143	.0007
#2	-.0002	.5183	.0012

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	960825	10000	--	--	--	--	--
SDev	11030.87	.0000000	--	--	--	--	--
%RSD	1.148062	.0000000	--	--	--	--	--
#1	968625	10000	--	--	--	--	--
#2	953025	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCV2 Operator:
Run Time: 05/29/03 20:32:41
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9967	9.888	4.997	4.824	9.902	.9680	5.066
SDev	.0008	.005	.008	.023	.014	.0025	.026
%RSD	.0850	.0547	.1610	.4775	.1455	.2549	.5151
#1	.9961	9.884	4.991	4.807	9.913	.9662	5.048
#2	.9973	9.892	5.003	4.840	9.892	.9697	5.085
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.100	11.00	5.500	5.500	11.00	1.100	5.500
Low	.9000	9.000	4.500	4.500	9.000	.9000	4.500

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.83	1.034	5.058	1.911	1.981	10.29	18.49
SDev	.05	.002	.009	.004	.004	.05	.02
%RSD	.2614	.2366	.1842	.1832	.2010	.4410	.0834
#1	19.79	1.032	5.051	1.909	1.984	10.25	18.50
#2	19.87	1.035	5.065	1.914	1.978	10.32	18.48
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	22.00	1.100	5.500	2.200	2.200	11.00	22.00
Low	18.00	.9000	4.500	1.800	1.800	9.000	18.00

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.944	4.841	19.95	1.021	5.127	27.90	H41.08
SDev	.002	.008	.05	.002	.031	.31	.08
%RSD	.0389	.1599	.2681	.2051	.6028	1.123	.2044
#1	4.943	4.846	19.92	1.020	5.105	27.68	H41.14
#2	4.946	4.835	19.99	1.023	5.148	28.12	H41.02
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	5.500	22.00	1.100	5.500	33.00	33.00
Low	4.500	4.500	18.00	.9000	4.500	27.00	27.00

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.787	4.977	5.108	5.107	.9992	1.017	.9924
SDev	.013	.066	.014	.002	.0053	.003	.0010
%RSD	.2720	1.321	.2771	.0438	.5338	.3153	.1037
#1	4.796	5.023	5.098	5.109	.9954	1.019	.9917
#2	4.777	4.930	5.118	5.106	1.003	1.015	.9932
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	5.500	5.500			1.100	1.100	1.100
Low	4.500	4.500			.9000	.9000	.9000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.46	5.210	5.227	5.068	5.107	5.221	4.951
SDev	.63	.007	.000	.001	.003	.002	.016
%RSD	.6556	.1402	.0083	.0183	.0633	.0411	.3221
#1	96.01	5.205	5.227	5.067	5.105	5.220	4.939
#2	96.90	5.215	5.227	5.069	5.110	5.223	4.962
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				5.500	5.500	5.500	5.500
Low				4.500	4.500	4.500	4.500

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.081	.9790	4.840	5.250	.9999	5.000	H1.320
SDev	.006	.0013	.005	.024	.0199	.001	.001
%RSD	.1256	.1276	.0951	.4562	1.991	.0116	.0979
#1	5.085	.9798	4.837	5.233	.9858	4.999	H1.319
#2	5.076	.9781	4.843	5.267	1.014	5.000	H1.320
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	1.100	5.500	5.500	1.100	5.500	1.100
Low	4.500	.9000	4.500	4.500	.9000	4.500	.9000

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.883	1.029	4.843
SDev	.005	.006	.002
%RSD	.1125	.5844	.0384
#1	4.887	1.025	4.842
#2	4.879	1.033	4.844
Errors	LC Pass	LC Pass	LC Pass
High	5.500	1.100	5.500
Low	4.500	.9000	4.500

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	971060	10000	--	--	--	--	--
SDev	6398.609	.0000000	--	--	--	--	--
%RSD	.6589300	.0000000	--	--	--	--	--
#1	966536	10000	--	--	--	--	--
#2	975585	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCB2 Operator:
Run Time: 05/29/03 20:39:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0019	.0020	.0032	.0001	.0000	.0001
SDev	.0003	.0004	.0020	.0017	.0000	.0000	.0008
%RSD	45.16	20.02	103.0	53.62	15.89	98.71	1127.
#1	.0004	.0016	.0034	.0044	.0001	.0000	.0007
#2	.0008	.0021	.0005	.0020	.0001	.0000	-.0005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0024	.0003	.0004	.0004	.0006	-.0057	.0030
SDev	.0026	.0002	.0003	.0004	.0001	.0361	.0347
%RSD	111.7	71.45	79.97	107.6	13.52	631.1	1159.
#1	-.0005	.0004	.0002	.0007	.0007	.0198	.0275
#2	-.0042	.0001	.0007	.0001	.0006	L-.0312	-.0215
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0001	.0044	.0000	.0017	.0047	.0072
SDev	.0001	.0001	.0006	.0000	.0008	.4128	.0067
%RSD	4.625	121.5	13.70	37.05	46.00	8804.	93.55
#1	.0010	.0002	.0039	.0000	.0023	H.2966	.0024
#2	.0011	.0000	.0048	.0000	.0012	L-.2872	.0119
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	-.0068	.0031	-.0006	.0011	.0015	.0004
SDev	.0006	.0011	.0023	.0001	.0056	.0012	.0006
%RSD	111.6	16.13	76.05	25.87	522.5	80.31	153.3
#1	-.0001	-.0060	.0014	-.0005	H.0050	.0024	-.0000
#2	-.0010	-.0075	.0047	-.0007	-.0029	.0007	.0008
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.8	.0005	-.0013	.0027	.0007	-.0007	.0007
SDev	4.3	.0040	.0066	.0000	.0007	.0031	.0025
%RSD	4.294	868.4	507.5	.6972	103.5	436.6	357.5
#1	97.70	-.0024	.0034	.0027	.0002	.0015	.0024
#2	103.8	.0033	-.0060	.0027	.0011	-.0029	-.0011
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0023	.0002	.0031	.0230	.0007	.0023
SDev	.0000	.0027	.0001	.0042	.0163	.0004	.0017
%RSD	4.065	119.2	82.29	133.3	70.68	51.31	72.51
#1	.0001	.0042	.0003	.0002	.0115	.0010	.0011
#2	.0001	.0004	.0001	.0061	.0345	.0004	.0035
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	-.0001	.0006
SDev	.0001	.0000	.0001
%RSD	285.5	30.07	21.97
#1	.0001	-.0002	.0007
#2	-.0000	-.0001	.0005
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1014458	10000	--	--	--	--	--
SDev	43603.74	.0000000	--	--	--	--	--
%RSD	4.298232	.0000000	--	--	--	--	--
#1	983625	10000	--	--	--	--	--
#2	1045290	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226228 Operator:
Run Time: 05/29/03 20:43:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0103	-.0004	.0015	.0008	.0000	-.0005
SDev	.0042	.0178	.0015	.0014	.0001	.0000	.0161
%RSD	1022.	173.7	424.7	93.73	12.30	23.84	3096.
#1	-.0034	-.0023	.0007	.0025	.0009	.0000	-.0119
#2	.0026	.0228	-.0014	.0005	.0007	.0000	.0109

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	47.41	.0002	.0034	.0008	.0040	.0090	.0670
SDev	.19	.0007	.0030	.0009	.0004	.0945	.1059
%RSD	.4073	376.3	89.94	116.8	9.053	1056.	158.2
#1	47.27	-.0003	.0012	.0014	.0043	-.0579	-.0079
#2	47.55	.0006	.0055	.0001	.0038	.0758	.1419

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0001	.0061	.0002	-.0003	.4277	.1482
SDev	.0044	.0003	.0276	.0001	.0005	1.100	.0206
%RSD	2827.	298.0	451.5	41.03	153.6	257.1	13.88
#1	-.0029	-.0001	-.0134	.0003	.0000	-.3498	.1337
#2	.0033	.0004	.0256	.0002	-.0006	1.205	.1628

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0018	.0009	-.0004	.0021	.0039	.0013
SDev	.0006	.0025	.0072	.0057	.0216	.0037	.0023
%RSD	503.2	141.0	771.2	1366.	1052.	96.37	170.7
#1	.0003	-.0000	-.0041	.0036	-.0132	.0012	.0030
#2	-.0005	-.0036	.0060	-.0045	.0173	.0065	-.0003

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.00	.0006	-.0028	3.907	.0000	-.0016	.0014
SDev	1.34	.0051	.0038	.006	.0014	.0008	.0050
%RSD	1.369	839.8	136.8	.1632	3169.	50.31	362.5
#1	98.94	-.0030	-.0001	3.902	.0010	-.0011	-.0021
#2	97.05	.0042	-.0054	3.911	-.0010	-.0022	.0049

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0274	.0014	.0000	-.0017	.0145	.0005	.0020
SDev	.0001	.0059	.0003	.0060	.1470	.0003	.0085
%RSD	.3218	406.8	813.7	343.8	1016.	57.56	432.3
#1	.0274	.0056	.0003	-.0060	-.0895	.0008	-.0040
#2	.0275	-.0027	-.0002	.0025	.1184	.0003	.0080

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0002	.0010	.0010
SDev	.0001	.0008	.0001
%RSD	41.70	78.79	5.327
#1	-.0002	.0004	.0010
#2	-.0003	.0015	.0010

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	986654	10000	--	--	--	--	--
SDev	13526.25	.0000000	--	--	--	--	--
%RSD	1.370920	.0000000	--	--	--	--	--
#1	996219	10000	--	--	--	--	--
#2	977090	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226229 Operator:
Run Time: 05/29/03 20:48:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0174	.0011	-.0012	.0012	.0000	.0055
SDev	.0013	.0048	.0011	.0008	.0000	.0000	.0039
%RSD	99.40	27.76	104.2	70.95	2.560	47.81	70.09
#1	.0004	.0140	.0018	-.0006	.0012	.0000	.0028
#2	.0022	.0209	.0003	-.0018	.0012	.0001	.0083

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	43.94	.0004	.0041	-.0001	.0009	.0103	.2074
SDev	.19	.0003	.0007	.0002	.0005	.0055	.0075
%RSD	.4384	70.97	16.29	169.4	57.91	53.56	3.621
#1	44.07	.0002	.0036	-.0002	.0012	.0142	.2128
#2	43.80	.0005	.0046	.0000	.0005	.0064	.2021

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0024	.0001	.0157	.0002	-.0012	.1970	.0991
SDev	.0013	.0000	.0127	.0001	.0002	.0167	.0093
%RSD	55.78	61.62	81.02	34.44	18.74	8.466	9.419
#1	.0014	.0001	.0067	.0002	-.0011	.2088	.0925
#2	.0033	.0000	.0247	.0001	-.0014	.1852	.1058

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0029	.0059	-.0045	.0014	.0002	-.0001
SDev	.0003	.0111	.0004	.0002	.0023	.0006	.0007
%RSD	153.6	386.4	7.173	3.486	160.3	278.3	471.2
#1	-.0000	.0107	.0056	-.0046	.0031	.0006	.0003
#2	.0004	-.0050	.0062	-.0044	-.0002	-.0002	-.0006

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.24	.0054	-.0061	4.129	-.0010	-.0023	.0002
SDev	2.12	.0007	.0008	.003	.0002	.0008	.0002
%RSD	2.221	13.34	12.54	.0729	24.69	33.32	99.70
#1	93.74	.0049	-.0066	4.127	-.0012	-.0028	.0001
#2	96.73	.0059	-.0056	4.131	-.0008	-.0017	.0003

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0261	-.0029	-.0002	-.0009	.0662	-.0003	.0020
SDev	.0001	.0018	.0000	.0019	.0498	.0005	.0037
%RSD	.5577	60.57	14.39	200.7	75.28	166.6	189.2
#1	.0260	-.0017	-.0001	-.0023	.0310	-.0006	-.0007
#2	.0262	-.0041	-.0002	.0004	.1014	.0000	.0046

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0003	.0009	.0016
SDev	.0000	.0006	.0000
%RSD	1.196	64.42	2.745
#1	-.0003	.0005	.0016
#2	-.0003	.0014	.0016

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	958832	10000	--	--	--	--	--
SDev	21310.08	.0000000	--	--	--	--	--
%RSD	2.222503	.0000000	--	--	--	--	--
#1	943764	10000	--	--	--	--	--
#2	973901	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226230 Operator:
Run Time: 05/29/03 20:53:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0163	.0014	-.0016	.0007	.0000	-.0003
SDev	.0003	.0062	.0002	.0006	.0001	.0000	.0001
%RSD	167.7	37.84	15.74	40.27	7.263	54.95	18.20
#1	.0004	.0119	.0016	-.0020	.0007	.0000	-.0003
#2	-.0000	.0207	.0013	-.0011	.0008	.0000	-.0003

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	45.54	.0001	.0001	-.0002	.0008	.0199	.0429
SDev	.25	.0002	.0006	.0009	.0005	.0088	.0055
%RSD	.5439	161.3	460.5	369.6	61.30	44.16	12.90
#1	45.72	.0003	.0006	-.0009	.0005	.0261	.0468
#2	45.37	-.0000	-.0003	.0004	.0012	.0137	.0389

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0001	.0105	.0003	-.0016	.3416	.1703
SDev	.0005	.0000	.0000	.0001	.0009	.1073	.0039
%RSD	67.52	57.74	.3811	17.62	57.63	31.41	2.316
#1	.0012	.0001	.0106	.0002	-.0023	.4175	.1675
#2	.0004	.0000	.0105	.0003	-.0010	.2658	.1731

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0009	.0053	-.0010	.0027	.0020	.0009
SDev	.0002	.0032	.0026	.0004	.0042	.0034	.0052
%RSD	48.08	336.7	49.15	35.91	154.7	168.5	559.5
#1	-.0006	-.0013	.0072	-.0008	.0056	.0045	-.0027
#2	-.0003	.0032	.0035	-.0013	-.0003	-.0004	.0046

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.85	.0021	-.0033	3.535	.0011	-.0015	.0017
SDev	1.19	.0003	.0019	.005	.0011	.0013	.0000
%RSD	1.240	15.07	56.83	.1353	101.1	90.87	2.559
#1	95.01	.0023	-.0019	3.538	.0019	-.0005	.0017
#2	96.69	.0019	-.0046	3.531	.0003	-.0024	.0018

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0264	-.0008	-.0001	-.0021	.0163	-.0001	-.0002
SDev	.0000	.0039	.0002	.0033	.0035	.0007	.0015
%RSD	.0140	512.8	231.8	158.8	21.44	586.1	612.7
#1	.0264	-.0035	-.0002	.0003	.0138	-.0006	.0008
#2	.0263	.0020	.0001	-.0044	.0187	.0004	-.0013

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0002	.0002	.0020
SDev	.0001	.0001	.0007
%RSD	35.03	57.95	33.33
#1	-.0003	.0001	.0015
#2	-.0002	.0003	.0024

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	964964	10000	--	--	--	--	--
SDev	11977.68	.0000000	--	--	--	--	--
%RSD	1.241256	.0000000	--	--	--	--	--
#1	956495	10000	--	--	--	--	--
#2	973434	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226231 Operator:
Run Time: 05/29/03 20:57:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0096	-.0004	-.0026	.0012	.0000	.0014
SDev	.0003	.0016	.0001	.0004	.0001	.0000	.0012
%RSD	83.28	16.75	21.22	15.33	6.958	109.7	86.41
#1	-.0001	.0107	-.0004	-.0029	.0011	.0000	.0022
#2	-.0005	.0085	-.0003	-.0023	.0012	.0000	.0005

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.70	.0001	-.0005	.0005	.0024	.0021	.0781
SDev	.00	.0000	.0003	.0001	.0008	.0037	.0057
%RSD	.0007	21.95	65.75	19.97	34.66	177.6	7.365
#1	39.70	.0001	-.0003	.0004	.0018	.0046	.0821
#2	39.70	.0001	-.0007	.0006	.0030	-.0005	.0740

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0000	.0089	.0002	-.0018	.2132	.0513
SDev	.0002	.0000	.0019	.0001	.0002	.0565	.0010
%RSD	23.49	20.77	21.11	44.33	11.13	26.48	1.913
#1	.0010	.0000	.0075	.0001	-.0016	.2531	.0520
#2	.0007	.0000	.0102	.0003	-.0019	.1733	.0506

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	-.0020	.0021	-.0016	.0020	-.0030	-.0008
SDev	.0001	.0051	.0067	.0042	.0004	.0010	.0025
%RSD	114.9	252.4	317.9	256.6	19.53	33.57	320.0
#1	.0001	.0016	.0068	-.0046	.0017	-.0023	-.0025
#2	.0000	-.0056	-.0026	.0013	.0023	-.0037	.0010

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.74	.0013	.0005	3.713	-.0004	.0008	.0016
SDev	.36	.0053	.0000	.007	.0006	.0018	.0003
%RSD	.3824	413.0	1.637	.1795	149.5	235.0	18.84
#1	94.99	.0051	.0005	3.718	-.0008	.0020	.0014
#2	94.48	-.0025	.0005	3.709	.0000	-.0005	.0018

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0238	.0013	.0000	-.0010	.0505	-.0001	-.0008
SDev	.0000	.0020	.0001	.0052	.0123	.0009	.0008
%RSD	.0905	155.7	377.1	513.2	24.28	700.6	101.6
#1	.0238	-.0001	-.0001	.0027	.0592	-.0007	-.0002
#2	.0237	.0027	.0001	-.0047	.0418	.0005	-.0014

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0002	.0004	.0014
SDev	.0001	.0001	.0004
%RSD	34.28	16.94	31.05
#1	-.0002	.0003	.0011
#2	-.0001	.0004	.0017

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	953778	10000	--	--	--	--	--
SDev	3623.922	.0000000	--	--	--	--	--
%RSD	.3799543	.0000000	--	--	--	--	--
#1	956341	10000	--	--	--	--	--
#2	951216	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226232 Operator:
Run Time: 05/29/03 21:02:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0083	.0002	-.0023	.0006	.0000	-.0018
SDev	.0012	.0070	.0012	.0001	.0001	.0000	.0066
%RSD	825.7	84.91	569.1	3.313	23.69	71.32	374.3
#1	.0010	.0133	-.0007	-.0023	.0005	.0000	.0029
#2	-.0007	.0033	.0011	-.0022	.0007	.0000	-.0064

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	41.23	.0001	-.0001	-.0005	.0058	-.0087	.0083
SDev	.36	.0002	.0009	.0017	.0003	.0439	.0452
%RSD	.8800	192.9	819.0	347.7	4.313	502.7	542.4
#1	41.49	.0002	.0005	-.0017	.0056	.0223	.0403
#2	40.98	-.0000	-.0007	.0007	.0059	-.0397	-.0236

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	-.0000	.0061	.0002	-.0013	.1215	.0195
SDev	.0018	.0001	.0114	.0001	.0000	.5106	.0009
%RSD	277.3	629.6	185.5	73.38	.2920	420.3	4.840
#1	.0020	.0001	.0142	.0001	-.0013	.4826	.0202
#2	-.0006	-.0001	-.0019	.0003	-.0013	-.2396	.0189

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0006	-.0004	.0008	-.0018	.0024	-.0009
SDev	.0016	.0001	.0116	.0043	.0088	.0072	.0065
%RSD	688.3	11.10	3126.	513.3	488.4	295.6	704.6
#1	-.0014	-.0007	.0078	-.0022	.0044	.0075	-.0055
#2	.0009	-.0006	-.0086	.0039	-.0080	-.0026	.0037

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.17	-.0023	.0003	3.123	.0004	-.0005	.0010
SDev	3.72	.0016	.0021	.005	.0010	.0008	.0008
%RSD	3.751	71.49	597.0	.1577	225.8	162.5	84.31
#1	96.54	-.0011	-.0011	3.127	.0012	-.0011	.0016
#2	101.8	-.0034	.0018	3.120	-.0003	.0001	.0004

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0239	-.0002	-.0001	-.0016	.1070	-.0003	.0004
SDev	.0001	.0048	.0003	.0012	.0439	.0007	.0023
%RSD	.2306	3098.	293.4	76.50	41.00	210.1	601.8
#1	.0239	-.0036	-.0003	-.0007	.1380	-.0009	.0020
#2	.0239	.0033	.0001	-.0025	.0760	.0002	-.0012

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0003	.0000	-.0001
SDev	.0002	.0003	.0004
%RSD	62.23	949.8	263.1
#1	-.0004	.0003	-.0004
#2	-.0002	-.0002	.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	998419	10000	--	--	--	--	--
SDev	37403.12	.0000000	--	--	--	--	--
%RSD	3.746235	.0000000	--	--	--	--	--
#1	971971	10000	--	--	--	--	--
#2	1024867	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226233 Operator:
Run Time: 05/29/03 21:07:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0102	.0022	-.0023	.0009	.0000	.0027
SDev	.0006	.0009	.0002	.0016	.0001	.0000	.0001
%RSD	248.5	8.829	8.271	70.84	13.35	36.20	3.491
#1	-.0006	.0096	.0023	-.0011	.0010	.0001	.0026
#2	.0002	.0109	.0021	-.0034	.0008	.0000	.0027

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	40.30	.0001	.0003	.0012	.0013	.0103	.0695
SDev	.04	.0000	.0001	.0011	.0006	.0156	.0175
%RSD	.1022	7.587	47.04	86.16	43.16	151.0	25.12
#1	40.33	.0001	.0002	.0020	.0017	-.0007	.0572
#2	40.27	.0001	.0004	.0005	.0009	.0214	.0819

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0000	.0052	.0010	-.0014	.3772	.2294
SDev	.0006	.0001	.0003	.0002	.0002	.1071	.0111
%RSD	52.61	217.1	5.694	17.21	11.81	28.39	4.818
#1	.0007	-.0000	.0050	.0011	-.0013	.3015	.2216
#2	.0015	.0001	.0054	.0009	-.0015	.4530	.2372

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0015	.0017	-.0010	.0026	.0019	.0041
SDev	.0007	.0009	.0072	.0061	.0045	.0014	.0015
%RSD	565.1	60.74	425.2	596.2	173.0	75.20	36.88
#1	.0006	-.0008	-.0034	.0033	-.0006	.0030	.0052
#2	-.0004	-.0021	.0068	-.0053	.0058	.0009	.0030

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.73	.0011	-.0012	3.393	-.0001	-.0004	.0010
SDev	1.18	.0002	.0039	.002	.0017	.0026	.0001
%RSD	1.236	15.48	329.8	.0690	1641.	602.6	5.715
#1	94.90	.0010	.0016	3.394	.0011	.0014	.0011
#2	96.57	.0012	-.0040	3.391	-.0013	-.0022	.0010

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0237	.0006	.0001	-.0002	.0829	.0008	.0018
SDev	.0000	.0017	.0002	.0011	.0262	.0007	.0029
%RSD	.0621	264.0	238.5	448.4	31.66	88.73	162.6
#1	.0237	.0018	.0002	-.0010	.0644	.0013	.0039
#2	.0237	-.0006	-.0001	.0005	.1015	.0003	-.0003

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0003	.0025
SDev	.0002	.0001	.0011
%RSD	183.5	40.88	44.15
#1	.0000	.0002	.0033
#2	-.0002	.0003	.0017

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	963810	10000	--	--	--	--	--
SDev	11952.23	.0000000	--	--	--	--	--
%RSD	1.240101	.0000000	--	--	--	--	--
#1	955359	10000	--	--	--	--	--
#2	972262	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226234 Operator:
Run Time: 05/29/03 21:12:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0094	.0004	-.0026	.0191	.0000	.0038
SDev	.0003	.0023	.0017	.0014	.0002	.0000	.0005
%RSD	41.16	24.80	375.6	56.05	1.113	91.80	13.93
#1	.0004	.0077	-.0007	-.0015	.0193	.0000	.0042
#2	.0008	.0110	.0016	-.0036	.0190	.0000	.0035

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.84	.0001	.0026	.0004	.0014	.0082	.0261
SDev	.02	.0001	.0001	.0022	.0006	.0028	.0003
%RSD	.0449	142.7	1.762	566.2	42.35	34.65	1.074
#1	39.83	-.0000	.0026	.0019	.0018	.0062	.0259
#2	39.86	.0002	.0026	-.0011	.0010	.0102	.0263

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0000	.0116	.0008	-.0009	.2648	.0155
SDev	.0007	.0000	.0004	.0002	.0014	.1075	.0006
%RSD	63.42	103.4	3.568	28.59	147.3	40.61	4.188
#1	.0006	.0000	.0113	.0009	.0000	.1888	.0160
#2	.0016	.0000	.0119	.0006	-.0019	.3408	.0150

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0055	.0067	-.0014	.0037	.0063	-.0001
SDev	.0006	.0004	.0067	.0004	.0004	.0056	.0043
%RSD	284.5	7.858	100.9	24.57	10.45	89.29	4620.
#1	.0006	-.0058	.0019	-.0012	.0034	.0102	.0029
#2	-.0002	-.0052	.0114	-.0017	.0039	.0023	-.0031

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.98	.0058	-.0018	3.179	.0013	.0007	.0004
SDev	.67	.0009	.0000	.006	.0020	.0003	.0014
%RSD	.7102	15.09	1.969	.1796	157.6	37.64	309.4
#1	95.45	.0052	-.0018	3.174	-.0001	.0005	-.0005
#2	94.50	.0064	-.0019	3.183	.0027	.0009	.0014

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0261	.0004	.0000	-.0012	.0559	-.0001	.0026
SDev	.0000	.0053	.0004	.0012	.0005	.0015	.0018
%RSD	.1465	1461.	12680.	96.56	.9667	2433.	69.36
#1	.0261	.0041	.0003	-.0021	.0563	.0010	.0039
#2	.0261	-.0034	-.0003	-.0004	.0555	-.0011	.0013

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0002	.0001
SDev	.0002	.0001	.0014
%RSD	117.2	38.58	1495.
#1	-.0000	.0002	.0011
#2	-.0003	.0003	-.0009

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	956195	10000	--	--	--	--	--
SDev	6718.929	.0000000	--	--	--	--	--
%RSD	.7026735	.0000000	--	--	--	--	--
#1	960946	10000	--	--	--	--	--
#2	951444	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226235 Operator:
Run Time: 05/29/03 21:16:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0110	.0003	-.0026	.0500	.0000	.0029
SDev	.0001	.0014	.0014	.0001	.0002	.0000	.0017
%RSD	21.78	12.91	418.0	5.721	.4439	36.86	59.64
#1	.0005	.0120	.0014	-.0027	.0501	.0000	.0041
#2	.0007	.0100	-.0007	-.0025	.0498	.0000	.0017

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.97	.0004	.0022	-.0005	.0013	.0213	.0459
SDev	.03	.0002	.0003	.0008	.0000	.0181	.0156
%RSD	.0604	49.95	14.04	169.6	1.921	84.72	34.08
#1	50.95	.0002	.0024	.0001	.0013	.0341	.0569
#2	50.99	.0005	.0020	-.0010	.0013	.0085	.0348

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0000	.0055	.0019	-.0016	.3322	.0174
SDev	.0003	.0000	.0004	.0001	.0001	.1751	.0042
%RSD	31.52	31.75	7.830	2.541	8.091	52.70	23.84
#1	.0013	.0001	.0058	.0020	-.0017	.4560	.0204
#2	.0008	.0000	.0052	.0019	-.0015	.2084	.0145

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0047	.0028	-.0007	.0044	.0067	-.0008
SDev	.0007	.0052	.0001	.0013	.0034	.0012	.0019
%RSD	1099.	109.1	2.805	182.0	77.00	18.36	226.5
#1	.0004	-.0011	.0029	.0002	.0068	.0058	.0005
#2	-.0005	-.0084	.0028	-.0016	.0020	.0075	-.0022

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	92.85	.0004	-.0029	4.095	.0005	-.0018	.0004
SDev	.79	.0018	.0017	.000	.0009	.0017	.0023
%RSD	.8513	500.4	57.66	.0037	187.8	94.26	583.6
#1	93.41	.0016	-.0017	4.095	.0011	-.0006	.0020
#2	92.30	-.0009	-.0041	4.095	-.0002	-.0030	-.0012

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0336	.0004	-.0003	-.0011	.9532	-.0007	.0021
SDev	.0001	.0000	.0000	.0007	.0135	.0003	.0016
%RSD	.1704	1.890	1.689	58.77	1.413	46.81	74.75
#1	.0336	.0004	-.0003	-.0016	.9627	-.0009	.0010
#2	.0335	.0004	-.0003	-.0007	.9437	-.0004	.0033

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0009	-.0007
SDev	.0001	.0001	.0003
%RSD	214.2	5.536	44.53
#1	.0000	.0009	-.0005
#2	-.0001	.0009	-.0009

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	934842	10000	--	--	--	--	--
SDev	7949.294	.0000000	--	--	--	--	--
%RSD	.8503356	.0000000	--	--	--	--	--
#1	940463	10000	--	--	--	--	--
#2	929221	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226236 Operator:
Run Time: 05/29/03 21:21:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0068	-.0008	-.0033	.0344	.0000	.0029
SDev	.0003	.0015	.0025	.0003	.0000	.0000	.0012
%RSD	52.68	21.54	334.6	10.66	.0214	93.13	39.54
#1	.0004	.0079	.0010	-.0035	.0344	.0000	.0021
#2	.0008	.0058	-.0025	-.0030	.0344	.0001	.0037

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.31	.0002	.0006	-.0001	.0007	.0194	.0388
SDev	.01	.0001	.0001	.0001	.0003	.0028	.0092
%RSD	.0328	52.47	14.75	59.28	43.68	14.60	23.73
#1	39.32	.0001	.0007	-.0002	.0005	.0174	.0323
#2	39.30	.0002	.0005	-.0001	.0010	.0215	.0453

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0018	.0000	.0095	.0008	-.0015	.3436	.0105
SDev	.0004	.0000	.0006	.0000	.0001	.0053	.0008
%RSD	19.45	270.5	6.138	.0757	6.379	1.533	7.856
#1	.0016	-.0000	.0090	.0008	-.0015	.3399	.0099
#2	.0021	.0000	.0099	.0008	-.0016	.3474	.0111

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0008	.0058	-.0014	.0033	.0046	.0014
SDev	.0005	.0027	.0037	.0008	.0003	.0011	.0014
%RSD	54.70	330.8	63.71	60.08	8.831	24.82	101.3
#1	.0012	-.0011	.0085	-.0020	.0031	.0038	.0004
#2	.0005	.0028	.0032	-.0008	.0036	.0054	.0024

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.32	.0061	-.0031	3.088	.0010	-.0000	-.0012
SDev	.18	.0042	.0014	.008	.0007	.0005	.0003
%RSD	.1845	68.61	44.11	.2578	65.89	1883.	27.33
#1	96.45	.0090	-.0041	3.094	.0015	.0003	-.0014
#2	96.20	.0031	-.0021	3.083	.0006	-.0004	-.0009

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0269	.0005	.0001	.0006	.1082	.0003	-.0013
SDev	.0000	.0008	.0000	.0006	.0134	.0007	.0016
%RSD	.0529	179.8	29.12	99.83	12.41	258.6	123.8
#1	.0269	.0011	.0000	.0002	.0987	-.0002	-.0025
#2	.0269	-.0001	.0001	.0011	.1177	.0007	-.0002

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0011	.0001
SDev	.0000	.0000	.0001
%RSD	46.57	3.889	60.54
#1	-.0001	.0010	.0000
#2	-.0001	.0011	.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	969701	10000	--	--	--	--	--
SDev	1753.625	.0000000	--	--	--	--	--
%RSD	.1808418	.0000000	--	--	--	--	--
#1	970941	10000	--	--	--	--	--
#2	968461	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226237 Operator:
Run Time: 05/29/03 21:26:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0041	.0005	-.0042	.0404	.0000	.0020
SDev	.0006	.0046	.0003	.0001	.0001	.0000	.0006
%RSD	1217.	112.7	55.10	2.922	.3154	165.9	27.21
#1	-.0004	.0008	.0007	-.0041	.0403	-.0000	.0016
#2	.0004	.0074	.0003	-.0043	.0405	.0000	.0024

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	40.96	.0000	.0040	.0006	.0015	-.0002	.0241
SDev	.12	.0003	.0005	.0005	.0003	.0061	.0022
%RSD	.2841	1034.	11.59	85.52	18.32	3462.	9.014
#1	41.05	-.0002	.0037	.0002	.0013	-.0045	.0226
#2	40.88	.0003	.0043	.0010	.0017	.0042	.0257

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	-.0000	.0075	.0007	-.0022	.1418	.0066
SDev	.0007	.0000	.0040	.0001	.0001	.1076	.0035
%RSD	68.00	9.822	53.43	6.362	6.194	75.84	52.72
#1	.0005	-.0000	.0046	.0007	-.0023	.0658	.0042
#2	.0015	-.0000	.0103	.0008	-.0021	.2179	.0091

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0058	.0026	-.0006	.0007	.0051	.0009
SDev	.0003	.0035	.0019	.0022	.0019	.0007	.0041
%RSD	1182.	61.59	72.29	369.9	257.2	14.33	434.5
#1	-.0002	.0083	.0040	-.0021	-.0006	.0046	-.0019
#2	.0002	.0032	.0013	.0009	.0021	.0056	.0038

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.77	.0014	-.0036	3.220	.0005	-.0019	-.0001
SDev	.52	.0068	.0008	.003	.0008	.0018	.0020
%RSD	.5387	487.6	22.27	.0973	161.6	91.96	1976.
#1	95.41	.0062	-.0041	3.222	-.0001	-.0007	-.0016
#2	96.14	-.0034	-.0030	3.217	.0011	-.0031	.0013

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0268	-.0007	-.0001	-.0001	.1164	.0002	.0000
SDev	.0000	.0009	.0001	.0026	.0165	.0002	.0016
%RSD	.0651	126.0	154.7	1978.	14.15	89.70	5372.
#1	.0268	-.0014	-.0001	-.0019	.1047	.0001	.0012
#2	.0268	-.0001	.0000	.0017	.1280	.0003	-.0011

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0005	.0001
SDev	.0000	.0001	.0003
%RSD	15.80	21.87	518.8
#1	-.0001	.0004	-.0001
#2	-.0001	.0006	.0002

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	964281	10000	--	--	--	--	--
SDev	5180.264	.0000000	--	--	--	--	--
%RSD	.5372152	.0000000	--	--	--	--	--
#1	960618	10000	--	--	--	--	--
#2	967944	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCV3 Operator:
Run Time: 05/29/03 21:34:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9985	9.886	4.985	4.813	9.878	.9666	5.063
SDev	.0012	.002	.013	.015	.005	.0009	.015
%RSD	.1165	.0233	.2688	.3124	.0512	.0958	.2884
#1	.9993	9.888	4.975	4.803	9.874	.9659	5.053
#2	.9977	9.884	4.994	4.824	9.881	.9672	5.074
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.100	11.00	5.500	5.500	11.00	1.100	5.500
Low	.9000	9.000	4.500	4.500	9.000	.9000	4.500

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.83	1.030	5.051	1.911	1.983	10.25	18.50
SDev	.01	.003	.003	.000	.001	.02	.02
%RSD	.0385	.2450	.0595	.0181	.0457	.2094	.1121
#1	19.84	1.028	5.049	1.911	1.984	10.23	18.51
#2	19.83	1.032	5.053	1.910	1.983	10.26	18.48
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	22.00	1.100	5.500	2.200	2.200	11.00	22.00
Low	18.00	.9000	4.500	1.800	1.800	9.000	18.00

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.943	4.852	19.93	1.018	5.123	27.95	H41.24
SDev	.004	.006	.01	.000	.011	.07	.07
%RSD	.0835	.1219	.0750	.0369	.2135	.2583	.1754
#1	4.946	4.856	19.92	1.018	5.115	27.90	H41.29
#2	4.940	4.848	19.94	1.019	5.130	28.00	H41.18
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	5.500	22.00	1.100	5.500	33.00	33.00
Low	4.500	4.500	18.00	.9000	4.500	27.00	27.00

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.766	5.014	5.101	5.061	.9967	1.025	.9899
SDev	.016	.014	.055	.004	.0017	.012	.0003
%RSD	.3405	.2702	1.069	.0885	.1719	1.123	.0341
#1	4.755	5.024	5.063	5.064	.9954	1.017	.9896
#2	4.778	5.005	5.140	5.058	.9979	1.034	.9901
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	5.500	5.500			1.100	1.100	1.100
Low	4.500	4.500			.9000	.9000	.9000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.63	5.167	5.158	5.074	5.075	5.161	4.956
SDev	.64	.055	.002	.003	.015	.020	.003
%RSD	.6678	1.069	.0346	.0677	.2995	.3797	.0653
#1	96.08	5.128	5.157	5.072	5.064	5.147	4.954
#2	95.18	5.206	5.160	5.077	5.085	5.175	4.959
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				5.500	5.500	5.500	5.500
Low				4.500	4.500	4.500	4.500

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.074	.9763	4.842	5.244	.9742	5.003	H1.319
SDev	.004	.0008	.003	.013	.0035	.002	.001
%RSD	.0722	.0856	.0710	.2479	.3592	.0356	.0967
#1	5.072	.9757	4.840	5.235	.9767	5.005	H1.318
#2	5.077	.9769	4.845	5.254	.9717	5.002	H1.320
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	1.100	5.500	5.500	1.100	5.500	1.100
Low	4.500	.9000	4.500	4.500	.9000	4.500	.9000

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.880	1.027	4.845
SDev	.008	.002	.007
%RSD	.1554	.2074	.1516
#1	4.885	1.025	4.839
#2	4.875	1.028	4.850
Errors	LC Pass	LC Pass	LC Pass
High	5.500	1.100	5.500
Low	4.500	.9000	4.500

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	962826	10000	--	--	--	--	--
SDev	6417.701	.0000000	--	--	--	--	--
%RSD	.6665484	.0000000	--	--	--	--	--
#1	967364	10000	--	--	--	--	--
#2	958288	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCB3 Operator:
Run Time: 05/29/03 21:40:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0002	-.0009	.0016	-.0001	.0000	.0028
SDev	.0001	.0022	.0010	.0002	.0001	.0000	.0014
%RSD	43.78	943.9	108.8	11.26	180.3	55.93	51.50
#1	.0005	-.0013	-.0002	.0017	-.0002	.0000	.0038
#2	.0002	.0017	-.0017	.0014	.0000	.0000	.0017
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0025	.0002	.0011	-.0007	.0001	-.0212	-.0243
SDev	.0016	.0000	.0004	.0010	.0008	.0306	.0219
%RSD	63.17	16.50	40.41	131.5	768.7	144.7	90.15
#1	-.0036	.0002	.0008	-.0014	-.0004	.0005	-.0088
#2	-.0014	.0002	.0014	-.0001	.0006	L-.0428	-.0398
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0002	.0065	-.0001	.0017	L-.0898	.0096
SDev	.0000	.0001	.0031	.0002	.0003	.1952	.0034
%RSD	5.421	75.70	48.12	122.1	15.30	217.5	35.95
#1	.0006	-.0002	.0043	-.0002	.0019	.0483	.0071
#2	.0006	-.0001	.0087	-.0000	.0015	L-.2278	.0120
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	-.0027	.0075	-.0022	-.0040	.0045	-.0004
SDev	.0010	.0061	.0070	.0016	.0031	.0011	.0001
%RSD	214.3	228.3	93.17	73.66	76.49	24.75	28.71
#1	-.0011	-.0069	.0125	-.0033	-.0018	.0037	-.0004
#2	.0002	.0016	.0026	-.0010	L-.0062	.0053	-.0005
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	103.6	.0077	-.0035	.0035	.0011	.0002	-.0002
SDev	1.9	.0037	.0001	.0011	.0013	.0013	.0030
%RSD	1.812	47.69	2.242	32.37	118.6	552.1	1947.
#1	102.2	.0102	-.0034	.0027	.0020	.0011	.0020
#2	104.9	.0051	-.0035	.0044	.0002	-.0007	-.0023
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	T11908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0030	-.0002	.0037	.0239	-.0007	-.0005
SDev	.0000	.0026	.0002	.0001	.0132	.0011	.0022
%RSD	18.77	84.10	103.8	2.756	55.37	149.5	418.6
#1	.0000	-.0048	-.0003	.0038	.0333	-.0015	.0010
#2	.0001	-.0012	-.0001	.0036	.0146	.0000	-.0021
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0002	-.0002	-.0007
SDev	.0001	.0000	.0010
%RSD	64.59	2.664	137.9
#1	-.0002	-.0002	-.0014
#2	-.0001	-.0002	-.0000
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1042776	10000	--	--	--	--	--
SDev	18915.81	.0000000	--	--	--	--	--
%RSD	1.813985	.0000000	--	--	--	--	--
#1	1029401	10000	--	--	--	--	--
#2	1056152	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226238 Operator:
Run Time: 05/29/03 21:45:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0086	.0001	-.0005	.0422	.0000	.0018
SDev	.0015	.0074	.0014	.0001	.0002	.0000	.0025
%RSD	165.9	86.52	1025.	20.66	.5761	44.96	140.5
#1	-.0002	.0033	.0011	-.0006	.0424	.0000	.0000
#2	.0019	.0138	-.0008	-.0004	.0421	.0000	.0035

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	41.59	.0005	.0028	-.0006	.0009	.0195	.0673
SDev	.13	.0002	.0008	.0005	.0003	.0147	.0335
%RSD	.3245	41.17	27.62	88.07	29.06	75.62	49.71
#1	41.49	.0003	.0023	-.0002	.0011	.0091	.0436
#2	41.68	.0006	.0034	-.0009	.0007	.0299	.0909

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0001	.0112	.0009	-.0004	.3511	.0283
SDev	.0015	.0001	.0093	.0000	.0008	.4096	.0019
%RSD	151.5	92.23	82.76	.3607	196.6	116.7	6.614
#1	-.0001	.0000	.0047	.0009	.0002	.0614	.0270
#2	.0021	.0002	.0178	.0009	-.0010	.6407	.0296

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	-.0017	.0062	-.0026	.0046	.0062	-.0006
SDev	.0008	.0016	.0043	.0016	.0053	.0052	.0028
%RSD	69.29	90.84	69.67	62.67	116.7	84.53	450.2
#1	-.0006	-.0028	.0031	-.0014	.0008	.0025	.0013
#2	-.0018	-.0006	.0092	-.0038	.0084	.0099	-.0026

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.1	.0048	-.0041	3.317	.0003	-.0011	.0007
SDev	1.8	.0064	.0045	.011	.0003	.0009	.0036
%RSD	1.797	131.6	109.0	.3167	101.2	77.42	543.2
#1	101.3	.0003	-.0009	3.309	.0001	-.0005	-.0019
#2	98.79	.0094	-.0073	3.324	.0006	-.0018	.0032

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0277	-.0008	-.0002	.0010	.1876	-.0003	.0020
SDev	.0001	.0038	.0001	.0020	.0450	.0004	.0061
%RSD	.1899	484.1	68.48	195.1	23.99	149.3	308.2
#1	.0277	.0019	-.0001	-.0004	.1558	.0000	-.0023
#2	.0278	-.0035	-.0002	.0024	.2194	-.0006	.0063

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0006	-.0003
SDev	.0001	.0005	.0001
%RSD	89.32	73.74	42.81
#1	-.0000	.0003	-.0002
#2	-.0002	.0010	-.0004

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1007344	10000	--	--	--	--	--
SDev	18097.69	.0000000	--	--	--	--	--
%RSD	1.796575	.0000000	--	--	--	--	--
#1	1020141	10000	--	--	--	--	--
#2	994547	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226239 Operator:
Run Time: 05/29/03 21:50:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0093	-.0016	-.0020	.0427	.0000	.0012
SDev	.0001	.0041	.0016	.0000	.0001	.0000	.0064
%RSD	8.013	44.41	99.16	.7840	.2899	21.11	517.2
#1	.0008	.0122	-.0005	-.0020	.0428	.0000	.0057
#2	.0007	.0064	-.0027	-.0020	.0426	.0000	-.0033

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	42.46	.0003	.0024	-.0006	.0001	.0197	.0426
SDev	.27	.0002	.0005	.0004	.0005	.0122	.0102
%RSD	.6451	73.94	19.20	72.21	431.6	61.84	23.92
#1	42.26	.0005	.0027	-.0009	-.0002	.0284	.0498
#2	42.65	.0001	.0021	-.0003	.0005	.0111	.0354

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0001	.0103	.0009	-.0010	.4276	.0310
SDev	.0008	.0000	.0052	.0000	.0003	.0757	.0083
%RSD	57.73	5.143	50.64	4.124	31.67	17.70	26.85
#1	.0019	.0001	.0139	.0009	-.0008	.4811	.0369
#2	.0008	.0001	.0066	.0010	-.0012	.3740	.0251

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	-.0017	.0058	-.0032	.0050	.0130	-.0003
SDev	.0011	.0071	.0039	.0035	.0011	.0004	.0036
%RSD	158.2	429.3	66.43	108.1	21.90	3.169	1061.
#1	-.0015	.0034	.0086	-.0057	.0058	.0127	.0022
#2	.0001	-.0067	.0031	-.0008	.0043	.0132	-.0029

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.1	.0048	-.0047	3.394	-.0002	-.0016	.0016
SDev	2.3	.0029	.0002	.004	.0010	.0011	.0005
%RSD	2.278	61.26	4.617	.1232	540.3	72.42	28.78
#1	101.7	.0027	-.0049	3.391	-.0009	-.0023	.0013
#2	98.45	.0069	-.0046	3.397	.0005	-.0008	.0020

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0282	-.0024	-.0002	-.0010	.3377	-.0003	.0025
SDev	.0001	.0034	.0003	.0005	.0313	.0003	.0022
%RSD	.4961	143.6	148.1	53.33	9.270	98.42	87.58
#1	.0283	-.0048	-.0004	-.0006	.3599	-.0005	.0041
#2	.0281	.0000	.0000	-.0014	.3156	-.0001	.0010

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0002	.0008	-.0000
SDev	.0000	.0000	.0001
%RSD	.3147	3.450	286.5
#1	-.0002	.0008	.0000
#2	-.0002	.0008	-.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1007396	10000	--	--	--	--	--
SDev	22929.35	.0000000	--	--	--	--	--
%RSD	2.276100	.0000000	--	--	--	--	--
#1	1023610	10000	--	--	--	--	--
#2	991183	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226240 Operator:
Run Time: 05/29/03 21:55:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0111	.0007	-.0017	.0441	.0000	.0014
SDev	.0011	.0031	.0001	.0002	.0001	.0000	.0042
%RSD	300.4	28.40	21.42	11.98	.3220	37.24	304.2
#1	-.0004	.0088	.0008	-.0018	.0440	.0000	-.0016
#2	.0011	.0133	.0006	-.0015	.0442	.0001	.0043

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	43.48	.0002	.0026	.0009	.0021	.0033	.0236
SDev	.04	.0001	.0008	.0005	.0005	.0120	.0207
%RSD	.0864	65.31	28.70	56.63	22.27	360.6	87.80
#1	43.45	.0003	.0021	.0006	.0018	-.0051	.0089
#2	43.50	.0001	.0032	.0013	.0025	.0118	.0382

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	-.0000	.0071	.0016	-.0014	.1186	.0283
SDev	.0011	.0000	.0124	.0001	.0000	.2170	.0043
%RSD	101.0	1131.	175.4	7.333	2.062	183.0	15.11
#1	.0003	-.0000	-.0017	.0015	-.0014	-.0349	.0253
#2	.0018	.0000	.0159	.0017	-.0014	.2720	.0313

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	.0038	.0031	-.0020	.0011	.0046	.0016
SDev	.0004	.0001	.0060	.0016	.0032	.0065	.0001
%RSD	32.37	1.453	193.4	79.10	306.3	139.8	9.366
#1	.0015	.0037	-.0011	-.0009	-.0012	.0001	.0015
#2	.0009	.0038	.0074	-.0031	.0033	.0092	.0017

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.2	.0006	-.0029	3.461	-.0003	-.0018	.0002
SDev	.4	.0019	.0014	.006	.0010	.0003	.0014
%RSD	.3646	315.1	47.55	.1650	355.6	17.02	910.3
#1	100.5	-.0007	-.0020	3.457	-.0010	-.0015	-.0008
#2	99.97	.0019	-.0039	3.465	.0004	-.0020	.0011

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0290	.0011	.0000	-.0001	.1583	.0004	.0004
SDev	.0000	.0010	.0001	.0020	.0356	.0005	.0040
%RSD	.1271	88.65	387.7	2520.	22.49	115.1	918.9
#1	.0290	.0004	-.0000	.0014	.1332	.0001	-.0024
#2	.0291	.0018	.0001	-.0015	.1835	.0007	.0032

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0014	.0005
SDev	.0001	.0001	.0014
%RSD	278.8	3.642	277.2
#1	-.0000	.0014	-.0005
#2	.0001	.0014	.0015

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1009118	10000	--	--	--	--	--
SDev	3703.825	.0000000	--	--	--	--	--
%RSD	.3670359	.0000000	--	--	--	--	--
#1	1011737	10000	--	--	--	--	--
#2	1006499	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226241 Operator:
Run Time: 05/29/03 21:59:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.0131	.0007	-.0031	.0449	.0000	.0106
SDev	.0014	.0077	.0007	.0003	.0003	.0000	.0043
%RSD	81.80	58.63	99.14	8.709	.6784	36.27	41.07
#1	.0007	.0077	.0012	-.0029	.0451	.0000	.0075
#2	.0026	.0186	.0002	-.0033	.0447	.0000	.0136

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	44.98	.0005	.0017	.0002	.0004	.0409	.0500
SDev	.35	.0002	.0009	.0004	.0002	.0304	.0403
%RSD	.7716	34.89	49.90	188.0	60.67	74.41	80.46
#1	44.74	.0004	.0011	-.0001	.0005	.0194	.0216
#2	45.23	.0006	.0023	.0005	.0002	.0624	.0785

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.0001	.0211	.0014	-.0020	.6265	.0326
SDev	.0016	.0001	.0109	.0001	.0005	.4081	.0012
%RSD	69.31	127.8	51.42	9.542	26.74	65.15	3.666
#1	.0012	.0000	.0134	.0013	-.0017	.3379	.0335
#2	.0034	.0002	.0288	.0015	-.0024	.9151	.0318

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	-.0116	.0033	-.0026	.0087	.0057	-.0001
SDev	.0004	.0064	.0047	.0032	.0081	.0008	.0017
%RSD	111.6	55.66	142.3	122.9	93.51	14.71	1193.
#1	.0007	-.0070	.0066	-.0049	.0030	.0063	.0011
#2	.0001	-.0161	-.0000	-.0003	.0145	.0051	-.0014

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.97	-.0004	-.0046	3.575	-.0006	-.0032	.0016
SDev	3.28	.0078	.0027	.002	.0006	.0008	.0006
%RSD	3.316	1757.	57.49	.0694	92.50	25.16	40.14
#1	101.3	.0051	-.0065	3.573	-.0011	-.0027	.0012
#2	96.64	-.0060	-.0028	3.577	-.0002	-.0038	.0021

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0299	-.0033	-.0002	.0008	.3688	-.0002	.0025
SDev	.0000	.0040	.0001	.0013	.0417	.0009	.0030
%RSD	.0898	121.9	39.43	166.4	11.31	406.2	116.8
#1	.0299	-.0005	-.0002	.0017	.3393	.0004	.0004
#2	.0299	-.0061	-.0003	-.0001	.3983	-.0009	.0046

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0016	-.0004
SDev	.0001	.0006	.0000
%RSD	180.8	39.42	6.833
#1	.0000	.0012	-.0004
#2	-.0001	.0021	-.0004

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	996358	10000	--	--	--	--	--
SDev	33042.39	.0000000	--	--	--	--	--
%RSD	3.316319	.0000000	--	--	--	--	--
#1	1019722	10000	--	--	--	--	--
#2	972993	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCV4 Operator:
Run Time: 05/29/03 22:08:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9974	9.849	4.990	4.805	9.845	.9687	5.054
SDev	.0005	.016	.006	.017	.008	.0017	.016
%RSD	.0516	.1615	.1168	.3606	.0834	.1723	.3244
#1	.9978	9.860	4.986	4.793	9.839	.9675	5.066
#2	.9971	9.838	4.994	4.817	9.851	.9699	5.042
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.100	11.00	5.500	5.500	11.00	1.100	5.500
Low	.9000	9.000	4.500	4.500	9.000	.9000	4.500

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.89	1.033	5.055	1.915	1.981	10.29	18.38
SDev	.01	.000	.004	.003	.000	.02	.07
%RSD	.0653	.0256	.0724	.1719	.0208	.2341	.3802
#1	19.88	1.034	5.058	1.913	1.981	10.31	18.43
#2	19.90	1.033	5.053	1.917	1.980	10.27	18.33
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	22.00	1.100	5.500	2.200	2.200	11.00	22.00
Low	18.00	.9000	4.500	1.800	1.800	9.000	18.00

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.932	4.826	19.97	1.019	5.121	27.83	H40.97
SDev	.002	.008	.00	.000	.019	.10	.15
%RSD	.0311	.1718	.0196	.0412	.3772	.3681	.3607
#1	4.933	4.831	19.96	1.019	5.107	27.90	H41.07
#2	4.931	4.820	19.97	1.020	5.135	27.76	H40.86
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	5.500	22.00	1.100	5.500	33.00	33.00
Low	4.500	4.500	18.00	.9000	4.500	27.00	27.00

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.781	4.925	5.117	5.062	.9974	1.006	.9931
SDev	.010	.015	.006	.013	.0024	.004	.0029
%RSD	.2125	.2983	.1216	.2595	.2411	.4308	.2921
#1	4.773	4.935	5.112	5.071	.9991	1.009	.9911
#2	4.788	4.914	5.121	5.052	.9957	1.003	.9952
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	5.500	5.500			1.100	1.100	1.100
Low	4.500	4.500			.9000	.9000	.9000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.16	5.189	5.162	5.068	5.080	5.171	4.951
SDev	.41	.004	.050	.014	.007	.032	.007
%RSD	.4340	.0840	.9650	.2682	.1315	.6141	.1406
#1	95.45	5.186	5.197	5.078	5.085	5.193	4.946
#2	94.87	5.192	5.127	5.059	5.075	5.148	4.956
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				5.500	5.500	5.500	5.500
Low				4.500	4.500	4.500	4.500

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.069	.9800	4.843	5.241	.9843	5.002	H1.326
SDev	.005	.0037	.007	.020	.0188	.002	.001
%RSD	.1039	.3803	.1362	.3775	1.911	.0488	.0899
#1	5.065	.9774	4.838	5.227	.9976	5.000	H1.326
#2	5.073	.9826	4.848	5.255	.9710	5.004	H1.327
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	1.100	5.500	5.500	1.100	5.500	1.100
Low	4.500	.9000	4.500	4.500	.9000	4.500	.9000

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.874	1.031	4.842
SDev	.002	.003	.006
%RSD	.0402	.2625	.1294
#1	4.873	1.029	4.837
#2	4.876	1.033	4.846
Errors	LC Pass	LC Pass	LC Pass
High	5.500	1.100	5.500
Low	4.500	.9000	4.500

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	958042	10000	--	--	--	--	--
SDev	4198.093	.0000000	--	--	--	--	--
%RSD	.4381949	.0000000	--	--	--	--	--
#1	961011	10000	--	--	--	--	--
#2	955074	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCB4 Operator:
Run Time: 05/29/03 22:14:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0013	.0024	.0042	.0002	.0001	.0017
SDev	.0011	.0001	.0020	.0007	.0000	.0000	.0006
%RSD	127.5	10.66	82.65	16.56	15.94	3.994	35.30
#1	.0001	.0014	.0038	.0047	.0002	.0000	.0013
#2	.0016	.0012	.0010	.0037	.0002	.0001	.0022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0021	.0003	.0004	.0012	.0012	.0111	.0148
SDev	.0012	.0003	.0009	.0001	.0002	.0209	.0296
%RSD	56.89	93.92	234.2	10.03	15.54	187.3	200.3
#1	-.0030	.0001	-.0002	.0011	.0011	-.0036	-.0062
#2	-.0013	.0006	.0010	.0013	.0013	H.0259	.0357
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0001	.0046	.0002	.0014	H.2469	.0065
SDev	.0009	.0001	.0072	.0001	.0008	.1908	.0022
%RSD	64.41	56.00	158.2	33.27	58.54	77.28	34.22
#1	.0008	.0001	-.0005	.0001	.0020	H.1120	.0049
#2	.0021	.0002	.0097	.0002	.0008	H.3819	.0081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0070	.0022	-.0005	.0026	.0024	.0015
SDev	.0008	.0107	.0057	.0019	.0040	.0085	.0004
%RSD	221.0	153.8	260.9	416.3	152.6	356.9	26.00
#1	-.0002	.0006	-.0018	.0009	-.0002	.0084	.0018
#2	.0009	L-.0145	.0062	-.0018	H.0054	-.0036	.0012
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.58	.0012	.0002	.0075	.0004	.0005	.0004
SDev	1.11	.0011	.0001	.0050	.0006	.0005	.0016
%RSD	1.119	94.22	74.78	66.29	143.4	87.80	398.4
#1	100.4	.0004	.0001	.0040	-.0000	.0002	.0015
#2	98.79	.0019	.0003	H.0110	.0009	.0009	-.0007
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0027	.0003	.0022	.0436	.0009	.0029
SDev	.0000	.0009	.0000	.0008	.0170	.0004	.0010
%RSD	29.70	33.58	13.14	35.05	39.02	48.16	35.36
#1	.0001	.0021	.0003	.0027	.0316	.0006	.0037
#2	.0001	.0034	.0003	.0016	.0556	.0012	.0022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0002	-.0002	.0009
SDev	.0001	.0003	.0005
%RSD	43.41	117.6	58.36
#1	.0001	-.0004	.0005
#2	.0002	-.0000	.0012
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1002524	10000	--	--	--	--	--
SDev	11233.81	.0000000	--	--	--	--	--
%RSD	1.120552	.0000000	--	--	--	--	--
#1	1010468	10000	--	--	--	--	--
#2	994581	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: pbw-E29W3 pg54-037 Operator:
Run Time: 05/29/03 22:19:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0109	.0012	.0005	.0001	.0000	.0003
SDev	.0015	.0110	.0031	.0002	.0001	.0000	.0001
%RSD	349.0	100.9	253.1	30.27	60.54	46.00	24.81
#1	-.0006	.0031	-.0010	.0006	.0002	.0000	.0004
#2	.0015	.0186	.0035	.0004	.0001	.0001	.0003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0090	.0002	.0005	.0009	.0012	H.0526	.0603
SDev	.0080	.0002	.0006	.0001	.0003	.0816	.0846
%RSD	88.58	85.61	110.0	13.53	22.09	155.2	140.3
#1	.0034	.0001	.0001	.0008	.0014	-.0051	.0005
#2	.0147	.0004	.0009	.0010	.0010	H.1103	H.1201
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0002	.0060	.0002	.0003	H.5631	.0145
SDev	.0021	.0003	.0121	.0001	.0001	1.012	.0076
%RSD	254.1	122.8	201.1	49.86	27.03	179.7	51.96
#1	-.0007	.0000	-.0025	.0001	.0002	L-.1523	.0092
#2	.0023	.0004	.0146	.0002	.0003	H1.278	.0199
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	L-.0126	.0080	-.0011	H.0096	.0039	.0023
SDev	.0001	.0033	.0010	.0009	.0166	.0018	.0026
%RSD	18.51	26.26	13.07	78.82	171.9	45.21	112.9
#1	.0007	L-.0102	.0072	-.0005	-.0021	.0026	.0041
#2	.0009	L-.0149	.0087	-.0018	H.0213	.0051	.0005
Errors	LC Pass	LC Low	NOCHECK	NOCHECK	LC High	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.96	.0049	-.0039	H.0116	.0019	-.0010	.0009
SDev	3.80	.0052	.0001	.0086	.0002	.0018	.0012
%RSD	4.005	107.3	3.166	73.85	12.52	190.0	132.4
#1	97.65	.0012	-.0040	.0056	.0021	-.0022	.0001
#2	92.27	.0085	-.0038	H.0177	.0018	.0003	.0017
Errors	NOCHECK	NOCHECK	NOCHECK	LC High	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0010	.0001	-.0008	.0255	.0003	.0042
SDev	.0001	.0023	.0001	.0011	.0568	.0006	.0038
%RSD	76.90	230.5	124.2	137.4	223.3	220.0	91.23
#1	.0000	.0026	.0001	-.0000	-.0147	.0007	.0015
#2	.0002	-.0006	.0000	-.0016	.0656	-.0001	.0069
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0004	.0003
SDev	.0001	.0006	.0002
%RSD	99.38	174.9	61.43
#1	.0001	-.0001	.0002
#2	.0000	.0008	.0004
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	956076	10000	--	--	--	--	--
SDev	38229.73	.0000000	--	--	--	--	--
%RSD	3.998606	.0000000	--	--	--	--	--
#1	983109	10000	--	--	--	--	--
#2	929044	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: lcsw-E29W3 Operator:
Run Time: 05/29/03 22:23:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0460	1.958	2.019	-.0011	2.054	.0488	-.0017
SDev	.0003	.001	.002	.0025	.004	.0003	.0024
%RSD	.7694	.0338	.0827	229.8	.1863	.5182	142.6
#1	.0463	1.957	2.021	.0007	2.052	.0490	.0000
#2	.0458	1.958	2.018	-.0028	2.057	.0487	-.0033

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.72	.0518	.5104	.1940	.2528	1.107	16.92
SDev	.15	.0002	.0021	.0030	.0006	.009	.13
%RSD	.7521	.4502	.4012	1.533	.2398	.8068	.7613
#1	19.83	.0520	.5119	.1961	.2533	1.100	16.83
#2	19.62	.0516	.5090	.1919	.2524	1.113	17.01

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0002	20.02	.5098	-.0015	17.89	26.43
SDev	.0003	.0001	.06	.0020	.0011	.30	.17
%RSD	22.89	42.86	.2869	.3918	75.69	1.674	.6405
#1	.0013	.0001	20.06	.5112	-.0007	17.68	26.31
#2	.0009	.0003	19.97	.5084	-.0022	18.11	26.55

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4838	.0035	.5183	.5160	.0040	-.0036	.4937
SDev	.0047	.0028	.0067	.0091	.0020	.0018	.0019
%RSD	.9665	79.75	1.298	1.762	49.99	48.20	.3771
#1	.4871	.0055	.5231	.5225	.0026	-.0024	.4950
#2	.4805	.0015	.5136	.5096	.0055	-.0049	.4924

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.61	2.062	2.063	4.156	.5168	2.062	.0024
SDev	1.96	.058	.015	.012	.0083	.029	.0016
%RSD	2.073	2.807	.7073	.2895	1.607	1.407	68.37
#1	93.22	2.103	2.073	4.164	.5227	2.083	.0036
#2	95.99	2.021	2.052	4.147	.5109	2.042	.0012

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0167	-.0003	2.096	.0344	.5063	.0011
SDev	.0000	.0042	.0005	.012	.0225	.0032	.0003
%RSD	3.874	24.84	173.0	.5599	65.32	.6231	31.31
#1	.0006	-.0138	.0001	2.104	.0503	.5085	.0008
#2	.0006	-.0197	-.0006	2.087	.0185	.5041	.0013

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0003	.5138	-.0003
SDev	.0003	.0037	.0018
%RSD	113.7	.7234	594.8
#1	-.0001	.5165	.0009
#2	-.0005	.5112	-.0015

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	952456	10000	--	--	--	--	--
SDev	19739.59	.0000000	--	--	--	--	--
%RSD	2.072494	.0000000	--	--	--	--	--
#1	938498	10000	--	--	--	--	--
#2	966414	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226242 Operator:
Run Time: 05/29/03 22:28:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0113	-.0014	-.0009	.0469	.0000	.0018
SDev	.0005	.0023	.0002	.0015	.0003	.0000	.0005
%RSD	144.2	20.27	16.86	164.7	.7125	96.33	28.62
#1	-.0000	.0097	-.0016	.0002	.0471	.0000	.0015
#2	.0007	.0129	-.0012	-.0020	.0467	.0000	.0022

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	47.37	.0001	.0001	.0005	.0017	.0094	.0394
SDev	.21	.0001	.0000	.0009	.0002	.0092	.0091
%RSD	.4448	93.56	10.52	197.8	13.14	97.65	22.95
#1	47.22	.0002	.0001	.0011	.0019	.0159	.0458
#2	47.52	.0000	.0001	-.0002	.0015	.0029	.0330

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0001	.0112	.0014	-.0015	.1993	.0280
SDev	.0003	.0001	.0021	.0001	.0008	.0434	.0069
%RSD	25.92	55.31	18.38	4.962	55.03	21.79	24.87
#1	.0008	.0002	.0098	.0015	-.0009	.1686	.0329
#2	.0011	.0001	.0127	.0014	-.0021	.2300	.0230

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	-.0064	.0042	-.0031	.0023	.0048	.0031
SDev	.0010	.0040	.0006	.0010	.0033	.0030	.0039
%RSD	82.03	62.27	14.67	33.44	139.9	61.93	123.3
#1	.0019	-.0036	.0046	-.0024	.0047	.0027	.0059
#2	.0005	-.0091	.0037	-.0039	.0000	.0069	.0004

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.37	.0061	-.0032	3.751	-.0007	-.0001	-.0009
SDev	1.33	.0033	.0013	.006	.0009	.0020	.0006
%RSD	1.392	54.21	42.60	.1655	132.8	3104.	67.07
#1	96.31	.0084	-.0022	3.746	-.0000	.0013	-.0005
#2	94.43	.0038	-.0041	3.755	-.0013	-.0015	-.0013

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0309	-.0002	-.0000	.0002	.2204	.0006	.0010
SDev	.0000	.0031	.0002	.0011	.0011	.0013	.0018
%RSD	.0331	1425.	672.1	456.1	.5074	216.6	182.6
#1	.0309	.0020	.0001	.0010	.2212	.0015	-.0003
#2	.0309	-.0024	-.0002	-.0005	.2196	-.0003	.0023

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0005	-.0002
SDev	.0002	.0001	.0005
%RSD	819.7	27.94	362.2
#1	.0002	.0006	.0002
#2	-.0001	.0004	-.0005

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	960215	10000	--	--	--	--	--
SDev	13415.23	.0000000	--	--	--	--	--
%RSD	1.397107	.0000000	--	--	--	--	--
#1	969701	10000	--	--	--	--	--
#2	950729	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226242d Operator:
Run Time: 05/29/03 22:33:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0112	-.0015	-.0013	.0468	-.0000	.0029
SDev	.0011	.0047	.0031	.0001	.0000	.0000	.0049
%RSD	752.6	41.84	205.2	10.18	.0353	128.6	165.8
#1	.0009	.0146	.0007	-.0014	.0468	-.0000	.0064
#2	-.0006	.0079	-.0037	-.0012	.0469	-.0000	-.0005

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	47.98	.0001	.0006	.0009	.0012	.0214	.0338
SDev	.01	.0001	.0004	.0006	.0007	.0081	.0055
%RSD	.0135	136.2	62.05	66.80	60.27	37.84	16.41
#1	47.98	.0002	.0009	.0005	.0007	.0271	.0377
#2	47.97	.0000	.0004	.0014	.0018	.0157	.0299

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0001	.0047	.0018	-.0021	.1600	.0099
SDev	.0005	.0001	.0058	.0000	.0004	.0572	.0003
%RSD	101.5	71.37	123.7	.4701	19.27	35.73	3.471
#1	.0008	.0001	.0088	.0018	-.0024	.2004	.0102
#2	.0001	.0000	.0006	.0018	-.0018	.1196	.0097

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	-.0028	.0048	-.0021	.0027	.0082	.0001
SDev	.0014	.0004	.0001	.0006	.0015	.0019	.0058
%RSD	318.4	13.86	1.535	27.05	54.65	23.53	10840.
#1	-.0005	-.0025	.0048	-.0017	.0038	.0068	-.0040
#2	.0014	-.0031	.0049	-.0025	.0017	.0095	.0041

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	92.80	.0016	-.0046	3.764	.0002	-.0026	-.0010
SDev	.35	.0013	.0026	.004	.0003	.0022	.0004
%RSD	.3790	79.48	56.97	.0948	141.0	85.10	41.99
#1	92.55	.0025	-.0028	3.762	.0005	-.0010	-.0007
#2	93.05	.0007	-.0065	3.767	.0000	-.0041	-.0013

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0312	.0005	-.0000	-.0026	.2074	-.0000	-.0004
SDev	.0000	.0020	.0001	.0009	.0377	.0002	.0031
%RSD	.0442	446.0	434.6	33.99	18.17	433.3	848.7
#1	.0312	-.0010	-.0001	-.0020	.2340	-.0002	.0018
#2	.0312	.0019	.0001	-.0032	.1808	.0001	-.0026

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0006	-.0004
SDev	.0000	.0000	.0002
%RSD	227.9	2.936	50.61
#1	-.0000	.0006	-.0003
#2	.0000	.0006	-.0006

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	934270	10000	--	--	--	--	--
SDev	3495.229	.0000000	--	--	--	--	--
%RSD	.3741131	.0000000	--	--	--	--	--
#1	931799	10000	--	--	--	--	--
#2	936742	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226243 Operator:
Run Time: 05/29/03 22:38:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0059	-.0005	-.0014	.0483	.0000	-.0010
SDev	.0010	.0036	.0007	.0011	.0001	.0000	.0005
%RSD	403.0	60.37	148.3	78.91	.2658	669.7	45.37
#1	-.0009	.0034	-.0010	-.0021	.0482	-.0000	-.0007
#2	.0004	.0084	.0000	-.0006	.0484	.0000	-.0013

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.76	.0001	.0006	.0011	.0021	.0146	.0181
SDev	.02	.0004	.0011	.0013	.0012	.0369	.0452
%RSD	.0337	338.8	183.3	115.9	56.43	252.6	250.3
#1	48.75	-.0002	-.0002	.0002	.0013	-.0115	-.0139
#2	48.77	.0004	.0014	.0020	.0029	.0407	.0501

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0000	.0054	.0016	-.0015	.1722	.0270
SDev	.0011	.0001	.0121	.0002	.0002	.2900	.0114
%RSD	886.5	467.1	226.5	10.94	12.66	168.4	42.02
#1	-.0009	-.0001	-.0032	.0015	-.0017	-.0329	.0190
#2	.0007	.0001	.0139	.0018	-.0014	.3773	.0351

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	-.0063	-.0010	.0002	.0016	.0149	.0062
SDev	.0015	.0125	.0034	.0018	.0085	.0065	.0047
%RSD	150.8	198.9	333.8	798.5	527.6	43.24	75.71
#1	-.0001	.0026	.0014	-.0011	-.0044	.0195	.0029
#2	.0020	-.0152	-.0035	.0015	.0076	.0104	.0094

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.09	-.0030	.0001	3.875	-.0002	-.0009	-.0013
SDev	.53	.0029	.0010	.003	.0001	.0003	.0008
%RSD	.5468	97.09	1119.	.0820	34.22	29.79	57.81
#1	96.72	-.0009	-.0006	3.873	-.0002	-.0007	-.0019
#2	97.47	-.0051	.0008	3.878	-.0001	-.0011	-.0008

Elem	Sr4215	Th2837	Ti3349	T11908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0321	.0044	.0001	-.0000	.3151	.0008	.0014
SDev	.0000	.0024	.0005	.0012	.0377	.0008	.0006
%RSD	.0921	54.11	340.8	6880.	11.96	96.33	41.68
#1	.0320	.0027	-.0002	.0008	.2885	.0003	.0010
#2	.0321	.0060	.0005	-.0009	.3418	.0014	.0018

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0002	.0022	.0004
SDev	.0002	.0002	.0013
%RSD	97.05	7.213	331.9
#1	.0001	.0021	-.0005
#2	.0004	.0023	.0013

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	977452	10000	--	--	--	--	--
SDev	5377.547	.0000000	--	--	--	--	--
%RSD	.5501594	.0000000	--	--	--	--	--
#1	973650	10000	--	--	--	--	--
#2	981255	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226243s Operator:
Run Time: 05/29/03 22:42:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0463	1.978	2.052	-.0029	2.087	.0495	.0022
SDev	.0010	.006	.011	.0003	.000	.0000	.0065
%RSD	2.222	.3278	.5404	10.05	.0141	.0830	293.6
#1	.0456	1.973	2.044	-.0031	2.087	.0495	-.0024
#2	.0470	1.982	2.059	-.0027	2.088	.0496	.0069

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	69.05	.0524	.5141	.1955	.2530	1.123	17.64
SDev	.04	.0002	.0004	.0006	.0002	.005	.01
%RSD	.0610	.3119	.0858	.3075	.0621	.4605	.0343
#1	69.08	.0525	.5137	.1951	.2531	1.127	17.64
#2	69.02	.0523	.5144	.1959	.2529	1.119	17.64

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0002	20.44	.5164	-.0018	18.60	27.36
SDev	.0011	.0001	.00	.0005	.0000	.05	.03
%RSD	80.96	26.88	.0238	.0964	.0962	.2587	.0963
#1	.0006	.0002	20.44	.5161	-.0018	18.57	27.35
#2	.0021	.0002	20.45	.5168	-.0018	18.64	27.38

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4905	.0021	.5322	.5176	.0067	.0165	.4998
SDev	.0003	.0112	.0031	.0005	.0014	.0012	.0003
%RSD	.0710	519.6	.5754	.0941	21.56	7.388	.0584
#1	.4903	-.0057	.5343	.5179	.0057	.0174	.4996
#2	.4908	.0100	.5300	.5172	.0077	.0156	.5000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	90.99	2.105	2.092	8.114	.5224	2.096	.0004
SDev	.25	.009	.001	.011	.0014	.002	.0006
%RSD	.2801	.4266	.0426	.1337	.2575	.1145	161.2
#1	91.17	2.111	2.092	8.107	.5234	2.098	.0008
#2	90.81	2.098	2.093	8.122	.5215	2.095	-.0001

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0322	-.0132	-.0001	2.118	.3476	.5139	.0035
SDev	.0000	.0002	.0001	.000	.0327	.0001	.0003
%RSD	.0376	1.183	168.2	.0110	9.402	.0201	7.178
#1	.0322	-.0131	-.0002	2.118	.3245	.5138	.0033
#2	.0322	-.0134	.0000	2.118	.3707	.5139	.0037

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.5234	-.0002
SDev	.0001	.0011	.0003
%RSD	168.5	.2056	170.5
#1	-.0000	.5226	-.0003
#2	.0001	.5241	.0000

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	916040	10000	--	--	--	--	--
SDev	2610.638	.0000000	--	--	--	--	--
%RSD	.2849917	.0000000	--	--	--	--	--
#1	917886	10000	--	--	--	--	--
#2	914194	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226244 Operator:
Run Time: 05/29/03 22:47:27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0127	.0017	-.0031	.0190	-.0000	.0012
SDev	.0001	.0005	.0007	.0011	.0001	.0000	.0026
%RSD	25.70	4.091	41.26	33.68	.2847	217.9	209.0
#1	.0004	.0123	.0012	-.0024	.0191	.0000	.0030
#2	.0003	.0131	.0022	-.0039	.0190	-.0000	-.0006

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	41.25	.0002	.0005	-.0000	.0731	-.0021	.0125
SDev	.13	.0003	.0000	.0007	.0013	.0068	.0079
%RSD	.3197	142.0	.5523	2581.	1.714	330.6	62.96
#1	41.34	-.0000	.0005	.0005	.0740	-.0069	.0070
#2	41.15	.0004	.0005	-.0006	.0722	.0027	.0181

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0001	.0093	.0005	-.0016	.1423	.0133
SDev	.0005	.0000	.0027	.0000	.0001	.0824	.0044
%RSD	62.08	22.39	28.46	4.837	8.466	57.94	32.95
#1	.0005	.0001	.0074	.0005	-.0017	.0840	.0102
#2	.0012	.0001	.0112	.0005	-.0015	.2005	.0164

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0094	.0040	-.0022	.0023	.0047	.0017
SDev	.0004	.0085	.0004	.0010	.0018	.0057	.0011
%RSD	166.2	90.26	11.03	44.32	77.11	121.6	64.92
#1	.0005	-.0154	.0037	-.0015	.0011	.0007	.0024
#2	-.0000	-.0034	.0043	-.0029	.0036	.0088	.0009

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.34	.0018	-.0018	3.286	-.0001	-.0006	.0073
SDev	.69	.0006	.0011	.001	.0005	.0005	.0001
%RSD	.7190	32.55	58.12	.0173	468.9	83.18	1.684
#1	94.85	.0014	-.0011	3.286	.0002	-.0003	.0072
#2	95.82	.0022	-.0026	3.285	-.0005	-.0010	.0074

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0267	.0004	-.0001	-.0020	.0722	.0001	.0007
SDev	.0000	.0026	.0001	.0007	.0169	.0006	.0011
%RSD	.0492	635.6	165.0	33.84	23.33	442.5	147.2
#1	.0267	.0023	.0000	-.0025	.0603	.0006	-.0000
#2	.0267	-.0014	-.0001	-.0015	.0842	-.0003	.0015

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0003	-.0001
SDev	.0000	.0000	.0005
%RSD	33.28	10.12	408.1
#1	-.0001	.0003	.0002
#2	-.0001	.0002	-.0005

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	959874	10000	--	--	--	--	--
SDev	6956.517	.0000000	--	--	--	--	--
%RSD	.7247323	.0000000	--	--	--	--	--
#1	954955	10000	--	--	--	--	--
#2	964793	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226245 Operator:
Run Time: 05/29/03 22:52:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0093	.0022	-.0026	.0516	.0000	.0033
SDev	.0006	.0000	.0014	.0014	.0001	.0000	.0027
%RSD	139.9	.3847	62.43	52.90	.1889	127.9	81.09
#1	.0000	.0093	.0031	-.0036	.0515	.0000	.0052
#2	.0008	.0093	.0012	-.0016	.0516	.0000	.0014

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.16	.0001	.0036	.0003	.0015	.0236	.0830
SDev	.01	.0001	.0007	.0008	.0005	.0028	.0053
%RSD	.0184	67.40	20.46	244.3	30.73	11.85	6.415
#1	50.16	.0001	.0031	-.0002	.0012	.0256	.0793
#2	50.15	.0001	.0041	.0009	.0019	.0217	.0868

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0001	.0092	.0016	-.0017	.3630	.0168
SDev	.0001	.0000	.0071	.0001	.0004	.0544	.0017
%RSD	9.253	.7209	77.10	6.792	23.45	15.00	10.28
#1	.0009	.0001	.0042	.0015	-.0020	.3245	.0180
#2	.0008	.0001	.0142	.0017	-.0014	.4015	.0156

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0007	.0002	.0005	.0043	.0043	-.0004
SDev	.0004	.0069	.0023	.0014	.0008	.0085	.0044
%RSD	209.6	955.1	1475.	262.4	17.44	197.5	1175.
#1	-.0001	.0042	.0018	-.0005	.0038	.0104	-.0035
#2	.0004	-.0056	-.0015	.0015	.0049	-.0017	.0028

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.09	.0023	-.0002	3.947	.0004	.0007	-.0003
SDev	.55	.0031	.0009	.002	.0002	.0016	.0011
%RSD	.5874	132.4	491.1	.0434	37.32	237.7	334.1
#1	93.48	.0045	.0004	3.946	.0003	.0018	-.0011
#2	92.70	.0001	-.0008	3.948	.0005	-.0005	.0004

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0324	.0012	.0000	-.0007	.3978	.0005	.0007
SDev	.0000	.0039	.0004	.0019	.0198	.0011	.0006
%RSD	.0062	335.5	3902.	267.3	4.967	220.6	75.82
#1	.0324	-.0016	-.0002	.0006	.3839	-.0003	.0011
#2	.0324	.0039	.0003	-.0021	.4118	.0012	.0003

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0024	-.0001
SDev	.0002	.0002	.0011
%RSD	153.0	8.341	728.4
#1	-.0000	.0023	-.0009
#2	.0003	.0025	.0006

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	937127	10000	--	--	--	--	--
SDev	5508.362	.0000000	--	--	--	--	--
%RSD	.5877925	.0000000	--	--	--	--	--
#1	941022	10000	--	--	--	--	--
#2	933232	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226246 Operator:
Run Time: 05/29/03 22:56:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0166	-.0002	-.0025	.0356	.0000	.0029
SDev	.0002	.0050	.0007	.0003	.0001	.0000	.0048
%RSD	27.19	30.26	466.0	13.51	.3519	145.9	167.8
#1	.0005	.0130	-.0007	-.0027	.0357	-.0000	-.0005
#2	.0008	.0201	.0004	-.0023	.0355	.0000	.0063

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	41.56	.0002	.0003	.0012	.0022	.0372	.0615
SDev	.24	.0000	.0003	.0001	.0002	.0322	.0211
%RSD	.5656	17.12	75.03	5.205	7.328	86.48	34.33
#1	41.40	.0003	.0002	.0013	.0021	.0145	.0466
#2	41.73	.0002	.0005	.0012	.0023	.0599	.0764

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.0001	.0128	.0006	-.0012	.5862	.0159
SDev	.0000	.0001	.0079	.0000	.0008	.2383	.0014
%RSD	1.475	48.37	61.33	5.466	64.32	40.64	8.969
#1	.0016	.0001	.0073	.0006	-.0007	.4178	.0149
#2	.0016	.0002	.0184	.0007	-.0018	.7547	.0169

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	-.0033	.0066	-.0043	.0094	-.0055	.0050
SDev	.0005	.0046	.0048	.0017	.0038	.0060	.0004
%RSD	147.3	139.0	73.30	38.87	40.33	110.4	7.902
#1	.0000	-.0066	.0032	-.0031	.0067	-.0098	.0053
#2	-.0007	-.0001	.0100	-.0055	.0120	-.0012	.0047

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.52	.0061	-.0009	3.274	-.0007	.0015	-.0002
SDev	.61	.0034	.0003	.010	.0005	.0009	.0009
%RSD	.6538	55.21	36.69	.3093	72.48	61.98	455.0
#1	93.95	.0037	-.0006	3.267	-.0010	.0008	.0005
#2	93.08	.0085	-.0011	3.281	-.0003	.0021	-.0009

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0268	.0025	.0002	-.0001	.1162	.0011	.0012
SDev	.0000	.0000	.0001	.0011	.0076	.0004	.0001
%RSD	.0270	.1887	27.82	1523.	6.500	35.24	5.773
#1	.0268	.0025	.0002	-.0008	.1109	.0014	.0012
#2	.0268	.0025	.0001	.0007	.1215	.0008	.0013

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0008	.0004
SDev	.0001	.0001	.0003
%RSD	103.9	13.03	89.22
#1	.0001	.0008	.0006
#2	.0000	.0009	.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	941514	10000	--	--	--	--	--
SDev	6216.883	.0000000	--	--	--	--	--
%RSD	.6603070	.0000000	--	--	--	--	--
#1	945910	10000	--	--	--	--	--
#2	937118	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226247 Operator:
Run Time: 05/29/03 23:01:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0122	.0013	-.0035	.0438	-.0000	-.0002
SDev	.0031	.0175	.0004	.0002	.0002	.0000	.0079
%RSD	1003.	143.7	32.47	4.321	.4180	613.1	3695.
#1	-.0019	-.0002	.0010	-.0036	.0439	-.0000	-.0058
#2	.0025	.0245	.0016	-.0034	.0437	.0000	.0054

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	42.34	.0003	.0007	.0005	.0085	.0249	.0393
SDev	.28	.0005	.0019	.0006	.0000	.0627	.0680
%RSD	.6725	183.0	274.1	113.0	.0578	251.7	173.1
#1	42.14	-.0001	-.0007	.0009	.0085	-.0194	-.0088
#2	42.55	.0006	.0020	.0001	.0085	.0693	.0873

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0001	.0130	.0007	-.0017	.3250	.0237
SDev	.0029	.0002	.0238	.0000	.0001	.5327	.0062
%RSD	294.0	367.6	182.5	2.551	3.232	163.9	26.09
#1	-.0010	-.0001	-.0038	.0008	-.0017	-.0517	.0193
#2	.0030	.0002	.0299	.0007	-.0016	.7016	.0281

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0023	.0037	-.0008	.0037	.0054	-.0003
SDev	.0001	.0097	.0016	.0018	.0110	.0056	.0017
%RSD	9.372	417.7	44.46	235.3	296.4	105.5	635.4
#1	.0007	-.0092	.0025	.0005	-.0041	.0094	-.0014
#2	.0006	.0045	.0049	-.0021	.0114	.0014	.0009

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.02	-.0007	-.0004	3.343	.0007	-.0005	.0024
SDev	2.38	.0009	.0016	.013	.0007	.0008	.0022
%RSD	2.528	120.9	413.6	.3938	93.91	162.6	93.16
#1	95.70	-.0013	.0008	3.334	.0012	.0001	.0008
#2	92.34	-.0001	-.0016	3.353	.0002	-.0011	.0039

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0274	.0014	.0000	-.0028	.1384	.0000	.0015
SDev	.0001	.0031	.0001	.0023	.1060	.0003	.0040
%RSD	.1704	226.4	281.4	80.32	76.58	591.9	264.5
#1	.0274	.0036	.0001	-.0044	.0635	.0003	-.0013
#2	.0275	-.0008	-.0000	-.0012	.2134	-.0002	.0043

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0008	-.0000
SDev	.0000	.0008	.0004
%RSD	1017.	91.72	3410.
#1	.0000	.0003	-.0003
#2	-.0000	.0014	.0003

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	946536	10000	--	--	--	--	--
SDev	23939.81	.0000000	--	--	--	--	--
%RSD	2.529202	.0000000	--	--	--	--	--
#1	963464	10000	--	--	--	--	--
#2	929608	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCV5 Operator:
Run Time: 05/29/03 23:09:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9979	9.946	4.993	4.827	9.955	.9641	5.093
SDev	.0007	.022	.011	.015	.001	.0006	.007
%RSD	.0693	.2187	.2186	.3204	.0130	.0587	.1304
#1	.9984	9.961	5.001	4.816	9.956	.9637	5.098
#2	.9974	9.931	4.985	4.837	9.954	.9645	5.088
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.100	11.00	5.500	5.500	11.00	1.100	5.500
Low	.9000	9.000	4.500	4.500	9.000	.9000	4.500

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.73	1.033	5.043	1.903	1.995	10.24	18.65
SDev	.01	.002	.003	.002	.003	.00	.00
%RSD	.0334	.1549	.0684	.0894	.1491	.0129	.0105
#1	19.73	1.032	5.041	1.904	1.997	10.23	18.65
#2	19.74	1.034	5.046	1.901	1.993	10.24	18.65
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	22.00	1.100	5.500	2.200	2.200	11.00	22.00
Low	18.00	.9000	4.500	1.800	1.800	9.000	18.00

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.955	4.887	19.91	1.018	5.126	28.04	H41.62
SDev	.003	.007	.03	.000	.019	.03	.14
%RSD	.0618	.1367	.1307	.0473	.3779	.0922	.3270
#1	4.952	4.891	19.93	1.018	5.112	28.06	H41.72
#2	4.957	4.882	19.89	1.019	5.140	28.02	H41.53
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	5.500	22.00	1.100	5.500	33.00	33.00
Low	4.500	4.500	18.00	.9000	4.500	27.00	27.00

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.767	4.799	5.171	5.091	1.003	1.018	.9926
SDev	.021	.005	.055	.023	.001	.004	.0001
%RSD	.4362	.1000	1.058	.4431	.0498	.3884	.0151
#1	4.752	4.796	5.132	5.076	1.003	1.021	.9927
#2	4.782	4.803	5.210	5.107	1.003	1.015	.9925
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	5.500	5.500			1.100	1.100	1.100
Low	4.500	4.500			.9000	.9000	.9000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.67	5.339	5.238	5.074	5.118	5.272	4.939
SDev	.74	.078	.043	.005	.033	.055	.001
%RSD	.7574	1.466	.8158	.0987	.6501	1.035	.0165
#1	98.19	5.284	5.208	5.078	5.095	5.233	4.938
#2	97.15	5.394	5.268	5.071	5.142	5.310	4.939
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				5.500	5.500	5.500	5.500
Low				4.500	4.500	4.500	4.500

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.077	.9797	4.843	5.241	1.009	4.999	H1.316
SDev	.002	.0000	.002	.001	.026	.002	.002
%RSD	.0322	.0009	.0481	.0105	2.537	.0415	.1407
#1	5.078	.9797	4.845	5.240	.9912	5.001	H1.318
#2	5.076	.9797	4.842	5.241	1.027	4.998	H1.315
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	1.100	5.500	5.500	1.100	5.500	1.100
Low	4.500	.9000	4.500	4.500	.9000	4.500	.9000

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.887	1.021	4.840
SDev	.004	.002	.003
%RSD	.0856	.2154	.0606
#1	4.890	1.020	4.838
#2	4.884	1.023	4.842
Errors	LC Pass	LC Pass	LC Pass
High	5.500	1.100	5.500
Low	4.500	.9000	4.500

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	983338	10000	--	--	--	--	--
SDev	7461.391	.0000000	--	--	--	--	--
%RSD	.7587819	.0000000	--	--	--	--	--
#1	988614	10000	--	--	--	--	--
#2	978062	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCB5 Operator:
Run Time: 05/29/03 23:16:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0013	-.0000	.0053	.0004	.0000	.0007
SDev	.0012	.0083	.0015	.0019	.0002	.0000	.0026
%RSD	1167.	634.2	45570.	36.24	60.91	57.52	355.5
#1	-.0007	-.0046	-.0011	.0067	.0005	.0000	-.0011
#2	.0010	.0072	.0011	.0039	.0002	.0000	.0025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0018	.0003	.0013	.0028	.0022	.0138	.0209
SDev	.0041	.0001	.0010	.0022	.0008	.0303	.0352
%RSD	233.9	47.70	76.86	77.99	35.87	219.2	168.6
#1	-.0047	.0002	.0006	.0043	.0028	-.0076	-.0040
#2	.0012	.0003	.0020	.0012	.0017	H.0353	.0458
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0001	.0044	.0003	.0029	H.3708	.0105
SDev	.0019	.0001	.0117	.0002	.0007	.2464	.0051
%RSD	447.6	33.14	264.7	47.41	24.76	66.44	48.80
#1	-.0009	.0001	-.0039	.0004	.0034	H.1966	.0069
#2	.0018	.0002	.0127	.0002	.0024	H.5451	.0142
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	-.0078	.0004	.0005	.0041	.0032	.0085
SDev	.0021	.0016	.0055	.0035	.0053	.0046	.0030
%RSD	194.8	20.31	1467.	660.7	131.9	141.3	35.17
#1	.0026	-.0067	-.0035	.0030	.0003	.0000	H.0106
#2	-.0004	-.0089	.0042	-.0020	H.0078	.0065	.0064
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.46	-.0015	-.0013	.0029	.0005	-.0014	-.0007
SDev	.84	.0004	.0010	.0047	.0005	.0005	.0002
%RSD	.8424	29.15	76.75	162.2	106.9	37.93	29.83
#1	100.1	-.0018	-.0006	-.0004	.0009	-.0010	-.0008
#2	98.87	-.0012	-.0020	.0062	.0001	-.0017	-.0005
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	Tl1908	U 4090	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0091	.0007	-.0013	.0184	.0025	.0021
SDev	.0001	.0056	.0003	.0024	.0484	.0010	.0003
%RSD	176.7	61.86	48.54	181.9	263.4	39.79	14.67
#1	-.0000	H.0130	.0009	.0004	-.0158	.0032	.0019
#2	.0001	.0051	.0004	-.0030	.0526	.0018	.0023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0004	-.0002	.0022
SDev	.0002	.0004	.0006
%RSD	42.56	254.1	26.87
#1	.0006	-.0004	.0027
#2	.0003	.0001	.0018
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1001310	10000	--	--	--	--	--
SDev	8448.512	.0000000	--	--	--	--	--
%RSD	.8437459	.0000000	--	--	--	--	--
#1	1007284	10000	--	--	--	--	--
#2	995336	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226248 Operator:
Run Time: 05/29/03 23:21:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0128	.0012	.0007	.0462	.0000	.0034
SDev	.0023	.0133	.0007	.0007	.0004	.0000	.0067
%RSD	277.5	104.0	59.08	90.75	.9164	2061.	196.0
#1	-.0008	.0034	.0017	.0012	.0465	.0000	-.0013
#2	.0025	.0221	.0007	.0003	.0459	-.0000	.0081

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	43.26	.0004	.0008	.0004	.0012	.0261	.0463
SDev	.31	.0004	.0015	.0006	.0006	.0381	.0470
%RSD	.7054	104.5	196.9	160.0	44.62	145.7	101.6
#1	43.04	.0001	-.0003	.0008	.0016	-.0008	.0130
#2	43.47	.0007	.0018	-.0000	.0008	.0530	.0795

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	.0001	.0123	.0008	-.0003	.4171	.0259
SDev	.0027	.0002	.0214	.0000	.0005	.5450	.0007
%RSD	228.0	130.7	173.8	2.393	180.6	130.7	2.534
#1	-.0007	.0000	-.0028	.0009	.0001	.0317	.0254
#2	.0031	.0003	.0275	.0008	-.0006	.8025	.0264

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	-.0002	.0077	-.0032	.0065	.0010	.0030
SDev	.0009	.0108	.0114	.0073	.0107	.0039	.0035
%RSD	105.0	6412.	147.9	224.8	163.2	388.2	118.0
#1	.0002	-.0078	-.0004	.0019	-.0010	-.0017	.0055
#2	.0016	.0074	.0158	-.0084	.0141	.0037	.0005

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.59	.0038	-.0029	3.433	.0004	-.0006	.0011
SDev	3.19	.0078	.0057	.005	.0010	.0012	.0028
%RSD	3.233	207.7	198.0	.1493	250.8	181.9	250.1
#1	100.8	-.0018	.0011	3.429	.0012	.0002	-.0009
#2	96.33	.0093	-.0069	3.437	-.0003	-.0015	.0031

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0283	-.0008	-.0001	-.0009	.2083	.0004	.0035
SDev	.0000	.0058	.0003	.0030	.0865	.0004	.0036
%RSD	.1041	737.1	409.6	332.9	41.55	98.84	103.5
#1	.0283	.0033	.0002	-.0030	.1471	.0007	.0009
#2	.0283	-.0049	-.0003	.0012	.2695	.0001	.0061

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0005	-.0002
SDev	.0001	.0004	.0001
%RSD	212.4	75.94	30.33
#1	.0000	.0002	-.0002
#2	-.0001	.0008	-.0003

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	992552	10000	--	--	--	--	--
SDev	32148.61	.0000000	--	--	--	--	--
%RSD	3.238987	.0000000	--	--	--	--	--
#1	1015284	10000	--	--	--	--	--
#2	969819	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226249 Operator:
Run Time: 05/29/03 23:25:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0121	.0005	-.0013	.0468	-.0000	.0020
SDev	.0004	.0013	.0001	.0000	.0001	.0000	.0013
%RSD	140.7	10.99	17.89	.0186	.2802	21.34	65.93
#1	.0005	.0111	.0006	-.0013	.0469	-.0000	.0011
#2	.0000	.0130	.0004	-.0013	.0467	-.0000	.0030

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	44.43	.0002	.0022	.0002	.0010	.0149	.0382
SDev	.27	.0001	.0007	.0018	.0005	.0110	.0070
%RSD	.6054	44.81	32.78	1188.	45.79	73.89	18.41
#1	44.24	.0001	.0027	-.0011	.0007	.0071	.0332
#2	44.62	.0002	.0017	.0014	.0013	.0227	.0431

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0001	.0097	.0009	-.0015	.2813	.0189
SDev	.0001	.0000	.0028	.0002	.0002	.0007	.0057
%RSD	15.44	18.38	28.99	22.65	14.32	.2360	30.51
#1	.0009	.0001	.0117	.0008	-.0017	.2818	.0229
#2	.0007	.0001	.0077	.0011	-.0014	.2809	.0148

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	-.0064	.0042	-.0024	.0034	.0014	-.0018
SDev	.0015	.0052	.0045	.0006	.0025	.0001	.0020
%RSD	346.5	80.77	107.3	23.65	73.44	9.896	110.4
#1	-.0006	-.0028	.0074	-.0028	.0016	.0013	-.0004
#2	.0015	-.0101	.0010	-.0020	.0051	.0015	-.0032

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.96	.0044	-.0038	3.506	-.0002	-.0011	.0009
SDev	2.27	.0028	.0002	.002	.0011	.0008	.0009
%RSD	2.368	63.81	5.820	.0690	640.0	72.58	97.61
#1	97.56	.0063	-.0040	3.505	.0006	-.0005	.0015
#2	94.35	.0024	-.0036	3.508	-.0010	-.0016	.0003

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0289	-.0014	-.0003	-.0004	.1849	-.0007	.0035
SDev	.0001	.0015	.0001	.0005	.0039	.0003	.0006
%RSD	.1677	112.6	29.43	131.2	2.129	36.12	15.42
#1	.0289	-.0024	-.0003	-.0000	.1877	-.0009	.0039
#2	.0289	-.0003	-.0002	-.0007	.1821	-.0005	.0032

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0005	-.0007
SDev	.0001	.0002	.0004
%RSD	85.53	45.17	55.17
#1	-.0002	.0003	-.0009
#2	-.0000	.0006	-.0004

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	966078	10000	--	--	--	--	--
SDev	22868.54	.0000000	--	--	--	--	--
%RSD	2.367151	.0000000	--	--	--	--	--
#1	982249	10000	--	--	--	--	--
#2	949908	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226250 Operator:
Run Time: 05/29/03 23:30:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0138	-.0009	-.0018	.0478	-.0000	.0017
SDev	.0012	.0015	.0007	.0010	.0001	.0000	.0017
%RSD	135.0	10.75	82.90	59.22	.1481	13.15	97.94
#1	.0018	.0149	-.0004	-.0010	.0477	-.0000	.0029
#2	.0000	.0128	-.0014	-.0025	.0478	-.0000	.0005

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	45.51	.0003	.0028	.0004	.0010	.0275	.0519
SDev	.21	.0001	.0008	.0003	.0001	.0220	.0213
%RSD	.4716	26.83	26.72	88.88	6.708	79.90	40.95
#1	45.67	.0004	.0034	.0006	.0010	.0430	.0669
#2	45.36	.0003	.0023	.0001	.0010	.0120	.0369

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0020	.0001	.0130	.0011	-.0017	.3082	.0153
SDev	.0009	.0001	.0076	.0000	.0004	.2219	.0030
%RSD	47.79	68.09	58.33	.9697	22.57	72.01	19.79
#1	.0027	.0002	.0184	.0011	-.0014	.4651	.0174
#2	.0013	.0001	.0077	.0011	-.0020	.1513	.0131

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0021	.0066	-.0048	.0069	.0047	-.0030
SDev	.0005	.0122	.0022	.0018	.0041	.0009	.0021
%RSD	106.1	588.9	32.59	38.43	59.70	18.14	68.75
#1	-.0001	-.0066	.0051	-.0061	.0098	.0053	-.0016
#2	-.0009	.0107	.0081	-.0035	.0040	.0041	-.0045

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.26	.0054	-.0058	3.581	-.0010	-.0021	.0012
SDev	.35	.0044	.0022	.002	.0020	.0000	.0010
%RSD	.3744	81.17	38.60	.0537	197.2	1.760	89.58
#1	93.01	.0085	-.0074	3.582	-.0024	-.0021	.0004
#2	93.50	.0023	-.0042	3.580	.0004	-.0020	.0019

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0298	-.0011	-.0001	-.0018	.2069	.0001	.0043
SDev	.0000	.0001	.0001	.0015	.0445	.0004	.0026
%RSD	.0772	5.198	70.62	87.57	21.50	351.4	60.08
#1	.0299	-.0011	-.0001	-.0028	.2383	-.0002	.0061
#2	.0298	-.0012	-.0002	-.0007	.1754	.0004	.0024

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0012	-.0001
SDev	.0000	.0006	.0004
%RSD	66.98	50.95	252.6
#1	-.0000	.0016	.0001
#2	-.0001	.0008	-.0004

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	938882	10000	--	--	--	--	--
SDev	3472.601	.0000000	--	--	--	--	--
%RSD	.3698654	.0000000	--	--	--	--	--
#1	936427	10000	--	--	--	--	--
#2	941338	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226251 Operator:
Run Time: 05/29/03 23:35:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0100	.0007	-.0028	.0479	-.0000	.0011
SDev	.0006	.0014	.0001	.0004	.0001	.0000	.0002
%RSD	1944.	13.84	19.93	15.59	.1134	9559.	18.59
#1	.0005	.0091	.0006	-.0025	.0478	.0000	.0013
#2	-.0004	.0110	.0008	-.0031	.0479	-.0000	.0010

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	46.29	.0003	-.0002	-.0005	.0011	.0253	.0531
SDev	.15	.0000	.0004	.0009	.0007	.0175	.0180
%RSD	.3316	.6846	187.4	175.2	64.44	69.14	33.94
#1	46.40	.0002	-.0004	.0001	.0016	.0376	.0659
#2	46.18	.0003	.0001	-.0011	.0006	.0129	.0404

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0001	.0079	.0011	-.0015	.4381	.0158
SDev	.0004	.0001	.0040	.0000	.0000	.2252	.0044
%RSD	52.78	98.62	51.54	.8339	2.321	51.40	28.07
#1	.0011	.0001	.0107	.0011	-.0015	.5974	.0189
#2	.0005	.0000	.0050	.0011	-.0015	.2789	.0127

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	-.0051	.0054	-.0013	.0055	.0013	.0010
SDev	.0008	.0014	.0011	.0005	.0038	.0030	.0014
%RSD	120.6	27.45	19.87	40.24	68.64	227.8	141.9
#1	-.0012	-.0041	.0061	-.0016	.0082	.0035	.0020
#2	-.0001	-.0061	.0046	-.0009	.0029	-.0008	-.0000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.25	.0056	-.0014	3.648	.0010	.0010	.0016
SDev	.18	.0001	.0005	.005	.0000	.0003	.0002
%RSD	.1880	1.124	34.82	.1343	1.559	31.40	13.86
#1	93.13	.0056	-.0017	3.651	.0010	.0007	.0017
#2	93.37	.0055	-.0010	3.645	.0009	.0012	.0014

Elem	Sr4215	Th2837	Ti3349	Tl1908	U 4090	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0299	-.0016	-.0003	.0014	.2834	.0001	-.0003
SDev	.0000	.0016	.0002	.0023	.0248	.0007	.0020
%RSD	.1496	101.0	74.19	168.4	8.758	1241.	635.0
#1	.0299	-.0005	-.0001	-.0003	.3009	.0005	.0011
#2	.0299	-.0027	-.0004	.0030	.2658	-.0004	-.0017

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0004	-.0008
SDev	.0002	.0002	.0007
%RSD	213.3	57.97	95.88
#1	.0000	.0005	-.0003
#2	-.0002	.0002	-.0013

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	938794	10000	--	--	--	--	--
SDev	1706.249	.0000000	--	--	--	--	--
%RSD	.1817491	.0000000	--	--	--	--	--
#1	937587	10000	--	--	--	--	--
#2	940000	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226252 Operator:
Run Time: 05/29/03 23:39:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0100	.0001	-.0018	.0491	-.0000	-.0009
SDev	.0023	.0121	.0024	.0010	.0002	.0000	.0051
%RSD	42480.	121.8	2577.	57.34	.3257	1465.	597.2
#1	-.0016	.0014	-.0016	-.0026	.0490	-.0000	-.0045
#2	.0016	.0185	.0018	-.0011	.0493	.0000	.0028

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	46.85	.0001	.0002	.0013	.0021	.0085	.0309
SDev	.14	.0004	.0014	.0012	.0010	.0422	.0445
%RSD	.3075	243.3	648.7	91.65	49.05	495.2	144.0
#1	46.75	-.0001	-.0008	.0005	.0014	-.0213	-.0006
#2	46.96	.0004	.0012	.0022	.0028	.0383	.0624

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0000	.0039	.0014	-.0014	.1541	.0192
SDev	.0019	.0001	.0187	.0002	.0004	.4704	.0078
%RSD	586.9	265.7	485.2	13.34	29.16	305.3	40.76
#1	-.0010	-.0000	-.0094	.0013	-.0017	-.1786	.0136
#2	.0016	.0001	.0171	.0015	-.0011	.4867	.0247

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0079	.0006	.0003	.0041	.0092	.0051
SDev	.0007	.0015	.0016	.0011	.0098	.0016	.0040
%RSD	99.21	19.60	280.5	332.3	241.6	16.98	79.91
#1	.0002	.0068	-.0006	.0012	-.0029	.0081	.0022
#2	.0012	.0090	.0017	-.0005	.0110	.0103	.0079

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.84	.0013	-.0002	3.689	.0004	.0003	-.0000
SDev	.81	.0033	.0019	.017	.0002	.0002	.0030
%RSD	.8519	257.2	915.2	.4657	50.24	53.59	10020.
#1	95.41	-.0010	.0011	3.676	.0006	.0004	-.0021
#2	94.27	.0036	-.0015	3.701	.0003	.0002	.0021

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0305	.0030	.0002	-.0020	.1978	.0011	-.0013
SDev	.0001	.0044	.0003	.0006	.0716	.0017	.0020
%RSD	.1991	144.3	129.0	31.40	36.19	156.8	149.2
#1	.0305	-.0001	.0000	-.0024	.1472	-.0001	.0001
#2	.0306	.0061	.0004	-.0015	.2484	.0023	-.0027

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0003	.0007	.0006
SDev	.0003	.0006	.0016
%RSD	106.7	95.59	274.4
#1	.0001	.0002	-.0005
#2	.0005	.0011	.0017

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	954812	10000	--	--	--	--	--
SDev	8111.222	.0000000	--	--	--	--	--
%RSD	.8495094	.0000000	--	--	--	--	--
#1	960548	10000	--	--	--	--	--
#2	949077	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: 226253 Operator:
Run Time: 05/29/03 23:44:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0099	.0009	-.0032	.0499	-.0000	.0024
SDev	.0004	.0057	.0011	.0007	.0001	.0000	.0019
%RSD	143.5	57.92	112.6	22.82	.2144	6.782	80.59
#1	-.0000	.0058	.0002	-.0037	.0500	-.0000	.0038
#2	.0006	.0139	.0017	-.0027	.0498	-.0000	.0010

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.54	.0001	.0008	-.0002	.0011	-.0015	.0278
SDev	.10	.0003	.0004	.0001	.0002	.0199	.0117
%RSD	.2002	209.7	50.45	46.01	15.45	1346.	41.94
#1	48.47	-.0001	.0005	-.0003	.0009	-.0156	.0196
#2	48.61	.0003	.0011	-.0002	.0012	.0126	.0361

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0000	.0073	.0014	-.0013	.2733	.0132
SDev	.0009	.0000	.0066	.0000	.0013	.2324	.0011
%RSD	81.56	2019.	90.86	2.005	99.15	85.02	8.233
#1	.0005	-.0000	.0026	.0014	-.0004	.1090	.0125
#2	.0017	.0000	.0120	.0014	-.0022	.4376	.0140

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	-.0053	.0087	-.0035	.0035	.0026	-.0016
SDev	.0009	.0117	.0015	.0016	.0046	.0008	.0040
%RSD	208.0	219.2	16.82	47.15	132.3	31.78	247.6
#1	.0010	.0029	.0077	-.0046	.0002	.0032	.0012
#2	-.0002	-.0136	.0098	-.0023	.0068	.0020	-.0045

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.97	.0074	-.0024	3.836	.0006	.0009	.0003
SDev	.85	.0014	.0022	.001	.0016	.0020	.0024
%RSD	.8994	18.66	95.11	.0310	262.4	216.5	838.7
#1	94.57	.0084	-.0008	3.835	-.0005	.0023	-.0014
#2	93.37	.0064	-.0040	3.836	.0017	-.0005	.0019

Elem	Sr4215	Th2837	Ti3349	Tl1908	U 4090	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0315	-.0021	-.0002	-.0012	.4247	-.0002	.0017
SDev	.0000	.0003	.0000	.0002	.0191	.0006	.0023
%RSD	.0412	16.35	2.590	14.73	4.502	290.5	130.0
#1	.0315	-.0024	-.0002	-.0013	.4111	-.0006	.0001
#2	.0315	-.0019	-.0002	-.0011	.4382	.0002	.0033

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0007	-.0009
SDev	.0000	.0003	.0005
%RSD	17.21	37.68	57.39
#1	-.0001	.0005	-.0013
#2	-.0001	.0009	-.0005

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	945998	10000	--	--	--	--	--
SDev	8483.160	.0000000	--	--	--	--	--
%RSD	.8967414	.0000000	--	--	--	--	--
#1	951997	10000	--	--	--	--	--
#2	940000	10000	--	--	--	--	--

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Method: DAILY2 Sample Name: CCV6 Operator:
Run Time: 05/29/03 23:52:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9972	9.905	5.002	4.822	9.916	.9694	5.065
SDev	.0001	.028	.014	.025	.019	.0035	.000
%RSD	.0059	.2826	.2866	.5286	.1962	.3589	.0046
#1	.9972	9.924	4.991	4.804	9.930	.9669	5.065
#2	.9972	9.885	5.012	4.840	9.902	.9719	5.065
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.100	11.00	5.500	5.500	11.00	1.100	5.500
Low	.9000	9.000	4.500	4.500	9.000	.9000	4.500

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.84	1.036	5.057	1.913	1.985	10.30	18.48
SDev	.06	.003	.020	.005	.003	.06	.04
%RSD	.2875	.2978	.3860	.2620	.1283	.6184	.1905
#1	19.79	1.034	5.044	1.909	1.987	10.26	18.50
#2	19.88	1.038	5.071	1.917	1.983	10.35	18.45
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	22.00	1.100	5.500	2.200	2.200	11.00	22.00
Low	18.00	.9000	4.500	1.800	1.800	9.000	18.00

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.940	4.854	19.96	1.021	5.122	28.37	H41.37
SDev	.002	.020	.04	.002	.021	.01	.19
%RSD	.0473	.4129	.2246	.2179	.4086	.0220	.4514
#1	4.941	4.869	19.92	1.019	5.107	28.36	H41.50
#2	4.938	4.840	19.99	1.022	5.137	28.37	H41.24
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	5.500	22.00	1.100	5.500	33.00	33.00
Low	4.500	4.500	18.00	.9000	4.500	27.00	27.00

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.788	4.970	5.108	5.094	1.002	1.023	.9892
SDev	.026	.114	.014	.017	.001	.007	.0041
%RSD	.5504	2.288	.2682	.3262	.1046	.6827	.4143
#1	4.769	5.051	5.098	5.082	1.001	1.028	.9921
#2	4.807	4.890	5.118	5.105	1.002	1.018	.9863
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	5.500	5.500			1.100	1.100	1.100
Low	4.500	4.500			.9000	.9000	.9000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.81	5.188	5.197	5.073	5.098	5.194	4.956
SDev	.35	.007	.010	.003	.016	.004	.016
%RSD	.3678	.1354	.1840	.0612	.3069	.0777	.3256
#1	95.57	5.193	5.190	5.071	5.087	5.191	4.945
#2	96.06	5.183	5.204	5.076	5.109	5.197	4.967
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				5.500	5.500	5.500	5.500
Low				4.500	4.500	4.500	4.500

Elem	Sr4215	Th2837	Ti3349	T11908	U 4090	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.058	.9769	4.841	5.252	1.004	5.003	H1.317
SDev	.008	.0009	.007	.034	.006	.005	.006
%RSD	.1488	.0922	.1380	.6438	.6423	.0954	.4738
#1	5.064	.9776	4.836	5.228	1.009	5.000	H1.312
#2	5.053	.9763	4.846	5.276	.9998	5.007	H1.321
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.500	1.100	5.500	5.500	1.100	5.500	1.100
Low	4.500	.9000	4.500	4.500	.9000	4.500	.9000

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.880	1.032	4.826
SDev	.004	.006	.003
%RSD	.0817	.6105	.0564
#1	4.883	1.028	4.828
#2	4.878	1.037	4.824
Errors	LC Pass	LC Pass	LC Pass
High	5.500	1.100	5.500
Low	4.500	.9000	4.500

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	964668	10000	--	--	--	--	--
SDev	3543.312	.0000000	--	--	--	--	--
%RSD	.3673091	.0000000	--	--	--	--	--
#1	962162	10000	--	--	--	--	--
#2	967173	10000	--	--	--	--	--

Analysis Report 05/31/03 00:04:00 AM page 1

Method: DAILY2 Sample Name: CCB6 Operator:
Run Time: 05/30/03 23:59:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0083	.0009	.0032	.0001	-.0000	.0017
SDev	.0020	.0092	.0018	.0002	.0002	.0000	.0058
%RSD	264.2	111.2	209.2	5.315	167.9	107.6	339.8
#1	-.0007	.0018	-.0004	.0033	-.0000	-.0000	-.0024
#2	.0021	.0147	.0021	.0031	.0002	-.0000	H.0059
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.0050	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0022	.0002	.0017	-.0000	.0006	.0246	.0187
SDev	.0031	.0003	.0019	.0008	.0007	.0292	.0285
%RSD	143.4	209.9	115.5	1625.	104.3	118.7	152.3
#1	-.0044	-.0001	.0003	-.0006	.0002	.0039	-.0014
#2	.0000	.0004	.0030	.0005	.0011	H.0452	.0389
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La3988	Li6707	Mg2790	Mn2576	Mo2020	Na3302	Na5889
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0001	.0101	.0001	.0016	H.2707	.0108
SDev	.0025	.0001	.0166	.0000	.0014	.2626	.0016
%RSD	197.8	94.70	164.5	42.97	89.27	96.99	15.19
#1	-.0005	.0000	-.0016	.0001	.0026	H.0850	.0097
#2	.0031	.0002	.0218	.0001	.0006	H.4563	.0120
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0000	.0026	-.0001	.0038	.0008	.0006
SDev	.0009	.0039	.0018	.0018	.0054	.0007	.0005
%RSD	618.0	8699.	70.33	1868.	141.4	78.56	94.50
#1	-.0005	.0027	.0013	.0012	.0000	.0013	.0010
#2	.0008	-.0028	.0038	-.0014	H.0076	.0004	.0002
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.96	-.0012	-.0020	.0054	.0008	-.0017	.0004
SDev	2.04	.0035	.0002	.0095	.0006	.0013	.0019
%RSD	2.045	289.4	10.72	175.3	75.55	76.60	467.8
#1	101.4	-.0037	-.0021	-.0013	.0012	-.0026	-.0009
#2	98.51	.0013	-.0018	H.0121	.0004	-.0008	.0017
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3349	Tl1908	U_4090	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0015	.0001	.0005	.0250	.0003	.0021
SDev	.0001	.0014	.0002	.0004	.0805	.0008	.0043
%RSD	166.1	91.06	141.5	81.92	322.1	323.7	202.7
#1	-.0000	.0025	-.0000	.0008	-.0319	-.0003	-.0009
#2	.0002	.0005	.0002	.0002	.0819	.0008	.0051
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	-.0003	.0004
SDev	.0002	.0005	.0008
%RSD	1325.	163.6	206.4
#1	-.0001	-.0006	-.0002
#2	.0002	.0000	.0009
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	1006369	10000	--	--	--	--	--
SDev	20564.08	.0000000	--	--	--	--	--
%RSD	2.043394	.0000000	--	--	--	--	--
#1	1020910	10000	--	--	--	--	--
#2	991828	10000	--	--	--	--	--

010413

ICP ANALYSIS

Cu, Sn

PROJ. NO.	PROJECT	TO#	DATE	MATRIX	LOGBK PG
06002.01.071	DIV 20	030520-13	6-9-03	WATER	54 056

INSTRUMENT: Trace 1 FILENAME: A052013

INSTRUMENT DL:

Standardization Rpt. 06/09/03 09:57:58 AM page 1

Method: DAILY1 Standard: blk
Run Time: 06/09/03 09:52:59

Elem	Ap3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Avge	-.00001	.0007	-.0000	.0035	-.0000	-.0001	-.0000
SDev	.00000	.0001	.0000	.0000	.0000	.0000	.0000
%RSD	71.479	6.707	192.2	.2976	2.261	.2798	5.122
#1	-.00001	.0008	.0000	.0035	-.0000	-.0001	-.0000
#2	-.00000	.0007	-.0000	.0035	-.0000	-.0001	-.0000

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Avge	.0000	.0000	-.0000	-.0000	.0004	-.0000	.0026
SDev	.0000	.0000	.0000	.0000	.0000	.0000	.0003
%RSD	8.096	115.4	213.4	36.32	1.436	19.94	11.73
#1	.0000	.0000	.0000	-.0000	.0004	-.0000	.0024
#2	.0000	.0000	-.0000	-.0000	.0005	-.0000	.0028

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Avge	.0005	.0005	.0000	.0000	-.0000	-.0157	-.0002
SDev	.0000	.0000	.0000	.0000	.0000	.0002	.0000
%RSD	.3584	2.742	27.30	48.05	172.3	1.225	21.89
#1	.0005	.0005	.0000	.0000	-.0000	-.0159	-.0002
#2	.0005	.0005	.0000	.0000	.0000	-.0156	-.0002

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Avge	.0000	.0001	.0002	-.0000	-.0000	.0000	.0000
SDev	.0000	.0000	.0001	.0001	.0000	.0000	.0000
%RSD	141.4	.6358	30.13	233.0	14.70	157.4	141.4
#1	.0000	.0001	.0002	.0000	-.0000	-.0000	.0000
#2	.0000	.0001	.0002	-.0001	-.0000	.0000	.0000

Elem	Sc3613	1960/1	1960/2	Si2881	Sn1899	Sr4215	Th2837
Avge	63.90	-.0001	.0001	.0018	-.0000	.0000	.0000
SDev	.66	.0001	.0000	.0000	.0000	.0000	.0000
%RSD	1.030	41.58	20.75	.3177	110.4	1.028	42.11
#1	63.44	-.0002	.0001	.0018	-.0000	.0000	.0000
#2	64.37	-.0001	.0001	.0018	-.0000	.0000	.0000

Elem	Ti3372	Tl1908	U 3859	V 2924	W 2079	Y 3710	Zn2062
Avge	-.0014	-.0000	.0044	-.0000	.0001	-.0000	.0000
SDev	.0001	.0000	.0000	.0000	.0000	.0000	.0000
%RSD	3.810	29.02	.6752	59.77	2.599	141.4	85.51
#1	-.0015	-.0000	.0044	-.0000	.0001	.0000	.0000
#2	-.0014	-.0000	.0044	-.0000	.0001	-.0000	.0000

Elem	Zr3496
Avge	.0002
SDev	.0000
%RSD	5.312
#1	.0002
#2	.0002

6-9-03

6/10/03

Sec'd 64 03 305-00

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	638963	10000	--	--	--	--	--
SDev	6569.022	.0000000	--	--	--	--	--
%RSD	1.028075	.0000000	--	--	--	--	--
#1	634318	10000	--	--	--	--	--
#2	643608	10000	--	--	--	--	--

Standardization Rpt. 06/09/03 10:02:23 AM page 1

Method: DAILY1 Standard: clp_std4
Run Time: 06/09/03 09:58:08

Elem	Ap3280	As1890	2203/1	2203/2	Sb2068	1960/1	1960/2
Avge	.05614	.1288	.4917	.5098	.1320	.2622	.4646
SDev	.00045	.0002	.0003	.0028	.0003	.0008	.0037
%RSD	.79486	.1628	.0591	.5499	.2288	.3169	.8040
#1	.05582	.1287	.4919	.5078	.1318	.2628	.4620
#2	.05646	.1290	.4915	.5117	.1322	.2616	.4672

Elem	T11908
Avge	.0347
SDev	.0002
%RSD	.5914
#1	.0346
#2	.0349

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	625836	10000	--	--	--	--	--
SDev	1675.843	.0000000	--	--	--	--	--
%RSD	.2677767	.0000000	--	--	--	--	--
#1	624651	10000	--	--	--	--	--
#2	627021	10000	--	--	--	--	--

Standardization Rpt. 06/09/03 10:06:47 AM page 1

Method: DAILY1 Standard: clp_std1
Run Time: 06/09/03 10:02:33

Elem	Al3082	Ca3179	Fe2714	K_7664	Li6707	Mg2790	Na3302
Avge	.1288	.1595	.1113	1.444	2.991	.0588	.0117
SDev	.0001	.0002	.0003	.006	.010	.0001	.0001
%RSD	.0685	.1248	.3061	.4350	.3275	.1898	.8009
#1	.1287	.1593	.1115	1.449	2.998	.0588	.0116
#2	.1289	.1596	.1110	1.440	2.984	.0587	.0117

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	620086	10000	--	--	--	--	--
SDev	2.121320	.0000000	--	--	--	--	--
%RSD	.0003421	.0000000	--	--	--	--	--
#1	620088	10000	--	--	--	--	--
#2	620085	10000	--	--	--	--	--

Standardization Rpt. 06/09/03 10:10:50 AM page 1

Method: DAILY1 Standard: clp_std5
Run Time: 06/09/03 10:06:57

Elem	B_2496	Bi2230	Mo2020	P_1782	Si2881	Sn1899	Sr4215
Avge	.4258	.0654	.1818	.0502	.1423	.2200	1.429
SDev	.0008	.0003	.0016	.0001	.0007	.0008	.006
%RSD	.1828	.5257	.8661	.1827	.4969	.3600	.4480
#1	.4264	.0657	.1807	.0502	.1428	.2206	1.433
#2	.4253	.0652	.1829	.0503	.1418	.2194	1.424

Elem	Ti3372
Avge	1.080
SDev	.002
%RSD	.1581
#1	1.081
#2	1.079

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	632521	10000	--	--	--	--	--
SDev	3476.137	.0000000	--	--	--	--	--
%RSD	.5495686	.0000000	--	--	--	--	--
#1	630063	10000	--	--	--	--	--
#2	634979	10000	--	--	--	--	--

Standardization Rpt. 06/09/03 10:14:31 AM page 1

Method: DAILY1 Standard: clp_std2
Run Time: 06/09/03 10:11:00

Elem	Ba4934	Be3130	Cr2677	Cu3247	Ni2316
Avge	.5911	.2783	.3376	.3258	.8751
SDev	.0007	.0011	.0013	.0018	.0021
%RSD	.1233	.3817	.3974	.5458	.2421
#1	.5916	.2775	.3386	.3271	.8736
#2	.5906	.2790	.3367	.3246	.8766

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	596984	10000	--	--	--	--	--
SDev	7824.137	.0000000	--	--	--	--	--
%RSD	1.310610	.0000000	--	--	--	--	--
#1	591452	10000	--	--	--	--	--
#2	602517	10000	--	--	--	--	--

Standardization Rpt. 06/09/03 10:18:56 AM page 1

Method: DAILY1 Standard: clp_std3
Run Time: 06/09/03 10:14:41

Elem	Cd2265	Co2286	Mn2576	V 2924	Zn2062
Avge	1.351	.3103	.4530	.0791	.1085
SDev	.006	.0016	.0030	.0004	.0004
%RSD	.4590	.5162	.6603	.4696	.3847
#1	1.346	.3091	.4509	.0788	.1082
#2	1.355	.3114	.4551	.0794	.1088

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	625874	10000	--	--	--	--	--
SDev	3046.216	.0000000	--	--	--	--	--
%RSD	.4867140	.0000000	--	--	--	--	--
#1	628028	10000	--	--	--	--	--
#2	623720	10000	--	--	--	--	--

Stand ardization Rpt. 06/09/03 10:24:04 AM

Method: DAILY1 Standard: clp_std6
Run Time: 06/09/03 10:19:06

Elem	La4086	Na5889	Pd3404	S 1820	Th2837	U 3859	W 2079
Avge	.3564	.0966	.1523	.0533	.0595	.0298	.1127
SDev	.0008	.0001	.0001	.0005	.0002	.0000	.0005
%RSD	.2320	.0616	.0400	.9230	.3157	.0120	.4669
#1	.3570	.0966	.1523	.0536	.0596	.0298	.1131
#2	.3558	.0967	.1522	.0529	.0594	.0298	.1124

Elem	Y 3710	Zr3496
Avge	1.016	1.175
SDev	.001	.003
%RSD	.0580	.2321
#1	1.017	1.177
#2	1.016	1.173

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	627919	10000	--	--	--	--	--
SDev	2730.846	.0000000	--	--	--	--	--
%RSD	.4349042	.0000000	--	--	--	--	--
#1	625988	10000	--	--	--	--	--
#2	629850	10000	--	--	--	--	--

Standardization Report 06/09/03 10:24:05 AM

Method: DAILY1 Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag3280	328.068	clp_std4	blk	35.6210	.000224	06/09/03 10:19:06
Al3082	308.215	clp_std1	blk	390.466	-.289147	06/09/03 10:19:06
As1890	189.042	clp_std4	blk	77.6139	.001022	06/09/03 10:19:06
B 2496	249.678	clp_std5	blk	23.6785	-.082510	06/09/03 10:19:06
Ba4934	493.409	clp_std2	blk	16.9169	.000569	06/09/03 10:19:06
Be3130	313.042	clp_std2	blk	17.9578	.002656	06/09/03 10:19:06
Bi2230	223.061	clp_std5	blk	75.8066	.001364	06/09/03 10:19:06
Ca3179	317.933	clp_std1	blk	313.623	-.009821	06/09/03 10:19:06
Cd2265	226.502	clp_std3	blk	7.40194	-.000063	06/09/03 10:19:06
Co2286	228.616	clp_std3	blk	32.2293	.000100	06/09/03 10:19:06
Cr2677	267.716	clp_std2	blk	29.6189	.000186	06/09/03 10:19:06
Cu3247	324.753	clp_std2	blk	30.7336	-.013803	06/09/03 10:19:06
Fe2714	271.441	clp_std1	blk	449.164	.018960	06/09/03 10:19:06
K 7664	766.491	clp_std1	blk	34.6825	-.089670	06/09/03 10:19:06
La4086	408.672	clp_std6	blk	27.1598	-.013007	06/09/03 10:19:06
Li6707	670.784	clp_std1	blk	3.34407	-.001727	06/09/03 10:19:06
Mg2790	279.078	clp_std1	blk	425.288	-.001662	06/09/03 10:19:06
Mn2576	257.610	clp_std3	blk	22.0730	-.000104	06/09/03 10:19:06
Mo2020	202.030	clp_std5	blk	55.0155	.000391	06/09/03 10:19:06
Na5889	588.995	clp_std6	blk	8.90061	.139961	06/09/03 10:19:06
Na3302	330.232	clp_std1	blk	4213.36	.782277	06/09/03 10:19:06
Ni2316	231.604	clp_std2	blk	11.4279	-.000036	06/09/03 10:19:06
P 1782	178.287	clp_std5	blk	199.633	-.026556	06/09/03 10:19:06
2203/1	220.351	clp_std4	blk	20.3454	-.004178	06/09/03 10:19:06
2203/2	220.352	clp_std4	blk	19.6156	.000956	06/09/03 10:19:06
Pd3404	340.458	clp_std6	blk	66.6586	.000469	06/09/03 10:19:06
S 1820	182.040	clp_std6	blk	187.977	-.002626	06/09/03 10:19:06
Sb2068	206.838	clp_std4	blk	75.7795	-.000765	06/09/03 10:19:06
Sc3613	361.384	blk	dark	1.56801	-.198589	06/09/03 10:19:06
1960/1	196.021	clp_std4	blk	38.1178	.005201	06/09/03 10:19:06
1960/2	196.022	clp_std4	blk	21.5291	-.001750	06/09/03 10:19:06
Si2881	288.158	clp_std5	blk	70.9557	-.128370	06/09/03 10:19:06
Pb220	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Se196	196.026	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED
Sn1899	189.989	clp_std5	blk	45.4758	.000966	06/09/03 10:19:06
Sr4215	421.552	clp_std5	blk	6.99999	-.000077	06/09/03 10:19:06
Th2837	283.730	clp_std6	blk	176.486	-.003170	06/09/03 10:19:06
Ti3372	337.280	clp_std5	blk	9.24629	.013243	06/09/03 10:19:06
Tl1908	190.864	clp_std4	blk	287.770	.007420	06/09/03 10:19:06
U 3859	385.958	clp_std6	blk	393.386	-1.73796	06/09/03 10:19:06
V 2924	292.402	clp_std3	blk	126.409	.000690	06/09/03 10:19:06
W 2079	207.910	clp_std6	blk	44.3843	-.004063	06/09/03 10:19:06
Y 3710	371.030	clp_std6	blk	9.83620	.000053	06/09/03 10:19:06
Zn2062	206.200	clp_std3	blk	92.1582	-.000362	06/09/03 10:19:06
Zr3496	349.621	clp_std6	blk	9.05675	-.001871	06/09/03 10:19:06

Analysis Report QC Standard 06/09/03 10:29:14 AM page 1

Method: DAILY1 Sample Name: icv/ccv Operator:
Run Time: 06/09/03 10:24:15
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0230	9.738	4.933	4.744	9.918	1.011	5.008
SDev	.0026	.002	.035	.025	.032	.001	.007
%RSD	.25837	.0200	.7025	.5265	.3275	.0591	.1424
#1	1.0212	9.737	4.909	4.726	9.895	1.011	5.003
#2	1.0249	9.739	4.958	4.761	9.940	1.010	5.013
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	10.00	5.000	5.000	10.00	1.000	5.000
Range	10.000	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.13	1.017	5.010	1.969	2.007	10.19	18.02
SDev	.01	.000	.020	.005	.010	.00	.11
%RSD	.0274	.0272	.3930	.2294	.5034	.0255	.6106
#1	20.12	1.017	4.996	1.966	2.000	10.19	Q17.94
#2	20.13	1.017	5.024	1.973	2.014	10.19	18.10
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00	1.000	5.000	2.000	2.000	10.00	20.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.032	4.751	19.89	1.038	5.085	Q48.56	27.02
SDev	.009	.026	.03	.004	.036	.41	.15
%RSD	.1807	.5488	.1316	.3446	.7034	.8409	.5675
#1	5.026	4.732	19.87	1.036	5.060	Q48.27	27.13
#2	5.039	4.769	19.91	1.041	5.110	Q48.84	Q26.91
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass
Value	5.000	5.000	20.00	1.000	5.000	30.00	30.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.857	5.095	5.038	5.055	1.036	1.032	.9904
SDev	.001	.027	.017	.017	.002	.007	.0003
%RSD	.0261	.5235	.3380	.3333	.2228	.6559	.0354
#1	4.856	5.076	5.026	5.043	1.038	1.028	.9901
#2	4.858	5.114	5.050	5.067	1.034	1.037	.9906
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	5.000	5.000			1.000	1.000	1.000
Range	10.00	10.00			10.00	10.00	10.00

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.67	5.207	5.144	5.034	5.045	5.160	4.950
SDev	.13	.026	.038	.010	.017	.034	.012
%RSD	.1309	.4904	.7448	.2013	.3348	.6593	.2337
#1	98.58	5.189	5.117	5.027	5.033	5.136	4.941
#2	98.76	5.225	5.171	5.041	5.056	5.184	4.958
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value				5.000	5.000	5.000	5.000
Range				10.00	10.00	10.00	10.00

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.262	.9982	4.953	5.309	.9959	5.032	Q1.375
SDev	.007	.0026	.002	.043	.0101	.008	.015
%RSD	.1284	.2574	.0465	.8118	1.011	.1506	1.108
#1	5.257	.9964	4.952	5.279	1.003	5.026	Q1.364
#2	5.267	1.000	4.955	5.340	.9888	5.037	Q1.386
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	5.000	1.000	5.000	5.000	1.000	5.000	1.000
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.874	1.032	4.881
SDev	.004	.005	.006
%RSD	.0893	.5264	.1277
#1	4.877	1.029	4.877
#2	4.871	1.036	4.885
Errors	QC Pass	QC Pass	QC Pass
Value	5.000	1.000	5.000
Range	10.00	10.00	10.00

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	630502	10000	--	--	--	--	--
Sdev	851.3566	.0000000	--	--	--	--	--
%RSD	.1350284	.0000000	--	--	--	--	--
#1	629900	10000	--	--	--	--	--
#2	631104	10000	--	--	--	--	--

010426

Analysis Report Blank Sample 06/09/03 10:36:43 AM page 1

Method: DAILY1 Sample Name: icb/ccb Operator:
Run Time: 06/09/03 10:31:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00069	-.0028	.0007	-.0249	.0002	-.0000	.0015
SDev	.00059	.0006	.0010	.0002	.0001	.0000	.0024
%RSD	84.820	22.14	135.6	.7986	40.10	163.7	158.8
#1	-.00111	-.0033	.0014	-.0248	.0003	.0000	.0033
#2	-.00028	-.0024	.0000	-.0250	.0002	-.0000	-.0007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.00500	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	-.0001	-.0003	.0003	.0002	-.0009	-.0141
SDev	.0000	.0000	.0004	.0001	.0002	.0081	.0020
%RSD	1.622	13.65	140.8	20.33	97.79	949.8	14.11
#1	.0025	-.0001	-.0006	.0002	.0001	-.0066	-.0155
#2	.0026	-.0001	-.0000	.0003	.0003	.0049	-.0127
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0000	-.0074	-.0000	.0041	-.0040	L-.0928
SDev	.0007	.0001	.0024	.0000	.0013	.0012	.0867
%RSD	293.9	263.7	32.29	143.2	32.59	30.81	93.36
#1	-.0007	.0001	-.0090	-.0001	H.0051	-.0031	-.0315
#2	.0002	-.0000	-.0057	.0000	.0032	-.0049	L-.1541
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	-.0005	-.0016	.0018	.0005	.0046	-.0003
SDev	.0000	.0013	.0000	.0025	.0000	.0040	.0018
%RSD	12.45	270.1	2.549	136.8	.7424	85.70	576.0
#1	-.0003	.0004	-.0016	.0036	.0005	.0074	-.0015
#2	-.0003	-.0014	-.0016	.0001	.0005	.0018	.0009
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.43	.0058	.0027	-.0062	.0007	.003A	.0020
SDev	.18	.0039	.0018	.0013	.0016	.0025	.0021
%RSD	.1803	66.57	65.60	20.12	243.8	55.96	103.4
#1	99.55	.0031	.0015	-.0071	.0018	.0020	.0005
#2	99.30	.0086	.0040	-.0053	-.0005	H.0055	.0035
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0006	-.0001	.0029	-.0057	.0002	-.0007
SDev	.0001	.0001	.0001	.0026	.0097	.0001	.0016
%RSD	57.85	15.58	172.7	87.96	169.5	57.97	236.7
#1	.0001	.0005	.0000	.0011	-.0126	.0001	.0005
#2	.0001	.0007	-.0001	.0047	.0011	.0003	-.0018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0007	-.0001
SDev	.0001	.0004	.0004
%RSD	56.77	62.52	664.8
#1	.0002	.0009	-.0003
#2	.0001	.0004	.0002
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	635314	10000	--	--	--	--	--
SDev	1160.362	.0000000	--	--	--	--	--
%RSD	.1826440	.0000000	--	--	--	--	--
#1	636134	10000	--	--	--	--	--
#2	634493	10000	--	--	--	--	--

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Method: DAILY1 Sample Name: pbw Operator:
Run Time: 06/09/03 10:36:52
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00007	.0140	-.0018	-.0410	-.0000	-.0001	.0009
SDev	.00024	.0000	.0001	.0020	.0000	.0001	.0008
%RSD	371.08	.0520	5.305	4.950	141.0	90.51	81.37
#1	.00011	.0140	-.0018	-.0396	-.0001	-.0002	.0004
#2	-.00024	.0140	-.0017	-.0424	-.0000	-.0000	.0015
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.00500	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0023	-.0000	-.0000	.0002	.0004	-.0018	-.0033
SDev	.0001	.0000	.0000	.0003	.0007	.0052	.0058
%RSD	2.148	256.5	121.7	183.1	80.06	298.0	175.6
#1	-.0023	.0000	-.0001	-.0001	.0006	-.0055	.0008
#2	-.0024	-.0000	-.0000	.0004	.0002	.0019	-.0074
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	-.0017	-.0037	-.0001	.0011	-.0125	H.1013
SDev	.0004	.0000	.0029	.0000	.0011	.0005	.0851
%RSD	126.5	2.505	78.61	26.51	100.7	4.116	84.02
#1	-.0000	-.0016	-.0017	-.0001	.0003	-.0129	H.1614
#2	-.0006	-.0017	-.0058	-.0001	.0018	-.0121	.0411
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P_1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0009	.0050	.0003	-.0003	-.0044	.0020
SDev	.0004	.0005	.0015	.0011	.0000	.0043	.0002
%RSD	120.7	50.55	[illegible]	405.1	13.11	95.82	7.873
#1	-.0006	.0006	.0061	-.0005	-.0003	-.0014	.0022
#2	-.0001	.0013	.0039	.0011	-.0003	-.0074	.0019
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.75	.0042	-.0021	-.0050	.0019	-.0000	.0016
SDev	.06	.0040	.0002	.0009	.0002	.0014	.0028
%RSD	.0650	95.24	9.253	17.42	12.72	5025.	171.4
#1	97.79	.0070	-.0020	-.0044	.0017	.0010	-.0003
#2	97.70	.0014	-.0023	-.0056	.0020	-.0011	.0036
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3372	T11908	U_3859	V_2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	-.0014	.0002	L-.0198	-.0078	-.0000	.0034
SDev	.0000	.0009	.0001	.0110	.0176	.0004	.0014
%RSD	20.12	64.29	34.59	55.91	224.0	4273.	39.82
#1	-.0000	-.0007	.0003	L-.0276	.0046	-.0003	.0025
#2	-.0000	-.0020	.0002	L-.0119	-.0203	.0003	.0044
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0007	-.0008
SDev	.0000	.0004	.0002
%RSD	99.82	62.10	30.67
#1	-.0001	.0010	-.0009
#2	-.0000	.0004	-.0006
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	624604	10000	--	--	--	--	--
SDev	409.4148	.00000000	--	--	--	--	--
%RSD	.0655480	.00000000	--	--	--	--	--
#1	624893	10000	--	--	--	--	--
#2	624314	10000	--	--	--	--	--

Analysis Report 06/09/03 10:47:05 AM page 1

Method: DAILY1 Sample Name: lcsw Operator:
Run Time: 06/09/03 10:42:06 sml spiked with 0.025ml Pb (100ppm) = 0.5ppm
Comment:
Mode: CONC Corr. Factor: 1 6-9-03

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00018	.0038	.0000	-.0462	.0001	-.0001	.0017
SDev	.00010	.0002	.0034	.0008	.0000	.0001	.0001
%RSD	53.304	5.932	13010.	1.735	36.66	41.85	4.862
#1	.00011	.0036	-.0024	-.0456	.0001	-.0002	.0017
#2	.00025	.0040	.0024	-.0468	.0001	-.0001	.0016

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0001	.0000	.0006	.0009	.0035	-.0042
SDev	.0005	.0000	.0003	.0004	.0003	.0002	.0052
%RSD	103.6	27.08	621.7	78.17	36.07	6.496	126.3
#1	-.0008	-.0001	-.0002	.0009	.0007	.0033	-.0004
#2	-.0001	-.0001	.0003	.0003	.0011	.0036	-.0079

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	-.0017	-.0024	.0001	.0009	-.0023	.1205
SDev	.0001	.0000	.0019	.0000	.0001	.0011	.0052
%RSD	13.55	2.294	81.70	42.38	7.129	46.59	4.284
#1	.0004	-.0016	-.0038	.0000	.0009	-.0016	.1242
#2	.0005	-.0017	-.0010	.0001	.0008	-.0031	.1169

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0021	.4962	.4953	-.0009	-.0009	.0001
SDev	.0001	.0100	.0028	.0029	.0000	.0163	.0022
%RSD	363.1	470.1	.5643	.5852	4.000	1713.	2329.
#1	-.0001	-.0050	.4943	.4974	-.0009	.0106	.0017
#2	.0000	.0092	.4982	.4933	-.0009	-.0125	-.0015

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.91	.0032	.0045	-.0024	.4952	.0041	.0009
SDev	.08	.0060	.0015	.0021	.0010	.0030	.0006
%RSD	.0812	190.6	33.49	90.50	.2016	74.18	67.86
#1	96.97	.0075	.0056	-.0039	.4959	.0062	.0005
#2	96.86	-.0011	.0034	-.0009	.4944	.0019	.0014

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0011	.0006	-.0051	-.0222	.0002	.0012
SDev	.0000	.0025	.0001	.0105	.0030	.0001	.0028
%RSD	.1952	238.9	12.38	204.7	13.55	80.50	232.3
#1	-.0000	-.0007	.0006	-.0126	-.0243	.0003	.0032
#2	-.0000	.0029	.0005	.0023	-.0201	.0001	-.0008

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0005	-.0001
SDev	.0001	.0004	.0000
%RSD	101	78.86	27.84
#1	.0000	.0008	-.0002
#2	.0001	.0002	-.0001

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	619280	10000	--	--	--	--	--
SDev	443.3560	.0000000	--	--	--	--	--
%RSD	.0715922	.0000000	--	--	--	--	--
#1	619593	10000	--	--	--	--	--
#2	618966	10000	--	--	--	--	--

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Analysis Report 06/09/03 10:52:12 AM page 1

Method: DAILY1 Sample Name: 227265 Operator:
Run Time: 06/09/03 10:47:14
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00008	.0045	-.0018	-.0460	.0001	-.0003	.0028
SDev	.00045	.0050	.0024	.0020	.0000	.0001	.0050
%RSD	543.21	112.0	130.1	4.387	.8556	31.87	175.7
#1	.00024	.0079	-.0001	-.0446	.0001	-.0002	.0063
#2	-.00040	.0080	-.0035	-.0475	.0001	-.0004	-.0007

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0024	-.0002	-.0002	.0003	.0008	.0072	.0011
SDev	.0012	.0000	.0003	.0001	.0006	.0023	.0263
%RSD	49.91	27.34	137.4	46.03	80.41	32.07	2362.
#1	.0032	-.0001	-.0000	.0004	.0012	.0056	.0197
#2	.0015	-.0002	-.0005	.0002	.0003	.0088	-.0175

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0016	-.0023	.0000	-.0004	.0147	.1773
SDev	.0008	.0001	.0058	.0001	.0006	.0054	.4294
%RSD	349.5	5.958	246.3	133.5	155.4	36.55	242.2
#1	.0008	-.0016	.0017	.0000	.0000	.0186	.4810
#2	-.0004	-.0017	-.0064	.0001	-.0008	.0109	-.1264

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0042	1.195	1.205	.0017	-.0056	-.0002
SDev	.0002	.0067	.007	.000	.0015	.0010	.0030
%RSD	22.88	158.8	.5947	.0273	83.73	18.76	1323.
#1	-.0009	-.0005	1.190	1.205	.0028	-.0063	.0015
#2	-.0007	.0089	1.200	1.206	.0007	-.0048	-.0023

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.53	.0013	.0028	.0128	1.201	.0023	.0021
SDev	.21	.0002	.0016	.0025	.003	.0010	.0013
%RSD	.2163	18.02	57.03	19.60	.2153	43.15	63.35
#1	98.38	.0011	.0040	.0146	1.199	.0030	.0030
#2	98.68	.0014	.0017	.0110	1.203	.0016	.0012

Elem	Sr4215	Th2837	Ti3372	T11908	U 3859	V 2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0001	.0009	-.0102	-.0019	.0003	.0022
SDev	.0000	.0024	.0004	.0087	.0043	.0003	.0020
%RSD	128.8	2057.	49.69	85.42	229.5	99.13	87.52
#1	.0000	.0019	.0012	-.0040	.0012	.0001	.0036
#2	.0000	-.0016	.0006	-.0163	-.0049	.0005	.0009

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0005	-.0007
SDev	.0001	.0004	.0001
%RSD	103.9	79.43	21.07
#1	.0000	.0002	-.0006
#2	.0001	.0008	-.0008

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	629596	10000	--	--	--	--	--
SDev	1397.243	.0000000	--	--	--	--	--
%RSD	.2219269	.0000000	--	--	--	--	--
#1	628608	10000	--	--	--	--	--
#2	630584	10000	--	--	--	--	--

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Method: DAILY1 Sample Name: 227265d Operator:
Run Time: 06/09/03 10:52:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.0035	-.0004	-.0447	-.0000	-.0002	-.0010
SDev	.00004	.0073	.0014	.0007	.0000	.0000	.0017
%RSD	291.74	207.8	316.1	1.542	34.43	.6973	175.4
#1	-.00004	.0087	-.0014	-.0442	-.0000	-.0002	-.0021
#2	.00001	-.0017	.0005	-.0452	-.0000	-.0002	.0002

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	-.0002	-.0004	-.0001	.0008	-.0063	-.0200
SDev	.0006	.0002	.0001	.0002	.0003	.0056	.0158
%RSD	54.87	74.32	39.11	290.4	37.74	89.85	78.84
#1	-.0016	-.0003	-.0003	-.0003	.0010	-.0023	-.0312
#2	-.0007	-.0001	-.0005	.0001	.0006	-.0102	-.0089

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0017	-.0052	-.0000	.0006	.0050	-.1021
SDev	.0001	.0001	.0030	.0001	.0004	.0047	.2586
%RSD	53.53	3.128	56.45	1345.	66.88	94.25	253.3
#1	-.0001	-.0018	-.0073	.0000	.0008	.0017	-.2850
#2	-.0003	-.0017	-.0032	-.0001	.0003	.0084	.0808

Elem	Ni2316	P 1782	[illegible]/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	.0075	1.144	1.156	-.0001	.0062	.0009
SDev	.0009	.0018	.005	.006	.0015	.0006	.0007
%RSD	81.93	24.49	.4000	.5093	3016.	9.565	84.00
#1	-.0004	.0088	1.147	1.161	.0010	.0058	.0014
#2	-.0017	.0062	1.141	1.152	-.0011	.0066	.0003

Elem	Sc3613	1960/1	1960/2	Si2881	[illegible]	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.87	.0017	-.0008	.0125	1.151	.0000	.0003
SDev	.64	.0007	.0008	.0008	.005	.0003	.0014
%RSD	.6709	39.29	99.68	6.668	.4731	889.2	498.1
#1	95.41	.0012	-.0002	.0130	1.155	.0003	-.0007
#2	96.32	.0022	-.0014	.0119	1.147	-.0002	.0012

Elem	Sr4215	Th2837	Ti3372	T11908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0008	.0001	-.0081	-.0511	-.0003	.0027
SDev	.0000	.0010	.0000	.0065	.0012	.0003	.0012
%RSD	.5168	117.3	28.14	81.02	2.267	83.02	42.75
#1	-.0000	.0015	.0002	-.0034	-.0503	-.0001	.0036
#2	-.0000	.0001	.0001	-.0127	-.0519	-.0005	.0019

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Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0004	-.0005
SDev	.0000	.0000	.0008
%RSD	76.34	.7706	120.6
#1	-.0000	.0004	-.0001
#2	-.0001	.0004	-.0012

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	612628	10000	--	--	--	--	--
SDev	4046.772	.0000000	--	--	--	--	--
%RSD	.6605600	.0000000	--	--	--	--	--
#1	609766	10000	--	--	--	--	--
#2	615489	10000	--	--	--	--	--

010437

Analysis Report 06/09/03 11:02:26 AM page 1

Method: DAILY1 Sample Name: 227265s Operator:
Run Time: 06/09/03 10:57:28 sml sample spiked with 0.025mL Pb (100ppm) = ~~0.5~~ 0.5ppm
Comment:
Mode: CONC Corr. Factor: 1 DL 6-9-03

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2939
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00002	.0209	-.0027	-.0434	.0001	-.0001	.0016
SDev	.00062	.0011	.0044	.0010	.0001	.0000	.0002
%RSD	2707.0	5.415	163.5	2.214	69.41	3.693	11.60
#1	.00046	.0217	-.0057	-.0427	.0002	-.0001	.0017
#2	-.00042	.0201	.0004	-.0441	.0001	-.0001	.0015

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0001	-.0000	.0002	.0003	.0055	-.0084
SDev	.0004	.0000	.0005	.0005	.0001	.0107	.0008
%RSD	121.1	20.24	1443.	227.3	5.934	193.8	9.849
#1	-.0001	-.0001	.0003	.0006	.0012	.0131	-.0089
#2	-.0007	-.0001	-.0004	-.0001	.0013	-.0020	-.0078

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0017	-.0013	.0000	.0002	-.0068	-.0029
SDev	.0007	.0000	.0005	.0001	.0001	.0029	.1583
%RSD	347.6	1.388	33.95	1536.	38.43	43.22	5473.
#1	.0007	-.0017	-.0017	.0001	.0002	-.0088	-.1148
#2	-.0003	-.0017	-.0010	-.0001	.0001	-.0047	.1090

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	-.0061	1.693	1.700	.0001	.0081	-.0009
SDev	.0007	.0011	.011	.002	.0019	.0041	.0007
%RSD	120.7	18.24	.6274	.0899	1713.	50.65	78.75
#1	-.0001	-.0069	1.701	1.701	.0015	.0052	-.0004
#2	-.0011	-.0054	1.686	1.699	-.0012	.0111	-.0014

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.64	-.0011	.0005	.0134	1.696	-.0002	.0014
SDev	.16	.0029	.0020	.0030	.005	.0004	.0016
%RSD	.1695	182.6	421.4	22.61	.2686	180.3	118.8
#1	95.52	.0005	-.0009	.0113	1.699	-.0004	.0025
#2	95.75	-.0036	.0018	.0156	1.693	.0001	.0002

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	-.0006	.0003	-.0107	-.0126	-.0001	.0057
SDev	.0000	.0013	.0001	.0144	.0162	.0006	.0015
%RSD	31.42	216.6	20.51	139.9	128.3	424.4	26.60
#1	-.0000	.0003	.0004	-.0204	-.0012	.0003	.0047
#2	-.0000	-.0016	.0003	-.0001	-.0240	-.0006	.0068

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0003	-.0008
SDev	.0001	.0003	.0005
%RSD	421.0	102.1	67.75
#1	.0000	.0005	-.0004
#2	-.0001	.0001	-.0011

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	-	--	--	--	--
Avge	611176	10000	--	--	--	--	--
SDev	1055.710	.0000000	--	--	--	--	--
%RSD	.1727344	.0000000	--	--	--	--	--
#1	610429	10000	--	--	--	--	--
#2	611922	10000	--	--	--	--	--

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Method: DAILY1 Sample Name: 227266 Operator:
Run Time: 06/09/03 11:02:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00054	.0112	.0008	-.0477	-.0000	-.0002	.0017
SDev	.00209	.0041	.0039	.0003	.0000	.0000	.0002
%RSD	16.680	36.52	501.1	.6439	692.9	13.03	10.25
#1	-.00060	.0083	-.0020	-.0475	-.0000	-.0001	.0018
#2	-.00047	.0141	.0035	-.0480	.0000	-.0002	.0016

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	-.0002	.0002	.0002	.0007	-.0016	-.0505
SDev	.0003	.0000	.0001	.0002	.0001	.0037	.0496
%RSD	44.72	22.08	48.41	87.47	8.380	224.4	98.25
#1	.0010	-.0001	.0002	.0001	.0008	.0010	-.0855
#2	.0005	-.0002	.0001	.0004	.0007	-.0042	-.0154

Elem	La4086	Li6707	Mn2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	-.0018	-.0070	-.0000	-.0011	-.0119	-.3758
SDev	.0002	.0002	.0014	.0000	.0003	.0073	.3250
%RSD	33.17	8.520	19.98	516.7	30.98	61.41	86.49
#1	-.0009	-.0020	-.0080	-.0000	-.0009	-.0170	-.6056
#2	-.0005	-.0017	-.0060	.0000	-.0013	-.0067	-.1460

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	-.0035	1.200	1.208	-.0017	.0034	-.0003
SDev	.0001	.0073	.017	.008	.0005	.0003	.0026
%RSD	20.38	207.8	1.436	.6684	33.05	9.367	178.2
#1	-.0006	-.0087	1.187	1.203	-.0020	.0031	.0001
#2	-.0005	.0017	1.212	1.214	-.0013	.0036	-.0008

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.15	-.0014	.0038	.0170	1.204	.0021	.0019
SDev	1.44	.0034	.0008	.0016	.011	.0006	.0006
%RSD	1.511	237.3	21.81	9.291	.9230	28.29	33.69
#1	96.16	.0010	.0032	.0159	1.196	.0025	.0015
#2	94.13	-.0039	.0044	.0181	1.212	.0017	.0024

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0015	.0005	-.0129	-.0499	-.0001	.0040
SDev	.0000	.0033	.0003	.0037	.0024	.0001	.0010
%RSD	81.02	217.8	56.50	28.77	4.882	242.1	26.41
#1	-.0001	.0039	.0007	-.0155	-.0516	-.0002	.0032
#2	-.0000	-.0008	.0003	-.0103	-.0482	.0000	.0047

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0000	.0000	-.0011
SDev	.0000	.0001	.0002
%RSD	92.91	612.7	21.96
#1	-.0001	-.0001	-.0013
#2	-.0000	.0001	-.0009

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	608008	10000	--	--	--	--	--
SDev	9111.778	.0000000	--	--	--	--	--
%RSD	1.498628	.0000000	--	--	--	--	--
#1	614451	10000	--	--	--	--	--
#2	601565	10000	--	--	--	--	--

Analysis Report QC Standard 06/09/03 11:17:22 AM page 1

Method: DAILY1 Sample Name: icv/ccv Operator:
Run Time: 06/09/03 11:12:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0232	9.726	4.962	4.741	9.882	1.024	5.023
SDev	.0006	.017	.006	.005	.045	.001	.003
%RSD	.05418	.1714	.1170	.1150	.4579	.1127	.0671
#1	1.0228	9.714	4.966	4.737	9.850	1.023	5.026
#2	1.0235	9.737	4.958	4.745	9.914	1.024	5.021
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	10.00	5.000	5.000	10.00	1.000	5.000
Range	10.000	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.40	1.030	5.058	1.994	1.997	10.30	Q17.93
SDev	.01	.004	.023	.008	.001	.05	.07
%RSD	.0716	.3822	.4503	.4156	.0746	.4592	.3732
#1	20.39	1.027	5.042	1.985	1.996	10.26	Q17.88
#2	20.41	1.033	5.074	1.997	1.998	10.33	Q17.98
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	20.00	1.000	5.000	2.000	2.000	10.00	20.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.023	4.750	20.07	1.049	5.122	Q48.51	Q26.77
SDev	.022	.019	.01	.002	.030	.04	.06
%RSD	.4284	.4036	.0699	.2182	.5947	.0795	.2258
#1	5.008	4.736	20.06	1.048	5.100	Q48.49	Q26.81
#2	5.038	4.763	20.08	1.051	5.143	Q48.54	Q26.73
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Fail
Value	5.000	5.000	20.00	1.000	5.000	30.00	30.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.906	5.250	5.083	5.054	1.033	1.050	.9916
SDev	.023	.029	.032	.019	.000	.015	.0009
%RSD	.4751	.5470	.6344	.3686	.0286	1.431	.0933
#1	4.890	5.270	5.106	5.067	1.033	1.039	.9922
#2	4.923	5.229	5.060	5.041	1.033	1.061	.9909
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	5.000	5.000			1.000	1.000	1.000
Range	10.00	10.00			10.00	10.00	10.00

Elem	Sc3613	1960/1	1960/2	Si2881	Th220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.30	5.202	5.083	5.059	5.059	5.117	4.979
SDev	1.31	.044	.001	.001	.023	.015	.011
%RSD	1.347	.8547	.0159	.0176	.4575	.2999	.2270
#1	96.37	5.234	5.083	5.058	5.075	5.128	4.971
#2	98.22	5.171	5.082	5.060	5.042	5.107	4.987
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value				5.000	5.000	5.000	5.000
Range				10.00	10.00	10.00	10.00

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.262	1.007	4.961	5.348	.9965	5.064	Q1.373
SDev	.013	.001	.001	.034	.0031	.014	.007
%RSD	.2484	.0947	.0143	.6339	.3138	.2702	.5178
#1	5.253	1.008	4.961	5.324	.9943	5.055	Q1.378
#2	5.271	1.006	4.960	5.372	.9987	5.074	Q1.368
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	5.000	1.000	5.000	5.000	1.000	5.000	1.000
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.885	1.046	4.889
SDev	.003	.004	.008
%RSD	.0585	.4109	.1734
#1	4.883	1.043	4.883
#2	4.887	1.049	4.895
Errors	QC Pass	QC Pass	QC Pass
Value	5.000	1.000	5.000
Range	10.00	10.00	10.00

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	621738	10000	--	--	--	--	--
SDev	8386.286	.0000000	--	--	--	--	--
%RSD	1.348846	.0000000	--	--	--	--	--
#1	615808	10000	--	--	--	--	--
#2	627668	10000	--	--	--	--	--

Analysis Report Blank Sample 06/09/03 11:24:51 AM page 1

Method: DAILY1 Sample Name: icb/ccb Operator:
Run Time: 06/09/03 11:19:52
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ap3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00026	.0032	-.0003	-.0382	.0004	-.0001	.0002
SDev	.00061	.0032	.0001	.0001	.0003	.0002	.0018
%RSD	232.05	99.91	18.44	.2889	60.92	179.5	859.2
#1	-.00069	.0055	-.0004	-.0383	.0002	-.0003	.0015
#2	.00017	.0009	-.0003	-.0381	.0006	.0000	-.0011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.00500	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0041	.0000	.0002	.0004	.0002	.0112	-.0006
SDev	.0016	.0002	.0003	.0005	.0001	.0089	.0005
%RSD	37.95	505.9	144.4	107.6	61.26	79.24	78.47
#1	.0030	-.0001	-.0000	.0001	.0001	.0049	-.0003
#2	.0053	.0002	.0005	.0008	.0003	.0175	-.0009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	-.0000	-.0003	.0001	.0040	.0024	H.1420
SDev	.0006	.0000	.0010	.0001	.0006	.0026	.0599
%RSD	105.0	91.51	333.9	124.3	15.33	109.1	42.17
#1	.0001	-.0001	-.0010	.0000	.0044	.0005	H.1843
#2	.0010	-.0000	.0004	.0001	.0036	.0042	H.0996
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0081	-.0017	.0007	.0009	.0039	.0018
SDev	.0004	.0089	.0015	.0001	.0024	.0012	.0027
%RSD	162.3	109.6	87.42	18.66	270.7	29.77	150.8
#1	-.0006	.0018	-.0027	.0006	-.0020	.0047	.0037
#2	.0000	H.0145	-.0006	.0008	.0026	.0031	-.0001
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

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Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.62	.0053	-.0005	-.0041	-.0001	.0015	.0045
SDev	1.25	.0016	.0010	.0006	.0006	.0012	.0028
%RSD	1.293	29.88	193.2	15.41	539.7	82.60	61.63
#1	95.73	.0042	-.0012	-.0037	-.0005	.0006	.0025
#2	97.51	.0065	.0002	-.0046	.0003	.0023	H.0064
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3372	T11908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0009	.0002	-.0007	-.0082	.0006	.0048
SDev	.0001	.0010	.0005	.0048	.0092	.0004	.0054
%RSD	54.91	103.5	226.0	673.0	112.6	70.27	113.5
#1	.0001	.0016	-.0001	.0027	-.0147	.0003	.0009
#2	.0003	.0002	.0005	-.0041	-.0017	.0009	.0086
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0003	.0002	-.0001
SDev	.0002	.0004	.0007
%RSD	70.46	178.3	579.7
#1	.0002	-.0001	-.0006
#2	.0004	.0005	.0004
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Count*	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.394	--	--	--	--	--	--
Avne	617434	10000	--	--	--	--	--
SDev	7976.872	.00000000	--	--	--	--	--
%RSD	1.291940	.00000000	--	--	--	--	--
#1	611793	10000	--	--	--	--	--
#2	623074	10000	--	--	--	--	--

Analysis Report QC Standard 06/09/03 11:40:24 AM page 1

Method: DAILY1 Sample Name: icv/ccv Operator:
Run Time: 06/09/03 11:35:25
Comment:
Mode: CONC Corr. Factors: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0229	9.784	4.869	4.703	9.993	.9988	5.027
SDev	.0041	.012	.011	.019	.016	.0035	.009
%RSD	.40505	.1217	.2175	.4005	.1604	.3486	.1750
#1	1.0199	9.775	4.862	4.690	10.00	.9964	5.021
#2	1.0258	9.792	4.877	4.717	9.982	1.001	5.033
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	10.00	5.000	5.000	10.00	1.000	5.000
Range	10.000	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.87	.9986	4.937	1.950	2.011	10.12	18.22
SDev	.08	[illegible]	.009	.008	.003	.04	.02
%RSD	.4221	.2621	.4383	.4226	.1249	.4143	.1294
#1	19.81	.9967	4.922	1.944	2.009	10.09	18.23
#2	19.92	1.000	4.953	1.955	2.013	10.15	18.20
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	20.00	1.000	5.000	2.000	2.000	10.00	20.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	La4086	Li6707	Mg2790	Mn2576	Mo[illegible]	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.072	4.793	19.73	1.029	5.044	Q48.90	Q26.96
SDev	.012	.013	.07	.004	.047	.09	.10
%RSD	.2293	.2638	.3709	.3451	.9241	.1790	.3623
#1	5.064	4.802	19.68	1.026	5.011	Q48.96	27.03
#2	5.081	4.784	19.78	1.031	5.077	Q48.84	Q26.89
Errors	QC Pass	QC P[illegible]	QC Pass	QC Pass	QC Pass	QC Fail	QC Fail
Value	5.000	5.000	20.00	1.000	5.000	30.00	30.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.797	5.264	4.949	4.968	1.037	1.023	.9837
SDev	.007	.011	.010	.023	.002	.018	.0037
%RSD	.1561	.2022	.2058	.4580	.2[illegible]	1.800	.3786
#1	4.792	5.256	4.956	4.952	1.035	1.010	.9811
#2	4.802	5.271	4.942	4.984	1.038	1.036	.9863
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	5.000	5.000			1.000	1.000	1.000
Range	10.00	10.00			10.00	10.00	10.00

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.01	5.123	5.052	5.010	4.957	5.071	4.886
SDev	.29	.008	.018	.021	.012	.015	.001
%RSD	.2942	.1511	.3610	.4212	.2373	.2903	.0160
#1	96.81	5.117	5.039	4.995	4.948	5.060	4.886
#2	97.21	5.128	5.065	5.025	4.965	5.081	4.885
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value				5.000	5.000	5.000	5.000
Range				10.00	10.00	10.00	10.00
Elem	Sr4215	Th2837	Ti3372	T11908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.274	.9955	4.937	5.261	.9864	5.006	Q1.353
SDev	.001	.0032	.002	.044	.0153	.014	.012
%RSD	.0136	.3245	.0451	.8326	1.549	.2834	.9165
#1	5.274	.9932	4.935	5.230	.9756	4.996	Q1.344
#2	5.275	.9978	4.938	5.292	.9972	5.016	Q1.361
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	5.000	1.000	5.000	5.000	1.000	5.000	1.000
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.888	1.009	4.890
SDev	.002	.004	.003
%RSD	.0510	.3642	.0592
#1	4.886	1.007	4.892
#2	4.890	1.012	4.888
Errors	QC Pass	QC Pass	QC Pass
Value	5.000	1.000	5.000
Range	10.00	10.00	10.00

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	619927	10000	--	--	--	--	--
SDev	1821.507	.0000000	--	--	--	--	--
%RSD	.2938260	.0000000	--	--	--	--	--
#1	618639	10000	--	--	--	--	--
#2	621215	10000	--	--	--	--	--

Analysis Report Blank Sample 06/09/03 11:47:53 AM page 1

Method: DAILY1 Sample Name: icb/ccb Operator:
Run Time: 06/09/03 11:42:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	[illegible] 7130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00014	-.0055	.0009	-.0423	.0002	-.0000	H.0051
SDev	.00020	.0004	.0016	.0006	.0001	.0000	.0010
%RSD	144.47	7.741	176.2	1.514	60.98	141.2	19.38
#1	-.00028	-.0052	-.0002	-.0418	.0003	-.0001	H.0059
#2	.00000	-.0058	.0020	-.0427	.0001	-.0000	.0044
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	.00500	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.00500	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	-.0002	.0001	-.0001	-.0002	-.0061	-.0090
SDev	.0001	.0001	.0001	.0003	.0004	.0031	.0026
%RSD	1.444	85.93	148.9	173.5	199.3	50.91	29.17
#1	.0033	-.0003	.0001	-.0003	-.0004	-.0082	-.0072
#2	.0034	-.0001	-.0000	.0000	.0001	-.0039	-.0109
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	[illegible]	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0000	-.0043	-.0000	H.0054	-.0022	H.1648
SDev	.0003	.0000	.0028	.0000	.0001	.0013	.0001
%RSD	455.6	498.4	65.45	1966.	2.223	57.12	.0287
#1	-.0003	.0000	-.0023	-.0000	H.0055	-.0013	H.1648
#2	.0002	-.0000	-.0063	.0000	H.0054	-.0031	H.1648
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC High
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	.0000	.0012	-.0011	.0010	.0010	.0022
SDev	.0004	.0112	.0008	.0003	.0018	.0023	.0006
%RSD	42.46	68400.	65.95	26.68	179.0	221.1	26.68
#1	-.0007	.0079	.0018	-.0009	.0022	-.0006	.0018
#2	-.0012	-.0079	.0006	-.0013	-.0003	.0026	.0026
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.5	.0090	-.0013	-.0064	-.0003	.0024	.0009
SDev	.0	.0004	.0011	.0006	.0005	.0008	.0011
%RSD	.0029	4.168	83.83	9.219	133.9	34.36	134.4
#1	100.5	.0101	-.0005	-.0060	-.0030	.0030	.0017
#2	100.5	.0095	-.0020	-.0068	-.0007	.0019	.0000
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0002	.0002	H.0164	.0124	-.0001	.0027
SDev	.0001	.0011	.0001	.0101	.0009	.0000	.0036
%RSD	66.64	485.5	50.38	61.85	7.149	4.384	130.2
#1	.0001	-.0010	.0002	H.0234	.0117	-.0000	.0002
#2	.0000	.0006	.0001	.0092	.0130	-.0001	.0053
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0006	-.0006
SDev	.0000	.0001	.0000
%RSD	17.49	17.43	.8018
#1	.0001	.0005	-.0006
#2	.0001	.0006	-.0006
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	642340	10000	--	--	--	--	--
SDev	2.828427	.0000000	--	--	--	--	--
%RSD	.0004403	.0000000	--	--	--	--	--
#1	642342	10000	--	--	--	--	--
#2	642338	10000	--	--	--	--	--

010453

Analysis Report 06/09/03 11:53:01 AM page 1

Method: DAILY1 Sample Name: pbw-F09W1 pp54-056 Operator:
Run Time: 06/09/03 11:48:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00027	.0167	.0002	-.0420	.0002	-.0002	-.0008
SDev	.00011	.0068	.0010	.0011	.0001	.0002	.0024
%RSD	38.608	40.46	566.4	2.725	43.26	104.1	294.4
#1	-.00020	.0215	-.0005	-.0412	.0003	-.0000	.0009
#2	-.00035	.0119	.0009	-.0428	.0002	-.0003	-.0025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.00500	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0253	.0000	.0000	-.0003	.0005	-.0057	-.0054
SDev	.0015	.0001	.0004	.0003	.0006	.0009	.0158
%RSD	5.937	230.9	842.3	97.14	117.4	15.12	294.9
#1	.0264	.0001	.0003	-.0001	.0010	-.0063	.0058
#2	.0243	-.0000	-.0002	-.0005	.0001	-.0051	-.0166
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0001	.0009	-.0001	.0027	-.0101	.0713
SDev	.0006	.0000	.0050	.0000	.0000	.0008	.0081
%RSD	869.8	26.60	566.1	50.14	1.086	7.716	11.41
#1	.0005	.0002	.0027	-.0000	.0027	-.0096	L-.0656
#2	-.0004	.0001	-.0044	-.0001	.0027	-.0107	L-.0771
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0052	.0009	-.0014	.0002	-.0018	.0019
SDev	.0003	.0029	.0004	.0000	.0007	.0046	.0005
%RSD	44.11	55.06	43.63	2.189	416.4	254.9	26.17
#1	-.0005	.0032	.0007	-.0014	-.0003	.0015	.0016
#2	-.0010	.0072	.0012	-.0014	.0007	-.0057	.0023
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.33	.0085	.0001	.0031	-.0006	.0029	.0026
SDev	1.21	.0024	.0007	.0007	.0001	.0003	.0023
%RSD	1.283	28.70	779.2	22.68	18.71	11.24	85.70
#1	93.48	.0102	-.0004	.0036	-.0007	.0031	.0042
#2	95.19	.0068	.0006	.0026	-.0005	.0027	.0010
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3372	T11908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0008	.0005	-.0015	.0142	-.0001	.0060
SDev	.0001	.0014	.0001	.0187	.0086	.0000	.0051
%RSD	26.11	181.4	11.21	1231.	60.97	6.658	84.59
#1	.0002	-.0002	.0004	L-.0147	.0203	-.0001	.0096
#2	.0002	.0018	.0005	H.0117	.0081	-.0001	.0024
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0015	-.0008
SDev	.0001	.0003	.0002
%RSD	85.45	19.51	20.08
#1	.0001	.0013	-.0007
#2	.0000	.0018	-.0010
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	602864	10000	--	--	--	--	--
SDev	7725.849	.0000000	--	--	--	--	--
%RSD	1.281524	.0000000	--	--	--	--	--
#1	597401	10000	--	--	--	--	--
#2	608327	10000	--	--	--	--	--

Analysis Report 06/09/03 11:58:09 AM page 1

Method: DAILY1 Sample Name: lcsw-F09W1 Operator:
Run Time: 06/09/03 11:53:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05180	1.882	2.013	-.0417	2.003	.0517	.0041
SDev	.00009	.004	.005	.0005	[illegible]	.0002	.0017
%RSD	.16771	.2197	.2308	1.293	.1694	.4114	41.46
#1	.05174	1.879	2.016	-.0414	2.000	.0516	.0053
#2	.05186	1.885	2.009	-.0421	2.005	.0519	.0029

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.59	.0518	.5064	.2005	.2476	1.016	16.20
SDev	.03	.0005	.0025	.0005	.0001	.012	.01
%RSD	.1630	.9723	.1037	.2596	.0220	1.210	.0522
#1	20.57	.0515	.5068	.2001	.2477	1.008	16.21
#2	20.62	.0522	.5061	.2008	.2476	1.025	16.20

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0008	20.36	.5188	.0004	30.01	16.86
SDev	.0004	.0000	.03	.0008	.0004	.00	.32
%RSD	47.88	3.819	.1272	.1586	104.6	.0156	1.903
#1	.0012	.0007	20.34	.5183	.0008	30.01	17.09
#2	.0006	.0008	20.38	.5194	.0001	30.01	16.64

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4992	.0136	.5089	.5149	.0007	.0009	.5023
SDev	.0028	.0081	.0006	.0026	.0001	.0044	.0013
%RSD	.5631	59.67	.1085	.5075	12.97	506.7	.2622
#1	.4972	.0194	.5093	.5131	.0007	-.0023	.5033
#2	.5012	.0079	.5085	.5168	.0006	.0040	.5014

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.02	2.029	2.056	4.165	.5124	2.045	.0011
SDev	.20	.006	.008	.003	.0016	.007	.0006
%RSD	.2157	.3203	.3768	.0664	.3038	.3580	55.28
#1	94.17	2.025	2.051	4.167	.5113	2.040	.0015
#2	93.88	2.034	2.061	4.163	.5135	2.050	.0006

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0021	.0004	2.136	.0281	.5061	.0044
SDev	.0000	.0020	.0003	.013	.0128	.0009	.0029
%RSD	2.626	97.25	70.41	.5917	45.66	.1870	65.31
#1	.0003	-.0035	.0006	2.145	.0372	.5055	.0064
#2	.0003	-.0007	.0002	2.127	.0190	.5068	.0024

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.5273	.0020
SDev	.0001	.0017	.0004
%RSD	125.6	.3214	22.21
#1	.0000	.5261	.0017
#2	.0001	.5285	.0024

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	600859	10000	--	--	--	--	--
SDev	1310.976	.0000000	--	--	--	--	--
%RSD	.2181836	.0000000	--	--	--	--	--
#1	601786	10000	--	--	--	--	--
#2	599932	10000	--	--	--	--	--

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Method: DAILY1 Sample Name: 226223 Operator:
Run Time: 06/09/03 11:58:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	[illegible]3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00035	.0210	-.0015	-.0456	.0413	-.0001	.0032
SDev	.00056	.0173	.0008	.0003	.0003	.0001	.0006
%RSD	161.15	81.98	53.39	.5812	.6854	106.9	19.47
#1	.00074	.0088	-.0021	-.0454	.0415	-.0000	.0036
#2	-.00005	.0333	-.0009	-.0458	.0411	-.0002	.0027

Elem	Ca[illegible]79	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	42.89	-.0001	-.0000	.0003	.0008	-.0042	.0081
SDev	.13	.0001	.0003	.0006	.0006	.0006	.0042
%RSD	.2997	73.26	9417.	176.1	67.37	13.59	51.39
#1	42.80	-.0000	.0002	.0008	.0012	-.0038	.0110
#2	42.98	-.0001	-.0002	-.0001	.0004	-.0046	.0051

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0000	.0061	.0012	.0010	.0229	-.0702
SDev	.0000	.0000	.0064	.0001	.0004	.0012	.0962
%RSD	2.241	98.37	105.5	10.38	46.27	5.082	136.9
#1	.0007	.0000	.0106	.0012	.0007	.0237	-.0022
#2	.0008	.0001	.0016	.0011	.0013	.0220	-.1382

Elem	Ni2316	P 1782	2203/1	2203/2	Pd[illegible]04	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0064	-.0003	.0002	.0022	.0063	.0009
SDev	.0001	.0015	.0017	.0021	.0003	.0005	.0006
%RSD	403.4	24.33	604.1	1033.	11.19	7.623	64.83
#1	.0000	.0053	.0009	-.0013	.0024	.0059	.0014
#2	-.0001	.0075	-.0015	.0017	.0020	.0066	.0005

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se[illegible]	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.88	.0035	.0013	3.366	.0000	.0021	.0034
SDev	.45	.0088	.0001	.012	.0008	.0030	.0016
%RSD	.4697	253.0	3.610	.3684	2003.	144.3	46.14
#1	95.19	.0097	.0014	3.357	-.0006	.0042	.0045
#2	94.56	-.0028	.0013	3.374	.0006	-.0000	.0023

Elem	Sr4215	Th2837	Ti3372	T11908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0284	.0020	.0003	-.0039	.1945	-.0001	.0048
SDev	.0000	.0024	.0003	.0034	.0107	.0027	.0031
%RSD	.1313	119.3	88.04	87.18	5.490	289.4	65.42
#1	.0283	.0003	.0005	-.0015	.2021	.0001	.0070
#2	.0284	.0038	.0001	-.0063	.1870	-.0003	.0026

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0002	.0012	-.0005
SDev	.0000	.0005	.0004
%RSD	14.79	44.35	83.42
#1	.0002	.0016	-.0002
#2	.0003	.0008	-.0008

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	606308	10000	--	--	--	--	--
SDev	2844.691	.0000000	--	--	--	--	--
%RSD	.4691828	.0000000	--	--	--	--	--
#1	608319	10000	--	--	--	--	--
#2	604296	10000	--	--	--	--	--

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Method: DAILY1 Sample Name: 226227 Operator:
Run Time: 06/09/03 12:03:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00035	.0197	-.0026	-.0470	.0007	-.0002	-.0011
SDev	.00044	.0042	.0005	.0000	.0001	.0001	.0023
%RSD	126.88	21.49	20.72	.0025	8.951	62.29	203.5
#1	-.00066	.0227	-.0022	-.0470	.0007	-.0001	-.0028
#2	-.00004	.0167	-.0030	-.0470	.0006	-.0003	.0005

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	35.81	-.0000	-.0004	.0003	.0032	.0065	.1019
SDev	.03	.0001	.0002	.0001	.0002	.0012	.0002
%RSD	.0758	344.6	52.08	46.26	6.167	18.16	.1827
#1	35.79	.0000	-.0006	.0002	.0031	.0057	.1020
#2	35.83	-.0001	-.0003	.0004	.0033	.0074	.1018

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	-.0000	.0024	.0000	.0002	.0573	-.1579
SDev	.0003	.0000	.0055	.0001	.0003	.0003	.0810
%RSD	1049.	578.2	231.7	137.3	141.7	.6151	51.32
#1	-.0002	-.0000	-.0015	.0001	.0004	.0576	-.2152
#2	.0002	.0000	.0063	.0000	-.0000	.0571	-.1006

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0092	.0007	.0014	.0011	.0020	-.0010
SDev	.0007	.0034	.0017	.0005	.0000	.0013	.0013
%RSD	1738.	37.10	231.8	35.33	.8661	64.97	139.2
#1	-.0005	.0116	-.0005	.0017	.0011	.0011	-.0019
#2	.0005	.0068	.0019	.0010	.0011	.0029	-.0000

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.34	.0020	.0030	2.778	.0012	.0027	.0039
SDev	.37	.0047	.0016	.003	.0002	.0005	.0027
%RSD	.3975	228.2	53.10	.1065	19.94	18.13	70.98
#1	94.07	-.0013	.0041	2.781	.0010	.0024	.0058
#2	94.60	.0053	.0019	2.776	.0013	.0030	.0019

Elem	Sr4215	Th2837	Ti3372	T11908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0211	-.0003	.0001	-.0014	.0155	.0001	.0033
SDev	.0000	.0020	.0002	.0023	.0171	.0003	.0033
%RSD	.0133	671.2	161.1	165.2	110.2	443.0	99.34
#1	.0211	.0011	-.0000	.0002	.0034	.0003	.0057
#2	.0211	-.0017	.0002	-.0031	.0276	-.0001	.0010

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0009	.0011
SDev	.0001	.0005	.0003
%RSD	198.5	62.65	26.08
#1	.0001	.0005	.0009
#2	-.0000	.0012	.0013

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	602822	10000	--	--	--	--	--
SDev	2378.000	.0000000	--	--	--	--	--
%RSD	.3944777	.0000000	--	--	--	--	--
#1	601141	10000	--	--	--	--	--
#2	604504	10000	--	--	--	--	--

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Method: DAILY1 Sample Name: 226228 Operator:
Run Time: 06/09/03 12:08:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2[illegible]
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00023	.0163	-.0006	-.0467	.0005	-.0003	.0025
SDev	.00040	.0078	.0032	.0011	.0001	.0000	.0025
%RSD	176.24	48.00	539.8	2.451	11.23	11.71	98.57
#1	.00051	.0107	-.0028	-.0459	.0006	-.0003	.0008
#2	-.00006	.0218	.0017	-.0475	.0005	-.0003	.0042

Elem	Ca3179	Cd2265	Co2[illegible]86	Cr2677	Cu3247	Fe2714	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	47.95	-.0000	-.0001	.0001	.0005	.0053	.0461
SDev	.22	.0000	.0001	.0001	.0007	.0062	.0017
%RSD	.4590	2634.	125.4	102.6	128.7	117.6	3.785
#1	47.80	.0000	-.0000	.0002	.0010	.0009	.0473
#2	48.11	-.0000	-.0002	.0000	.0000	.0097	.0449

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0001	.0056	-.0001	-.0001	.1282	-.0888
SDev	.0001	.0000	.0045	.0000	.0001	.0014	.0315
%RSD	32.90	25.43	79.78	55.60	107.8	1.103	35.43
#1	.0005	.0001	.0088	-.0001	-.0002	.1272	-.0666
#2	.0003	.0001	.0025	-.0000	-.0000	.1292	-.1111

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0098	-.0015	.0003	.0004	.0081	-.0000
SDev	.0006	.0073	.0039	.0004	.0014	.0017	.0002
%RSD	157.5	74.41	258.2	136.4	318.0	21.54	1032.
#1	-.0008	.0149	.0012	.0006	.0014	.0068	.0001
#2	.0000	.0046	-.0043	.0000	-.0005	.0093	-.0001

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.98	.0062	.0005	3.865	-.0003	.0024	.0027
SDev	.20	.0015	.0001	.018	.0016	.0006	.0033
%RSD	.2135	24.46	16.85	.4679	521.2	23.17	123.1
#1	94.84	.0051	.0005	3.852	.0008	.0020	.0003
#2	95.13	.0073	.0006	3.878	-.0014	.0028	.0050

Elem	Sr4215	Th2837	Ti3372	T11908	U 3859	V 2924	W_2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0271	.0015	.0002	-.0054	.0175	-.0000	.0024
SDev	.0000	.0017	.0002	.0020	.0161	.0001	.0014
%RSD	.0920	112.0	96.33	37.66	92.18	380.3	58.63
#1	.0271	.0003	.0004	-.0068	.0289	-.0001	.0014
#2	.0271	.0027	.0001	-.0039	.0061	.0001	.0035

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0004	.0007
SDev	.0000	.0001	.0001
%RSD	5.667	28.26	11.50
#1	.0000	.0003	.0006
#2	.0000	.0004	.0007

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	606968	10000	--	--	--	--	--
SDev	1297.541	.0000000	--	--	--	--	--
%RSD	.2137744	.0000000	--	--	--	--	--
#1	606050	10000	--	--	--	--	--
#2	607885	10000	--	--	--	--	--

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Method: DAILY1 Sample Name: 226229 Operator:
Run Time: 06/09/03 12:13:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.0212	-.0007	-.0487	.0010	-.0003	-.0016
SDev	.00039	.0009	.0011	.0013	.0001	.0000	.0068
%RSD	191.60	4.267	169.2	2.591	8.028	5.465	435.4
#1	-.00048	.0218	-.0015	-.0478	.0009	-.0003	-.0064
#2	.00007	.0205	.0001	-.0495	.0010	-.0003	.0032

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	43.29	-.0001	-.0002	.0008	.0007	.0073	.1555
SDev	.09	.0001	.0001	.0001	.0001	.0080	.0073
%RSD	.2185	75.62	58.31	13.18	17.00	110.3	4.713
#1	43.22	-.0000	-.0001	.0007	.0008	.0016	.1503
#2	43.36	-.0001	-.0003	.0009	.0006	.0129	.1607

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0000	-.0000	.0001	-.0001	.1051	-.1931
SDev	.0003	.0000	.0015	.0001	.0000	.0035	.1547
%RSD	129.0	19.78	3105.	61.41	.6812	3.314	80.12
#1	.0004	-.0000	.0010	.0001	-.0001	.1026	-.3024
#2	.0000	-.0001	-.0011	.0000	-.0001	.1075	-.0837

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	-.0036	-.0014	.0011	.0000	.0020	.0002
SDev	.0002	.0009	.0016	.0011	.0008	.0031	.0004
%RSD	29.88	22.28	112.7	96.09	4612.	158.6	255.3
#1	.0009	-.0042	-.0025	.0019	.0006	.0042	-.0001
#2	.0006	-.0031	-.0003	.0004	-.0005	-.0002	.0005

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.06	.0035	-.0021	4.082	.0003	-.0002	-.0006
SDev	.52	.0049	.0048	.003	.0002	.0048	.0001
%RSD	.5560	141.3	223.9	.0722	68.21	1956.	11.24
#1	93.69	.0000	-.0055	4.084	.0004	-.0036	-.0006
#2	94.43	.0069	.0012	4.080	.0001	.0031	-.0005

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0255	.0022	.0001	-.0031	-.0184	-.0001	.0012
SDev	.0000	.0017	.0004	.0101	.0082	.0001	.0027
%RSD	.0622	75.64	397.3	326.3	44.41	283.1	235.7
#1	.0255	.0010	-.0002	.0040	-.0126	-.0002	-.0008
#2	.0255	.0034	.0004	-.0102	-.0241	.0001	.0031

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0042	.0012
SDev	.0000	.0002	.0002
%RSD	61.06	5.819	17.45
#1	.0001	.0044	.0011
#2	.0000	.0040	.0014

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	601090	10000	--	--	--	--	--
SDev	3337.544	.0000000	--	--	--	--	--
%RSD	.5552486	.0000000	--	--	--	--	--
#1	598730	10000	--	--	--	--	--
#2	603450	10000	--	--	--	--	--

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Method: DAILY1 Sample Name: 226230 Operator:
Run Time: 06/09/03 12:18:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00014	.0132	.0022	-.0496	.0005	-.0002	.0018
SDev	.00050	.0001	.0016	.0003	.0000	.0003	.0020
%RSD	362.07	.3856	74.49	.6293	3.728	114.8	111.9
#1	.00021	.0132	.0033	-.0498	.0005	-.0000	.0032
#2	-.00049	.0132	.0010	-.0494	.0005	-.0004	.0004

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	46.36	-.0001	.0008	-.0001	.0012	.0022	.0235
SDev	.05	.0001	.0002	.0000	.0002	.0044	.0101
%RSD	.1157	81.03	24.63	31.42	19.93	204.4	43.08
#1	46.40	-.0002	.0006	-.0001	.0010	.0053	.0307
#2	46.32	-.0000	.0009	-.0001	.0013	-.0010	.0163

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0001	.0018	.0000	-.0002	.1713	.0704
SDev	.0005	.0000	.0000	.0000	.0007	.0031	.0735
%RSD	103.1	4.660	.7791	61.38	320.4	1.809	104.3
#1	-.0001	.0001	.0018	.0000	.0003	.1735	.1224
#2	-.0009	.0001	.0018	.0000	-.0007	.1691	.0185

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	.0092	-.0008	-.0004	.0001	.0003	.0003
SDev	.0001	.0063	.0007	.0026	.0010	.0070	.0003
%RSD	11.45	68.49	90.50	675.8	1190.	2239.	93.61
#1	-.0005	.0047	-.0013	.0015	-.0006	-.0046	.0005
#2	-.0006	.0136	-.0003	-.0022	.0008	.0052	.0001

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.74	.0092	-.0013	3.554	-.0005	.0022	.0013
SDev	.15	.0016	.0031	.003	.0015	.0026	.0018
%RSD	.1539	17.69	246.4	.0781	281.9	118.1	145.3
#1	95.84	.0103	.0009	3.552	.0005	.0041	.0026
#2	95.64	.0080	-.0035	3.556	-.0016	.0004	-.0000

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0264	-.0007	.0002	-.0079	.0129	-.0004	-.0024
SDev	.0000	.0010	.0000	.0117	.0081	.0001	.0027
%RSD	.0147	140.8	24.48	148.0	63.29	30.93	158.5
#1	.0264	-.0000	.0001	.0004	.0186	-.0005	-.0051
#2	.0265	-.0014	.0002	-.0161	.0071	-.0003	.0003

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0007	.0010
SDev	[illegible]	.0001	.0000
%RSD	21.67	15.65	2.624
#1	-.0001	.0008	.0010
#2	-.0000	.0006	.0010

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	611809	10000	--	--	--	--	--
SDev	957.4226	.0000000	--	--	--	--	--
%RSD	.1564907	.0000000	--	--	--	--	--
#1	612485	10000	--	--	--	--	--
#2	611131	10000	--	--	--	--	--

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Method: DAILY1 Sample Name: 226232 Operator:
Run Time: 06/09/03 12:24:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00000	.0270	.0008	-.0495	.0005	-.0002	-.0003
SDev	.00029	.0070	.0015	.0001	.0000	.0001	.0006
%RSD	5983.2	25.99	184.6	.2279	7.343	42.71	217.1
#1	-.00021	.0320	.0019	-.0495	.0005	-.0002	.0002
#2	.00020	.0221	-.0003	-.0496	.0006	-.0003	-.0007

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	41.70	-.0000	-.0003	.0004	.0011	.0122	.0051
SDev	.06	.0001	.0003	.0001	.0003	.0002	.0072
%RSD	.1518	243.6	85.11	29.66	32.02	1.356	141.2
#1	41.66	.0000	-.0001	.0003	.0008	.0123	.0102
#2	41.75	-.0001	-.0005	.0005	.0013	.0121	.0000

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0003	.0028	.0001	.0001	.0163	-.0293
SDev	.0007	.0001	.0050	.0000	.0004	.0029	.2647
%RSD	457.6	16.18	176.6	.8685	484.7	17.83	902.4
#1	-.0003	.0003	-.0007	.0001	-.0002	.0183	.1578
#2	.0006	.0003	.0063	.0001	.0004	.0142	-.2165

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0035	-.0020	-.0001	-.0002	.0032	.0009
SDev	.0005	.0030	.0023	.0009	.0010	.0093	.0006
%RSD	396.8	84.95	115.7	788.8	474.5	288.4	66.68
#1	-.0005	.0014	-.0036	-.0008	.0005	-.0033	.0014
#2	.0002	.0056	-.0004	.0005	-.0009	.0098	.0005

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.08	.0056	.0018	3.160	-.0007	.0031	-.0009
SDev	.28	.0078	.0019	.007	.0014	.0039	.0009
%RSD	.2985	139.8	104.0	.2223	186.1	125.0	102.2
#1	93.89	.0111	.0032	3.155	-.0017	.0058	-.0015
#2	94.28	.0001	.0005	3.165	.0002	.0004	-.0002

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0244	.0014	-.0000	.0050	.0862	.0001	.0024
SDev	.0001	.0008	.0000	.0041	.0092	.0003	.0006
%RSD	.3882	55.52	75.21	80.37	10.73	408.2	26.04
#1	.0245	.0020	-.0000	.0079	.0927	-.0001	.0019
#2	.0244	.0009	-.0001	.0022	.0796	.0003	.0028

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0004	.0003
SDev	.0001	.0009	.0001
%RSD	73.89	223.9	28.60
#1	.0000	.0010	.0002
#2	.0001	-.0002	.0004

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	601252	10000	--	--	--	--	--
SDev	1829.992	.0000000	--	--	--	--	--
%RSD	.3043636	.0000000	--	--	--	--	--
#1	599958	10000	--	--	--	--	--
#2	602546	10000	--	--	--	--	--

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Method: DAILY1 Sample Name: 226233 Operator:
Run Time: 06/09/03 12:29:52
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.0098	-.0008	-.0520	.0004	-.0002	-.0009
SDev	.00031	.0004	.0048	.0001	.0000	.0001	.0015
%RSD	72.058	3.729	583.2	.2457	9.611	25.80	164.9
#1	-.00064	.0095	-.0042	-.0519	.0004	-.0003	-.0019
#2	-.00021	.0100	.0026	-.0520	.0004	-.0002	.0001

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	39.43	-.0001	.0006	-.0000	.0008	.0070	.0353
SDev	.01	.0002	.0000	.0001	.0001	.0044	.0004
%RSD	.0134	265.1	6.530	1083.	12.70	63.91	1.146
#1	39.42	-.0002	.0006	.0000	.0008	.0038	.0350
#2	39.43	.0001	.0006	-.0001	.0007	.0101	.0356

Elem	La4086	Li6707	Mo2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0001	.0002	-.0000	-.0004	.2228	.0864
SDev	.0005	.0000	.0005	.0000	.0003	.0017	.0951
%RSD	660.9	60.01	235.1	132.1	60.79	.7736	110.1
#1	.0003	.0001	.0006	-.0000	-.0006	.2240	.1536
#2	-.0004	.0000	-.0001	-.0000	-.0002	.2216	.0191

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0056	-.0013	.0006	.0005	.0036	-.0009
SDev	.0009	.0018	.0007	.0002	.0001	.0011	.0042
%RSD	778.6	31.88	53.50	28.51	21.39	29.35	468.6
#1	.0005	-.0044	-.0008	.0007	.0006	.0044	.0021
#2	-.0007	-.0069	-.0018	.0005	.0004	.0029	-.0039

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.52	.0075	-.0030	3.301	-.0000	.0005	.0008
SDev	.25	.0004	.0028	.003	.0003	.0017	.0006
%RSD	.2637	5.506	93.14	.1009	786.6	337.0	76.64
#1	95.70	.0072	-.0010	3.298	.0002	.0017	.0013
#2	95.34	.0077	-.0050	3.303	-.0003	-.0007	.0004

Elem	Sr4215	Th2837	Ti3372	T11908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0229	.0019	.0000	-.0072	.0508	-.0002	.0012
SDev	.0001	.0029	.0001	.0000	.0033	.0004	.0017
%RSD	.2691	154.2	549.3	.6217	6.457	186.5	138.9
#1	.0229	.0040	-.0000	-.0072	.0485	-.0005	.0024
#2	.0230	-.0002	.0001	-.0072	.0531	.0001	.0000

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	-.0001	.0000	.0015
SDev	.0000	.0001	.0002
%RSD	76.15	411.8	14.66
#1	-.0001	.0001	.0013
#2	-.0000	-.0000	.0017

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	610398	10000	--	--	--	--	--
SDev	1584.626	.0000000	--	--	--	--	--
%RSD	.2596052	.0000000	--	--	--	--	--
#1	611519	10000	--	--	--	--	--
#2	609278	10000	--	--	--	--	--

010472

Analysis Report 06/09/03 12:40:22 PM page 1

Method: DAILY1 Sample Name: 226244 Operator:
Run Time: 06/09/03 12:35:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00040	.0128	.0006	-.0525	.0180	-.0002	.0019
SDev	.00059	.0052	.0015	.0015	.0000	.0000	.0065
%RSD	146.36	40.83	236.0	2.947	.2252	12.00	340.9
#1	.00001	.0165	-.0004	-.0514	.0180	-.0002	.0065
#2	-.00082	.0091	.0017	-.0536	.0180	-.0003	-.0027

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	40.81	-.0001	.0000	.0003	.0007	.0064	-.0061
SDev	.21	.0002	.0002	.0002	.0001	.0022	.0081
%RSD	.5126	154.1	1965.	68.71	17.09	34.75	132.7
#1	40.95	.0000	.0002	.0005	.0008	.0080	-.0004
#2	40.66	-.0003	-.0001	.0002	.0006	.0049	-.0118

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0001	-.0005	.0004	-.0013	.0120	-.0875
SDev	.0016	.0000	.0054	.0001	.0002	.0001	.0667
%RSD	853.4	41.03	1107.	12.56	14.56	1.264	76.22
#1	.0013	.0001	.0034	.0004	-.0011	.0119	-.0403
#2	-.0009	.0001	-.0043	.0004	-.0014	.0121	-.1347

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0041	.0014	-.0016	.0015	.0093	.0027
SDev	.0001	.0054	.0036	.0011	.0004	.0028	.0004
%RSD	78.18	131.5	259.1	66.00	26.47	29.53	13.75
#1	.0001	.0079	.0040	-.0024	.0018	.0074	.0029
#2	.0002	.0003	-.0012	-.0009	.0012	.0113	.0024

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.29	.0073	-.0014	3.204	-.0006	.0015	.0027
SDev	.44	.0016	.0016	.010	.0005	.0005	.0022
%RSD	.4536	21.85	109.6	.3062	78.50	33.53	81.98
#1	95.98	.0084	-.0025	3.211	-.0003	.0011	.0042
#2	96.60	.0062	-.0003	3.197	-.0010	.0019	.0011

Elem	Sr4215	Th2837	Ti3372	T11908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0264	-.0011	.0001	.0011	.0466	-.0001	.0031
SDev	.0000	.0016	.0007	.0102	.0253	.0000	.0052
%RSD	.0243	138.9	1281.	901.0	54.28	1.842	165.9
#1	.0264	-.0022	.0005	.0084	.0645	-.0001	.0068
#2	.0264	-.0000	-.0004	-.0061	.0287	-.0001	-.0005

Elem	Y_3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0007	-.0005
SDev	.0001	.0005	.0003
%RSD	50.74	71.50	56.62
#1	.0001	.0011	-.0003
#2	.0002	.0004	-.0007

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	615262	10000	--	--	--	--	--
SDev	2794.486	.0000000	--	--	--	--	--
%RSD	.4541945	.0000000	--	--	--	--	--
#1	613286	10000	--	--	--	--	--
#2	617238	10000	--	--	--	--	--

Analysis Report QC Standard 06/09/03 12:50:13 PM page 1

Method: DAILY1 Sample Name: icv/ccv Operator:
Run Time: 06/09/03 12:45:14
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0256	9.769	4.966	4.744	9.942	1.025	5.063
SDev	.0061	.006	.024	.010	.054	.002	.007
%RSD	.59866	.0628	.4884	.2163	.5447	.2390	.1309
#1	1.0213	9.765	4.949	4.737	9.980	1.023	5.059
#2	1.0300	9.774	4.984	4.751	9.904	1.027	5.068
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	10.00	5.000	5.000	10.00	1.000	5.000
Range	10.000	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.23	1.030	5.034	1.982	2.001	10.26	Q17.92
SDev	.13	.004	.010	.009	.001	.02	.03
%RSD	.6544	.3932	.1904	.4313	.0697	.2142	.1399
#1	20.13	1.027	5.027	1.976	2.000	10.25	Q17.90
#2	20.32	1.033	5.041	1.989	2.002	10.28	Q17.93
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	20.00	1.000	5.000	2.000	2.000	10.00	20.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	La4086	Li6707	Mo2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.039	4.741	Q0.03	1.044	5.133	Q48.31	Q26.87
SDev	.012	.001	.08	.005	.051	.08	.12
%RSD	.2387	.0122	.4147	.4436	.9978	.1624	.4296
#1	5.048	4.740	19.97	1.041	5.097	Q48.25	Q26.78
#2	5.031	4.741	20.09	1.048	5.169	Q48.36	Q26.95
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Fail
Value	5.000	5.000	20.00	1.000	5.000	30.00	30.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.907	5.408	5.039	5.092	1.035	1.071	.9934
SDev	.012	.175	.053	.027	.003	.018	.0050
%RSD	.2470	3.232	1.061	.5366	.2978	1.635	.4995
#1	4.898	Q5.532	5.001	5.073	1.033	1.083	.9899
#2	4.915	5.285	5.077	5.112	1.037	1.058	.9969
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	5.000	5.000			1.000	1.000	1.000
Range	10.00	10.00			10.00	10.00	10.00

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.82	5.161	5.146	5.067	5.069	5.146	4.998
SDev	.44	.062	.032	.019	.036	.042	.015
%RSD	.4632	1.199	.6213	.3792	.7101	.8144	.2909
#1	96.14	5.117	5.124	5.054	5.044	5.116	4.987
#2	95.51	5.205	5.169	5.081	5.095	5.176	5.008
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value				5.000	5.000	5.000	5.000
Range				10.00	10.00	10.00	10.00

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.268	1.000	4.952	5.301	1.010	5.059	Q1.377
SDev	.011	.008	.011	.062	.017	.010	.003
%RSD	.2142	.7861	.2242	1.163	1.637	.1969	.2377
#1	5.276	.9945	4.945	5.257	.9982	5.052	Q1.375
#2	5.260	1.006	4.960	5.344	1.022	5.066	Q1.380
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	5.000	1.000	5.000	5.000	1.000	5.000	1.000
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.888	1.043	4.895
SDev	.010	.002	.005
%RSD	.1989	.139	.0958
#1	4.895	1.042	4.898
#2	4.881	1.044	4.892
Errors	QC Pass	QC Pass	QC Pass
Value	5.000	1.000	5.000
Range	10.00	10.00	10.00

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	612304	10000	--	--	--	--	--
SDev	2820.649	.0000000	--	--	--	--	--
%RSD	.4606619	.0000000	--	--	--	--	--
#1	614298	10000	--	--	--	--	--
#2	610309	10000	--	--	--	--	--

Analysis Report Blank Sample 06/09/03 12:57:42 PM page 1

Method: DAILY1 Sample Name: icb/ccb Operator:
Run Time: 06/09/03 12:52:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00041	.0004	.0024	L-.0523	.0002	-.0002	[illegible]
SDev	.00066	.0051	.0009	.0001	.0001	.0001	.0011
%RSD	159.96	1300.	38.30	.2451	74.64	40.03	23.08
#1	-.00088	-.0032	.0030	L-.0524	.0003	-.0003	.0040
#2	.00005	.0040	.0017	L-.0522	.0001	-.0001	H.0056
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	.00500	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.00500	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0027	-.0001	-.0002	-.0000	-.0000	-.0008	-.0153
SDev	.0006	.0001	.0000	.0004	.0002	.0008	.0022
%RSD	23.35	55.82	19.85	975.6	739.7	98.85	14.59
#1	.0031	-.0001	-.0002	-.0004	.0001	-.0003	-.0137
#2	.0022	-.0001	-.0002	.0003	-.0002	-.0014	[illegible]
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0000	-.0057	-.0000	.0031	-.0116	-.0418
SDev	.0010	.0000	.0029	.0000	.0009	.0000	.0610
%RSD	679.7	166.3	50.66	132.0	27.96	.3466	146.0
#1	-.0006	.0000	-.0077	-.0000	.0037	-.0116	.0014
#2	.0009	-.0000	-.0036	-.0000	.0025	-.0116	L-.0850
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1920	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0037	.0004	-.0003	.0005	-.0019	-.0000
SDev	.0006	.0032	.0004	.0000	.0008	.0002	.0002
%RSD	308.4	86.30	116.7	15.02	151.3	11.41	2164.
#1	-.0006	.0059	.0001	-.0003	-.0000	-.0017	.0001
#2	.0002	.0014	.0007	-.0003	.0011	-.0020	-.0001
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.20	.0061	.0019	-.0069	-.0001	.0033	-.0002
SDev	.05	.0029	.0041	.0004	.0002	.0018	.0019
%RSD	.0471	48.73	218.5	6.466	258.8	[illegible]	[illegible]
#1	98.17	.0082	-.0010	-.0072	-.0002	.0020	-.0016
#2	98.23	.0040	.0048	-.0066	.0001	.0045	.0011
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0008	.0003	.0022	.0199	-.0001	-.0020
SDev	.0000	.0022	.0002	.0003	.0001	.0000	.0028
%RSD	53.82	273.2	80.39	14.88	.2894	9.554	134.4
#1	.0001	-.0024	.0001	.0024	.0200	-.0001	-.0001
#2	.0000	.0007	.0004	.0019	.0199	-.0001	-.0040
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0000	.0002	-.0006
SDev	.0001	.0001	.0002
%RSD	406.6	65.56	25.03
#1	.0001	.0002	-.0005
#2	-.0001	.0001	-.0007
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avne	627492	10000	--	--	--	--	--
SDev	331.6331	.0000000	--	--	--	--	--
%RSD	.0528505	.0000000	--	--	--	--	--
#1	627258	10000	--	--	--	--	--
#2	627727	10000	--	--	--	--	--

Analysis Report 06/09/03 01:02:49 PM page 1

Method: DAILY1 Sample Name: 226247 Operator:
Run Time: 06/09/03 12:57:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00086	.0135	.0001	-.0525	.0424	-.0002	-.0001
SDev	.00098	.0023	.0026	.0006	.0000	.0001	.0000
%RSD	114.18	17.23	2621.	1.068	.0023	33.82	14.52
#1	-.00017	.0152	.0019	-.0521	.0424	-.0002	-.0001
#2	-.00155	.0119	-.0017	-.0529	.0424	-.0001	-.0001

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	42.19	-.0001	.0000	.0003	.0006	.0030	-.0033
SDev	.01	.0000	.0003	.0005	.0005	.0033	.0112
%RSD	.0166	15.94	3432.	175.5	85.39	108.5	339.3
#1	42.19	-.0001	.0002	-.0001	.0002	.0007	.0046
#2	42.20	-.0001	-.0002	.0006	.0010	.0053	-.0112

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0001	-.0010	.0006	.0006	.0039	-.2149
SDev	.0002	.0000	.0025	.0001	.0004	.0008	.1796
%RSD	187.7	6.145	235.8	16.38	71.43	21.13	83.57
#1	.0000	.0001	.0007	.0005	.0003	.0045	-.0879
#2	-.0003	.0001	-.0028	.0007	.0009	.0033	-.3419

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0017	.0020	.0000	-.0008	[illegible]	.0006
SDev	.0003	.0003	.0025	.0019	.0002	.0055	.0021
%RSD	273.8	18.85	124.6	4098.	18.32	165.9	344.0
#1	-.0003	-.0019	.0038	-.0013	-.0007	.0072	.0021
#2	.0001	-.0014	.0002	.0014	-.0009	-.0006	-.0009

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899
Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	95.35	.0023	.0005	3.271	.0007	.0011	.0018
SDev	.58	.0020	.0040	.003	.0004	.0020	.0023
%RSD	.6119	84.58	739.1	.1010	59.46	171.6	129.7
#1	94.93	.0037	-.0023	3.273	.0004	-.0002	.0034
#2	95.76	.0009	.0033	3.268	.0010	.0025	.0001

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0273	.0007	.0001	.0002	.1118	-.0002	.0027
SDev	.0001	.0009	.0001	.0183	.0039	.0001	.0024
%RSD	.2042	125.2	103.3	9859.	3.518	63.74	89.65
#1	.0272	.0001	.0000	.0131	.1146	-.0001	.0010
#2	.0273	.0013	.0001	-.0128	.1090	-.0003	.0044

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0002	.0005	-.0005
SDev	.0001	.0002	.0000
%RSD	25.18	39.85	4.624
#1	.0002	.0004	-.0006
#2	.0003	.0007	-.0005

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Avge	609308	10000	--	--	--	--	--
SDev	3703.118	.0000000	--	--	--	--	--
%RSD	.6077575	.0000000	--	--	--	--	--
#1	606690	10000	--	--	--	--	--
#2	611927	10000	--	--	--	--	--

Analysis Report QC Standard 06/09/03 01:12:38 PM page 1

Method: DAILY1 Sample Name: icv/ccv Operator:
Run Time: 06/09/03 13:07:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0247	9.720	4.955	4.713	9.884	1.018	5.030
SDev	.0002	.022	.016	.006	.023	.002	.004
%RSD	.01968	.2289	.3207	.1250	.2322	.1925	.0826
#1	1.0248	9.735	4.944	4.709	9.900	1.017	5.027
#2	1.0246	9.704	4.966	4.717	9.868	1.020	5.033
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	10.00	5.000	5.000	10.00	1.000	5.000
Range	10.000	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.25	1.030	5.027	1.981	1.993	10.26	Q17.94
SDev	.00	.004	.027	.007	.004	.02	.12
%RSD	.0059	.3738	.5448	.3438	.2118	.1993	.6424
#1	20.25	1.027	5.046	1.986	1.996	10.27	18.02
#2	20.25	1.033	5.007	1.976	1.990	10.24	Q17.85
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	20.00	1.000	5.000	2.000	2.000	10.00	20.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.003	4.729	20.01	1.044	5.111	Q48.26	Q26.90
SDev	.025	.027	.05	.005	.017	.27	.24
%RSD	.5017	.5662	.2358	.4450	.3402	.5638	.8873
#1	5.021	4.748	20.04	1.047	5.099	Q48.45	27.07
#2	4.986	4.710	19.97	1.041	5.124	Q48.07	Q26.73
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Fail
Value	5.000	5.000	20.00	1.000	5.000	30.00	30.00
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.901	5.403	5.106	5.121	1.030	1.067	.9845
SDev	.017	.014	.018	.063	.002	.010	.0033
%RSD	.3521	.2547	.3457	1.232	.1780	.9014	.3384
#1	4.889	5.394	5.094	5.077	1.029	1.074	.9868
#2	4.913	5.413	5.119	5.166	1.031	1.060	.9821
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass
Value	5.000	5.000			1.000	1.000	1.000
Range	10.00	10.00			10.00	10.00	10.00

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.70	5.229	5.166	5.044	5.111	5.182	4.986
SDev	.26	.004	.097	.011	.048	.066	.004
%RSD	.2661	.0754	1.887	.2110	.9369	1.278	.0722
#1	96.52	5.226	5.097	5.051	5.077	5.135	4.989
#2	96.88	5.231	5.235	5.036	5.145	5.228	4.984
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value				5.000	5.000	5.000	5.000
Range				10.00	10.00	10.00	10.00

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.229	.9949	4.948	5.311	1.008	5.047	01.374
SDev	.025	.0118	.002	.009	.008	.006	.019
%RSD	.4780	1.183	.0309	.1672	.7535	.1113	1.361
#1	5.247	1.003	4.947	5.305	1.013	5.051	01.360
#2	5.211	.9866	4.949	5.317	1.002	5.043	01.387
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail
Value	5.000	1.000	5.000	5.000	1.000	5.000	1.000
Range	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	4.877	1.042	4.885
SDev	.006	.002	.002
%RSD	.1263	.1675	.0500
#1	4.882	1.043	4.883
#2	4.873	1.041	4.887
Errors	QC Pass	QC Pass	QC Pass
Value	5.000	1.000	5.000
Range	10.00	10.00	10.00

IntStd	1	2	3	4	5	6	7
Mode	*Counts	Time	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Sc	--	--	--	--	--	--
Wavlen	361.384	--	--	--	--	--	--
Ayne	[illegible]	10000	--	--	--	--	--
SDev	1657.458	.0000000	--	--	--	--	--
%RSD	.2682310	.0000000	--	--	--	--	--
#1	616750	10000	--	--	--	--	--
#2	619094	10000	--	--	--	--	--

Analysis Report Blank Sample 06/09/03 01:20:07 PM page 1

Method: DAILY1 Sample Name: icb/ccb Operator:
Run Time: 06/09/03 13:15:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B 2496	Ba4934	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00062	-.0003	-.0025	L-.0538	.0003	-.0002	.0002
SDev	.00015	.0056	.0024	.0006	.0003	.0000	.0001
%RSD	24.099	2070.	94.90	1.1[illegible]	98.38	21.67	50.22
#1	-.00052	.0037	-.0008	L-.0534	.0005	-.0002	.0001
#2	-.00073	-.0042	-.0042	L-.0543	.0001	-.0001	.0003
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	.00500	.0500	.0050	.0500	.0050	.0050	.0050
Low	-.00500	-.0500	-.0050	-.0500	-.0050	-.0050	-.0050

Elem	Ca3179	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K 7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0028	-.0003	-.0001	-.0001	.0005	-.0004	-.0109
SDev	.0006	.0000	.0002	.0000	.0000	.0013	.0093
%RSD	20.76	11.67	135.6	26.07	4.874	306.7	84.92
#1	.0024	-.0003	-.0000	-.0001	.0006	.0005	-.0044
#2	.0032	-.0003	-.0003	-.0001	.0005	-.0013	-.0175
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.0500	.0050	.0050	.0050	.0050	.0250	.1000
Low	-.0500	-.0050	-.0050	-.0050	-.0050	-.0250	-.1000

Elem	La4086	Li6707	Mg2790	Mn2576	Mo2020	Na5889	Na3302
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0000	-.0061	-.0000	.0039	-.0015	L-.0884
SDev	.0007	.0001	.0014	.0000	.0017	.0013	.0427
%RSD	170.4	332.9	22.93	54.52	42.33	84.72	48.27
#1	-.0009	.0001	-.0051	-.0000	H.0051	-.0006	L-.0582
#2	.0001	-.0001	-.0071	-.0001	.0028	-.0024	L-.1186
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
High	.0050	.0050	.0500	.0050	.0050	.0500	.0500
Low	-.0050	-.0050	-.0500	-.0050	-.0050	-.0500	-.0500

Elem	Ni2316	P 1782	2203/1	2203/2	Pd3404	S 1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0029	-.0006	-.0006	-.0006	.0030	.0007
SDev	.0000	.0060	.0006	.0013	.0005	.0041	.0010
%RSD	.6724	207.3	104.0	225.2	77.36	137.6	135.5
#1	-.0007	.0072	-.0002	.0003	-.0009	.0059	.0000
#2	-.0007	-.0014	-.0011	-.0015	-.0003	.0001	.0014
Errors	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	.0050	.0100			.0050	.0100	.0100
Low	-.0050	-.0100			-.0050	-.0100	-.0100

Elem	Sc3613	1960/1	1960/2	Si2881	Pb220	Se196	Sn1899

Units	%R	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.13	.0039	-.0011	-.0051	-.0006	.0006	.0025
SDev	1.13	.0007	.0011	.0001	.0011	.0005	.0044
%RSD	1.159	18.88	101.9	1.187	183.4	82.48	177.0
#1	96.34	.0034	-.0003	-.0052	.0002	.0009	H.0056
#2	97.93	.0044	-.0019	-.0051	-.0014	.0002	-.0006
Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High				.0100	.0030	.0050	.0050
Low				-.0100	-.0030	-.0050	-.0050

Elem	Sr4215	Th2837	Ti3372	Tl1908	U 3859	V 2924	W 2079
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0006	.0001	L-.0141	-.0178	.0001	.0030
SDev	.0001	.0002	.0001	.0014	.0003	.0003	.0031
%RSD	138.6	27.98	96.11	9.817	1.484	270.2	102.8
#1	.0002	.0005	.0000	L-.0132	-.0177	.0003	.0052
#2	.0000	.0008	.0002	L-.0151	-.0180	-.0001	.0008
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	.0050	.0100	.0050	.0100	.1000	.0050	.0100
Low	-.0050	-.0100	-.0050	-.0100	-.1000	-.0050	-.0100

Elem	Y 3710	Zn2062	Zr3496
Units	ppm	ppm	ppm
Avge	.0001	.0002	-.0004
SDev	.0000	.0001	.0002
%RSD	31.33	69.63	38.98
#1	.0001	.0002	-.0003
#2	.0001	.0001	-.0006
Errors	LC Pass	LC Pass	LC Pass
High	.0050	.0050	.0050
Low	-.0050	-.0050	-.0050

010488

tot U. ANALYSIS

Reported 226231 only

PROJ. NO.	PROJECT	TO#	DATE	MATRIX	LOGBK PG
06002-01.071	Div 20	05052013	6/12/03	Liq	54 061
					54 062
					54 063

INSTRUMENT: ICP MS FILENAME: 052013a.prn

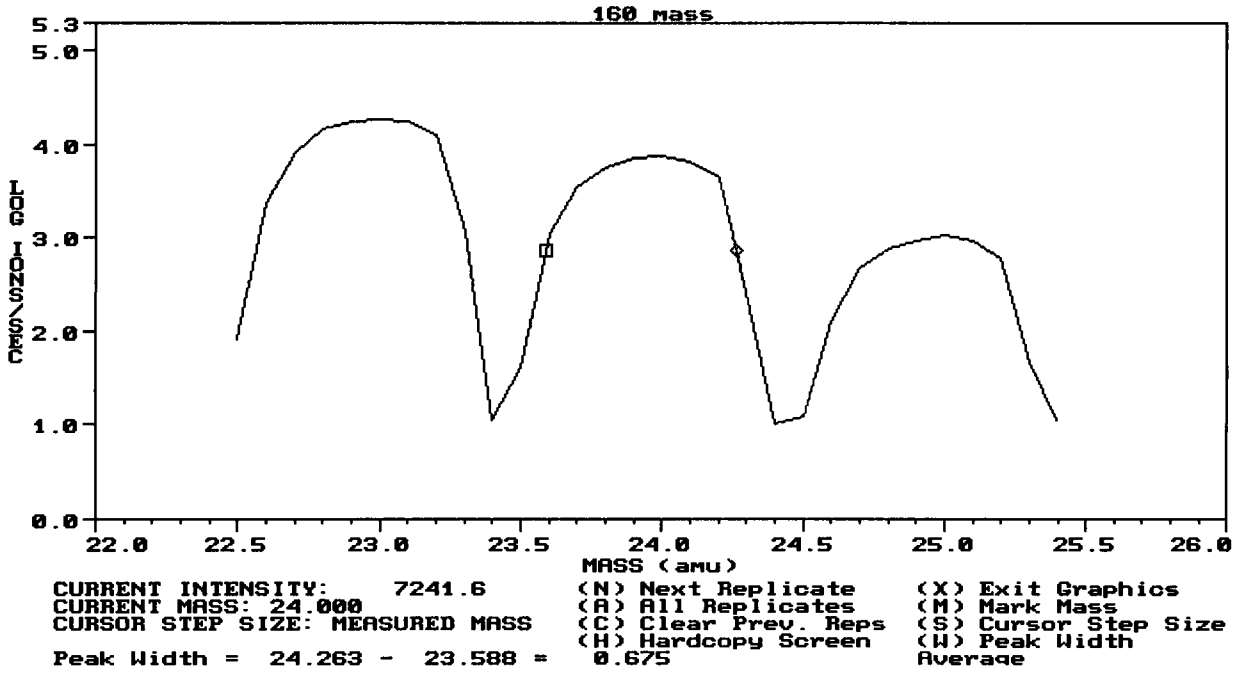
INSTRUMENT DL:

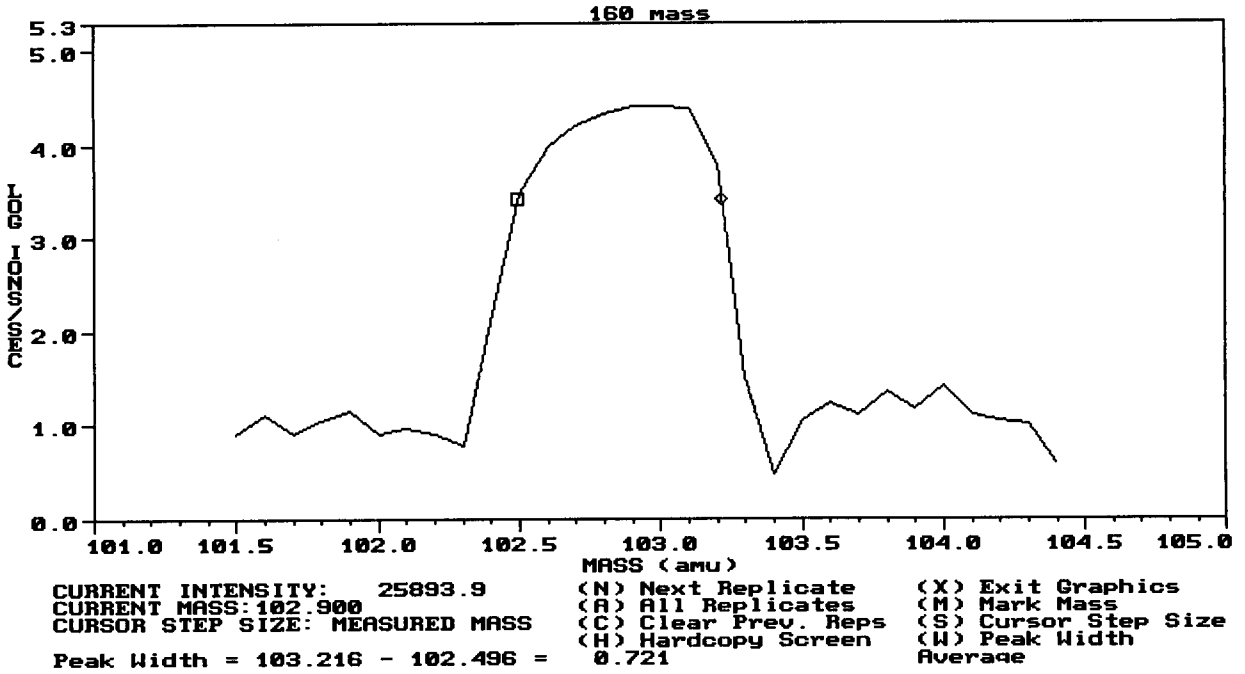
GRAPHICS: SIGNAL DISPLAY SUMMARY REPORT

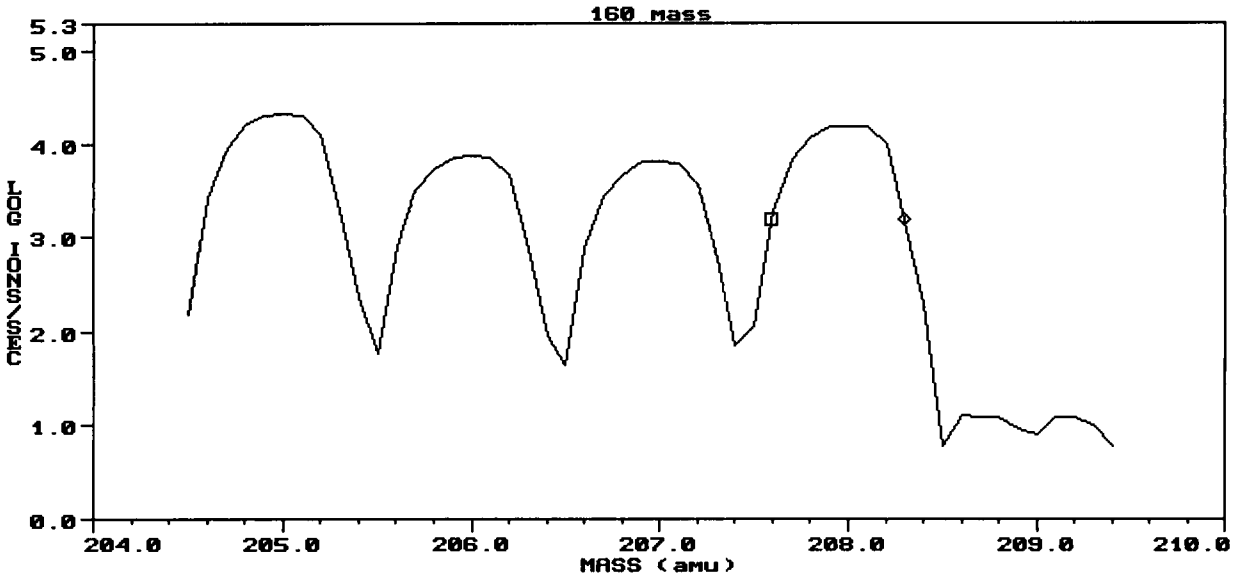
010489

Data Set:	june03-misc4
Data Set Description:	
Parameter File:	tune_setup
Sample ID:	tune
Sample Description:	
Sample Type:	Sample
Sequence Number:	159
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	10
Time:	12:34:57 Jun 12 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88

	Intensity	Intensity Std Dev	RSD
Mg 24	7491.1367	172.8515	2.31
Rh 103	2.550E+04	423.3112	1.66
Pb 208	1.540E+04	439.2035	2.85


160 mass
5.3
5.0
4.0
3.0
2.0
1.0
0.0
LOG IONS\SEC
22.0
22.5
23.0
23.5
24.0
24.5
25.0
25.5
26.0
MASS (amu)
CURRENT INTENSITY: 7241.6
CURRENT MASS: 24.000
CURSOR STEP SIZE: MEASURED MASS
Peak Width = 24.263 - 23.588 = 0.675
(N) Next Replicate
(A) All Replicates
(C) Clear Prev. Reps
(H) Hardcopy Screen
(X) Exit Graphics
(M) Mark Mass
(S) Cursor Step Size
(W) Peak Width Average


160 mass
5.3
5.0
4.0
3.0
2.0
1.0
0.0
LOG IONS\SEC
101.0
101.5
102.0
102.5
103.0
103.5
104.0
104.5
105.0
MASS (amu)
CURRENT INTENSITY: 25893.9
CURRENT MASS:102.900
CURSOR STEP SIZE: MEASURED MASS
Peak Width = 103.216 - 102.496 = 0.721
(N) Next Replicate
(A) All Replicates
(C) Clear Prev. Reps
(H) Hardcopy Screen
(X) Exit Graphics
(M) Mark Mass
(S) Cursor Step Size
(W) Peak Width Average



CURRENT INTENSITY: 15174.3
CURRENT MASS:208.000
CURSOR STEP SIZE: MEASURED MASS

Peak Width = 208.300 - 207.592 = 0.707

(N) Next Replicate
(A) All Replicates
(C) Clear Prev. Reps
(H) Hardcopy Screen

(X) Exit Graphics
(M) Mark Mass
(S) Cursor Step Size
(W) Peak Width Average

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010493

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: u_di
Sample Description:
Sample Type: Standard
Sequence Number: 161
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:14:50 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

Cordova 6/12/03

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	30	3.2707	0	0.0000
U 238	8	2.5357	0	0.0000
Bi 209	15	1.4142	0	0.0000
Bi 209	15	1.4142	0	0.0000
233.00	8	2.1213	0	0.0000
234.00	7	1.0607	0	0.0000
235.00	7	0.3535	0	0.0000
238.00	6	0.0000	0	0.0000
232.00	4	2.4749	0	0.0000
236.00	7	0.0000	0	0.0000
U 238	30	0.3536	0	0.0000
U 238	8	1.7678	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.0627	0.2256				
U 238 ┘	0.5430	0.1749				
Bi 209 <┘	15	1.4142			ions/sec	
Bi 209	15	1.4142			%r	
233.00	8	2.1213				
234.00	7	1.0607				
235.00	7	0.3535				
238.00	6	0.0000				
232.00	4	2.4749				
236.00	7	0.0000				
U 238	30	0.3536				
U 238	8	1.7678				

	Entered Conc.
U 238 ┐	
U 238 ┘	
Bi 209 <┘	0.0000
Bi 209	0.0000
233.00	
234.00	
235.00	
238.00	
232.00	
236.00	
U 238	
U 238	

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010494

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: u_s0
Sample Description:
Sample Type: Standard
Sequence Number: 162
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:16:30 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	39	4.6903	0	0.0000
U 238	18	1.7714	0	0.0000
Bi 209	24943	508.6092	0	0.0000
Bi 209	24943	508.6092	0	0.0000
233.00	9	2.1213	0	0.0000
234.00	6	1.7678	0	0.0000
235.00	7	2.1213	0	0.0000
238.00	18	2.1213	0	0.0000
232.00	13	0.0000	0	0.0000
236.00	7	0.7071	0	0.0000
U 238	39	3.8891	0	0.0000
U 238	18	1.4142	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	1.575E-03	1.880E-04			ng/l	
U 238 ┘	7.023E-04	7.102E-05			ng/l	
Bi 209 <┘	24943	508.6092			ions/sec	
Bi 209	24943	508.6092	100.0000	2.0403	%r	2.0403
233.00	9	2.1213				
234.00	6	1.7678				
235.00	7	2.1213				
238.00	18	2.1213				
232.00	13	0.0000				
236.00	7	0.7071				
U 238	39	3.8891			ng/l	
U 238	18	1.4142			ng/l	

	Entered Conc.
U 238 ┐	0.0000
U 238 ┘	0.0000
Bi 209 <┘	100.0000
Bi 209	100.0000
233.00	
234.00	
235.00	
238.00	
232.00	
236.00	
U 238	0.0000
U 238	0.0000

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010495

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: u_10
Sample Description:
Sample Type: Standard
Sequence Number: 163
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:18:16 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	32380	1558.7594	0	0.0000
U 238	32251	1555.1157	0	0.0000
Bi 209	24417	1269.7456	0	0.0000
Bi 209	24417	1269.7456	0	0.0000
233.00	6	1.4142	0	0.0000
234.00	8	0.3536	0	0.0000
235.00	115	4.9500	0	0.0000
238.00	34851	1176.8546	0	0.0000
232.00	31073	2090.6633	0	0.0000
236.00	12	4.2427	0	0.0000
U 238	32340	124.7348	0	0.0000
U 238	32210	121.9566	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	1.3261	0.0638	1.000E+04	481.9673	ng/l	4.8197
U 238	]	1.3208	0.0637	1.000E+04	482.4521	ng/l	4.8245
Bi 209	<	24417	1269.7456			ions/sec	
Bi 209		24417	1269.7456	97.8891	5.0935	%r	5.2034
233.00		6	1.4142				
234.00		8	0.3536				
235.00		115	4.9500				
238.00		34851	1176.8546				
232.00		31073	2090.6633				
236.00		12	4.2427				
U 238		32340	124.7348	1.000E+04	38.6172	ng/l	0.3862
U 238		32210	121.9566	1.000E+04	37.8832	ng/l	0.3788

		Entered Conc.
U 238	]	1.000E+04
U 238	]	1.000E+04
Bi 209	<	
Bi 209		
233.00		
234.00		
235.00		
238.00		
232.00		
236.00		
U 238		1.000E+04
U 238		1.000E+04

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010496

TV = 15 ppb
Cordueña
6/12/03

Data Set:	june03-misc4
Data Set Description:	
Parameter File:	u_tot_in
Sample ID:	icv
Sample Description:	
Sample Type:	Sample
Sequence Number:	164
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	2
Time:	13:19:59 Jun 12 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88
Calibration File:	[Untitled]
Calibration:	External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	43441	1830.8691	0	0.0000
U 238	43308	1834.8770	0	0.0000
Bi 209	23026	1123.8910	0	0.0000
Bi 209	23026	1123.8910	0	0.0000
233.00	12	0.3536	0	0.0000
234.00	7	1.0607	0	0.0000
235.00	114	9.1926	0	0.0000
238.00	47008	303.7245	0	0.0000
232.00	41129	1589.4534	0	0.0000
236.00	5	0.7071	0	0.0000
U 238	43396	289.8972	0	0.0000
U 238	43263	278.9426	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.8866	0.0795	1.423E+04	600.3098	ng/l	4.2181
U 238	1.8809	0.0797	1.424E+04	603.6400	ng/l	4.2384
Bi 209	23026	1123.8910			ions/sec	
Bi 209	23026	1123.8910	92.3080	4.5084	%r	4.8841
233.00	12	0.3536				
234.00	7	1.0607				
235.00	114	9.1926				
238.00	47008	303.7245				
232.00	41129	1589.4534				
236.00	5	0.7071				
U 238	43396	289.8972	1.342E+04	89.7506	ng/l	0.6686
U 238	43263	278.9426	1.343E+04	86.6475	ng/l	0.6450

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010497

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: icb
Sample Description:
Sample Type: Sample
Sequence Number: 165
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:21:56 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	50	2.7430	0	0.0000
U 238	33	0.6514	0	0.0000
Bi 209	23278	39.4046	0	0.0000
Bi 209	23278	39.4046	0	0.0000
233.00	5	1.7678	0	0.0000
234.00	5	2.4749	0	0.0000
235.00	8	2.1213	0	0.0000
238.00	34	2.8284	0	0.0000
232.00	28	0.3534	0	0.0000
236.00	4	0.7071	0	0.0000
U 238	51	2.8285	0	0.0000
U 238	33	0.7071	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.169E-03	1.178E-04	4.4834	0.8896	ng/l	19.8428
U 238 ┘	1.418E-03	2.798E-05	5.4185	0.2120	ng/l	3.9119
Bi 209 <┘	23278	39.4046			ions/sec	
Bi 209	23278	39.4046	93.3197	0.1581	%r	0.1694
233.00	5	1.7678				
234.00	5	2.4749				
235.00	8	2.1213				
238.00	34	2.8284				
232.00	28	0.3534				
236.00	4	0.7071				
U 238	51	2.8285	3.4830	0.8757	ng/l	25.1422
U 238	33	0.7071	4.8148	0.2196	ng/l	4.5620

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010498

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: pbw-f10w1
Sample Description:
Sample Type: Sample
Sequence Number: 166
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:26:53 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	127	6.8239	0	0.0000
U 238	109	6.7571	0	0.0000
Bi 209	24311	88.0569	0	0.0000
Bi 209	24311	88.0569	0	0.0000
233.00	6	2.8284	0	0.0000
234.00	4	0.3535	0	0.0000
235.00	8	3.1820	0	0.0000
238.00	110	0.3559	0	0.0000
232.00	11	0.7071	0	0.0000
236.00	7	4.5962	0	0.0000
U 238	127	6.3639	0	0.0000
U 238	109	6.3641	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	5.224E-03	2.807E-04	27.5484	2.1191	ng/l	7.6923
U 238	]	4.463E-03	2.779E-04	28.4907	2.1054	ng/l	7.3897
Bi 209	<]	24311	88.0569			ions/sec	
Bi 209		24311	88.0569	97.4658	0.3532	%r	0.3624
233.00		6	2.8284				
234.00		4	0.3535				
235.00		8	3.1820				
238.00		110	0.3559				
232.00		11	0.7071				
236.00		7	4.5962				
U 238		127	6.3639	27.1672	1.9702	ng/l	7.2523
U 238		109	6.3641	28.2675	1.9769	ng/l	6.9934

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010499

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: lcsw-f10w1 df10
Sample Description:
Sample Type: Sample
Sequence Number: 167
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:29:26 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	61530	5104.5977	0	0.0000
U 238	61360	5113.7324	0	0.0000
Bi 209	23317	2331.3228	0	0.0000
Bi 209	23317	2331.3228	0	0.0000
233.00	9	3.1820	0	0.0000
234.00	5	2.8284	0	0.0000
235.00	156	20.1531	0	0.0000
238.00	66057	2436.8447	0	0.0000
232.00	59149	3609.5256	0	0.0000
236.00	6	2.4749	0	0.0000
U 238	61275	1047.5420	0	0.0000
U 238	61104	1021.1185	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.6389	0.2189	1.991E+04	1652.8109	ng/l	8.3011
U 238]	2.6316	0.2193	1.993E+04	1661.3175	ng/l	8.3362
Bi 209 <	23317	2331.3228			ions/sec	
Bi 209	23317	2331.3228	93.4757	9.3520	%r	10.0047
233.00	9	3.1820				
234.00	5	2.8284				
235.00	156	20.1531				
238.00	66057	2436.8447				
232.00	59149	3609.5256				
236.00	6	2.4749				
U 238	61275	1047.5420	1.896E+04	324.3134	ng/l	1.7107
U 238	61104	1021.1185	1.898E+04	317.1885	ng/l	1.6716

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010500

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226202 df10
Sample Description:
Sample Type: Sample
Sequence Number: 168
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:31:59 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	222	11.4728	0	0.0000
U 238	202	9.9467	0	0.0000
Bi 209	21345	117.1118	0	0.0000
Bi 209	21345	117.1118	0	0.0000
233.00	7	2.8284	0	0.0000
234.00	7	2.1213	0	0.0000
235.00	7	3.5355	0	0.0000
238.00	232	16.2641	0	0.0000
232.00	20	2.8284	0	0.0000
236.00	8	2.4749	0	0.0000
U 238	222	10.2533	0	0.0000
U 238	202	8.8392	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.0104	5.375E-04	66.7273	4.0579	ng/l	6.0813
U 238	9.453E-03	4.660E-04	66.2886	3.5299	ng/l	5.3251
Bi 209	21345	117.1118			ions/sec	
Bi 209	21345	117.1118	85.5663	0.4698	%r	0.5490
233.00	7	2.8284				
234.00	7	2.1213				
235.00	7	3.5355				
238.00	232	16.2641				
232.00	20	2.8284				
236.00	8	2.4749				
U 238	222	10.2533	56.6569	3.1744	ng/l	5.6028
U 238	202	8.8392	57.2344	2.7457	ng/l	4.7973

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010501

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226202d df10
Sample Description:
Sample Type: Sample
Sequence Number: 169
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:34:33 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	240	5.5761	0	0.0000
U 238	216	3.2909	0	0.0000
Bi 209	21767	345.6813	0	0.0000
Bi 209	21767	345.6813	0	0.0000
233.00	9	1.7678	0	0.0000
234.00	5	3.5355	0	0.0000
235.00	11	3.1820	0	0.0000
238.00	231	15.9106	0	0.0000
232.00	11	1.7678	0	0.0000
236.00	6	0.7071	0	0.0000
U 238	240	1.7667	0	0.0000
U 238	216	6.7183	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	0.0110	2.562E-04	71.2789	1.9340	ng/l	2.7133
U 238 ┘	9.911E-03	1.512E-04	69.7554	1.1453	ng/l	1.6419
Bi 209 <┘	21767	345.6813			ions/sec	
Bi 209	21767	345.6813	87.2575	1.3867	%r	1.5892
233.00	9	1.7678				
234.00	5	3.5355				
235.00	11	3.1820				
238.00	231	15.9106				
232.00	11	1.7678				
236.00	6	0.7071				
U 238	240	1.7667	62.0750	0.5470	ng/l	0.8811
U 238	216	6.7183	61.5834	2.0869	ng/l	3.3887

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010502

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226203 df10
Sample Description:
Sample Type: Sample
Sequence Number: 170
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:37:08 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	1662	46.2150	0	0.0000
U 238	1633	48.8524	0	0.0000
Bi 209	22410	129.9300	0	0.0000
Bi 209	22410	129.9300	0	0.0000
233.00	8	5.6569	0	0.0000
234.00	8	1.7678	0	0.0000
235.00	13	1.4142	0	0.0000
238.00	1737	3.5366	0	0.0000
232.00	10	0.3535	0	0.0000
236.00	9	2.1213	0	0.0000
U 238	1662	55.8762	0	0.0000
U 238	1633	58.3566	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	0.0742	2.062E-03	548.0533	15.5695	ng/l	2.8409
U 238]	0.0729	2.180E-03	546.7836	16.5131	ng/l	3.0200
Bi 209 <]	22410	129.9300			ions/sec	
Bi 209	22410	129.9300	89.8379	0.5212	%r	0.5802
233.00	8	5.6569				
234.00	8	1.7678				
235.00	13	1.4142				
238.00	1737	3.5366				
232.00	10	0.3535				
236.00	9	2.1213				
U 238	1662	55.8762	502.4675	17.2990	ng/l	3.4428
U 238	1633	58.3566	501.9710	18.1272	ng/l	3.6112

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010503

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226203s df20
Sample Description:
Sample Type: Sample
Sequence Number: 171
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:39:43 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

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	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	469900	4.123E+04	0	0.0000
U 238	468465	4.114E+04	0	0.0000
Bi 209	20427	2536.6489	0	0.0000
Bi 209	20427	2536.6489	0	0.0000
233.00	46	2.1213	0	0.0000
234.00	14	4.2427	0	0.0000
235.00	1369	87.3506	0	0.0000
238.00	516001	2.697E+04	0	0.0000
232.00	466196	3.947E+04	0	0.0000
236.00	8	1.0607	0	0.0000
U 238	467340	1.712E+04	0	0.0000
U 238	465911	1.704E+04	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	23.0036	2.0186	1.737E+05	1.524E+04	ng/l	8.7757
U 238	22.9334	2.0138	1.737E+05	1.525E+04	ng/l	8.7814
Bi 209	20427	2536.6489			ions/sec	
Bi 209	20427	2536.6489	81.8845	10.1756	%r	12.4268
233.00	46	2.1213				
234.00	14	4.2427				
235.00	1369	87.3506				
238.00	516001	2.697E+04				
232.00	466196	3.947E+04				
236.00	8	1.0607				
U 238	467340	1.712E+04	1.447E+05	5299.8037	ng/l	3.6633
U 238	465911	1.704E+04	1.447E+05	5292.1880	ng/l	3.6569

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010504

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226204 df10
Sample Description:
Sample Type: Sample
Sequence Number: 172
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:42:18 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	7036	31.9989	0	0.0000
U 238	6997	30.7264	0	0.0000
Bi 209	20416	100.4147	0	0.0000
Bi 209	20416	100.4147	0	0.0000
233.00	7	1.0607	0	0.0000
234.00	4	1.7678	0	0.0000
235.00	28	4.2427	0	0.0000
238.00	7485	264.4524	0	0.0000
232.00	106	34.6489	0	0.0000
236.00	8	2.4749	0	0.0000
U 238	7036	66.5640	0	0.0000
U 238	6997	65.1339	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.3446	1.567E-03	2589.8218	11.8328	ng/l	0.4569
U 238	0.3427	1.505E-03	2590.8320	11.4003	ng/l	0.4400
Bi 209 <	20416	100.4147			ions/sec	
Bi 209	20416	100.4147	81.8411	0.4028	%r	0.4922
233.00	7	1.0607				
234.00	4	1.7678				
235.00	28	4.2427				
238.00	7485	264.4524				
232.00	106	34.6489				
236.00	8	2.4749				
U 238	7036	66.5640	2166.0967	20.6079	ng/l	0.9514
U 238	6997	65.1339	2168.1270	20.2325	ng/l	0.9332

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010505

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226205 df10
Sample Description:
Sample Type: Sample
Sequence Number: 173
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:44:54 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	6986	235.8720	0	0.0000
U 238	6941	232.2815	0	0.0000
Bi 209	20460	11.7087	0	0.0000
Bi 209	20460	11.7087	0	0.0000
233.00	8	0.0000	0	0.0000
234.00	7	2.1213	0	0.0000
235.00	31	1.4142	0	0.0000
238.00	7457	98.1002	0	0.0000
232.00	46	10.2531	0	0.0000
236.00	8	1.0607	0	0.0000
U 238	6985	231.8469	0	0.0000
U 238	6941	228.3354	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.3414	0.0115	2565.7576	87.0361	ng/l	3.3922
U 238	0.3392	0.0114	2564.4946	85.9985	ng/l	3.3534
Bi 209 <	20460	11.7087			ions/sec	
Bi 209	20460	11.7087	82.0162	0.0470	%r	0.0573
233.00	8	0.0000				
234.00	7	2.1213				
235.00	31	1.4142				
238.00	7457	98.1002				
232.00	46	10.2531				
236.00	8	1.0607				
U 238	6985	231.8469	2150.5188	71.7786	ng/l	3.3377
U 238	6941	228.3354	2150.6333	70.9275	ng/l	3.2980

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010506

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226206 df20
Sample Description:
Sample Type: Sample
Sequence Number: 174
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:47:31 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

Ordiña 6/12/03

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	28047	595.3992	0	0.0000
U 238	27961	599.7366	0	0.0000
Bi 209	21714	492.2540	0	0.0000
Bi 209	21714	492.2540	0	0.0000
233.00	7	0.0000	0	0.0000
234.00	7	0.3536	0	0.0000
235.00	73	6.7176	0	0.0000
238.00	30312	676.1382	0	0.0000
232.00	30	0.7072	0	0.0000
236.00	6	1.4142	0	0.0000
U 238	28040	39.7688	0	0.0000
U 238	27954	32.4681	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.2916	0.0274	9739.5752	207.0114	ng/l	2.1255
U 238	1.2877	0.0276	9748.8457	209.2183	ng/l	2.1461
Bi 209	21714	492.2540			ions/sec	
Bi 209	21714	492.2540	87.0472	1.9747	%r	2.2685
233.00	7	0.0000				
234.00	7	0.3536				
235.00	73	6.7176				
238.00	30312	676.1382				
232.00	30	0.7072				
236.00	6	1.4142				
U 238	28040	39.7688	8668.9141	12.3122	ng/l	0.1420
U 238	27954	32.4681	8677.9043	10.0855	ng/l	0.1162

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010507

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226207 df50
Sample Description:
Sample Type: Sample
Sequence Number: 175
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:50:08 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	63831	2470.3965	0	0.0000
U 238	63646	2459.2429	0	0.0000
Bi 209	21653	1077.4816	0	0.0000
Bi 209	21653	1077.4816	0	0.0000
233.00	4	1.4142	0	0.0000
234.00	8	0.7071	0	0.0000
235.00	174	2.8285	0	0.0000
238.00	70920	2087.7439	0	0.0000
232.00	18	1.0607	0	0.0000
236.00	6	0.3536	0	0.0000
U 238	63769	705.5449	0	0.0000
U 238	63584	707.8912	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.9479	0.1141	2.224E+04	861.3374	ng/l	3.8723
U 238 ┘	2.9393	0.1136	2.226E+04	860.3220	ng/l	3.8649
Bi 209 <┘	21653	1077.4816			ions/sec	
Bi 209	21653	1077.4816	86.8027	4.3223	%r	4.9794
233.00	4	1.4142				
234.00	8	0.7071				
235.00	174	2.8285				
238.00	70920	2087.7439				
232.00	18	1.0607				
236.00	6	0.3536				
U 238	63769	705.5449	1.973E+04	218.4329	ng/l	1.1071
U 238	63584	707.8912	1.975E+04	219.8912	ng/l	1.1136

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010508

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226208 df10
Sample Description:
Sample Type: Sample
Sequence Number: 176
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:52:45 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	137713	3504.6599	0	0.0000
U 238	137326	3508.9600	0	0.0000
Bi 209	19538	1267.9187	0	0.0000
Bi 209	19538	1267.9187	0	0.0000
233.00	8	1.4142	0	0.0000
234.00	9	0.3536	0	0.0000
235.00	371	27.5790	0	0.0000
238.00	151851	4546.8711	0	0.0000
232.00	15	1.4142	0	0.0000
236.00	6	0.0000	0	0.0000
U 238	137599	5433.1094	0	0.0000
U 238	137213	5403.1475	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	7.0486	0.1794	5.320E+04	1354.2659	ng/l	2.5455
U 238	]	7.0288	0.1796	5.324E+04	1360.4714	ng/l	2.5555
Bi 209	<]	19538	1267.9187			ions/sec	
Bi 209		19538	1267.9187	78.3160	5.0862	%r	6.4945
233.00		8	1.4142				
234.00		9	0.3536				
235.00		371	27.5790				
238.00		151851	4546.8711				
232.00		15	1.4142				
236.00		6	0.0000				
U 238		137599	5433.1094	4.259E+04	1682.0618	ng/l	3.9496
U 238		137213	5403.1475	4.262E+04	1678.3717	ng/l	3.9383

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010509

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 177
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:55:22 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	39298	1873.8073	0	0.0000
U 238	39189	1869.3531	0	0.0000
Bi 209	21678	1390.8971	0	0.0000
Bi 209	21678	1390.8971	0	0.0000
233.00	7	1.0607	0	0.0000
234.00	4	0.0000	0	0.0000
235.00	98	1.4137	0	0.0000
238.00	42946	456.6860	0	0.0000
232.00	37484	1916.8229	0	0.0000
236.00	7	0.7071	0	0.0000
U 238	39238	647.6351	0	0.0000
U 238	39129	645.0582	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.8128	0.0864	1.367E+04	652.5787	ng/l	4.7723
U 238	1.8078	0.0862	1.369E+04	653.2092	ng/l	4.7719
Bi 209	21678	1390.8971			ions/sec	
Bi 209	21678	1390.8971	86.9025	5.5795	%r	6.4204
233.00	7	1.0607				
234.00	4	0.0000				
235.00	98	1.4137				
238.00	42946	456.6860				
232.00	37484	1916.8229				
236.00	7	0.7071				
U 238	39238	647.6351	1.214E+04	200.5044	ng/l	1.6522
U 238	39129	645.0582	1.215E+04	200.3735	ng/l	1.6493

010510

QUANTITATIVE ANALYSIS: SUMMARY REPORT

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 178
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 13:57:57 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	63	12.7982	0	0.0000
U 238	38	8.0349	0	0.0000
Bi 209	22403	151.4981	0	0.0000
Bi 209	22403	151.4981	0	0.0000
233.00	8	1.4142	0	0.0000
234.00	8	1.7678	0	0.0000
235.00	9	1.4142	0	0.0000
238.00	33	7.0711	0	0.0000
232.00	22	1.0606	0	0.0000
236.00	5	1.4142	0	0.0000
U 238	63	12.3744	0	0.0000
U 238	38	7.7782	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.803E-03	5.713E-04	9.2669	4.3130	ng/l	46.5422
U 238	1.697E-03	3.587E-04	7.5381	2.7168	ng/l	36.0415
Bi 209	22403	151.4981			ions/sec	
Bi 209	22403	151.4981	89.8087	0.6077	%r	0.6767
233.00	8	1.4142				
234.00	8	1.7678				
235.00	9	1.4142				
238.00	33	7.0711				
232.00	22	1.0606				
236.00	5	1.4142				
U 238	63	12.3744	7.2755	3.8311	ng/l	52.6569
U 238	38	7.7782	6.3679	2.4161	ng/l	37.9424

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010511

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226209 df100
Sample Description:
Sample Type: Sample
Sequence Number: 179
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:00:33 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	32387	509.1150	0	0.0000
U 238	32288	495.9090	0	0.0000
Bi 209	21780	662.6171	0	0.0000
Bi 209	21780	662.6171	0	0.0000
233.00	7	2.8284	0	0.0000
234.00	7	0.3536	0	0.0000
235.00	86	7.7783	0	0.0000
238.00	35678	831.8062	0	0.0000
232.00	13	3.1820	0	0.0000
236.00	5	0.3536	0	0.0000
U 238	32379	476.2483	0	0.0000
U 238	32280	486.4121	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.4870	0.0234	1.121E+04	176.4772	ng/l	1.5736
U 238	1.4825	0.0228	1.122E+04	172.4757	ng/l	1.5366
Bi 209	21780	662.6171			ions/sec	
Bi 209	21780	662.6171	87.3110	2.6581	%r	3.0444
233.00	7	2.8284				
234.00	7	0.3536				
235.00	86	7.7783				
238.00	35678	831.8062				
232.00	13	3.1820				
236.00	5	0.3536				
U 238	32379	476.2483	1.001E+04	147.4439	ng/l	1.4726
U 238	32280	486.4121	1.002E+04	151.0935	ng/l	1.5076

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010512

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226210 df20
Sample Description:
Sample Type: Sample
Sequence Number: 180
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:03:11 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	63519	1163.7517	0	0.0000
U 238	63346	1170.2070	0	0.0000
Bi 209	20391	1081.1470	0	0.0000
Bi 209	20391	1081.1470	0	0.0000
233.00	6	0.3536	0	0.0000
234.00	6	2.4749	0	0.0000
235.00	161	18.7389	0	0.0000
238.00	69551	2302.8164	0	0.0000
232.00	10	4.5962	0	0.0000
236.00	5	0.7071	0	0.0000
U 238	63488	2204.2139	0	0.0000
U 238	63315	2188.3958	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	3.1151	0.0571	2.351E+04	430.8786	ng/l	1.8331
U 238]	3.1066	0.0574	2.353E+04	434.7207	ng/l	1.8477
Bi 209 <	20391	1081.1470			ions/sec	
Bi 209	20391	1081.1470	81.7386	4.3370	%r	5.3059
233.00	6	0.3536				
234.00	6	2.4749				
235.00	161	18.7389				
238.00	69551	2302.8164				
232.00	10	4.5962				
236.00	5	0.7071				
U 238	63488	2204.2139	1.964E+04	682.4129	ng/l	3.4740
U 238	63315	2188.3958	1.966E+04	679.7781	ng/l	3.4573

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010513

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226211 df50
Sample Description:
Sample Type: Sample
Sequence Number: 181
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:05:50 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	51011	1284.7924	0	0.0000
U 238	50867	1270.9343	0	0.0000
Bi 209	21089	1137.3481	0	0.0000
Bi 209	21089	1137.3481	0	0.0000
233.00	6	1.0607	0	0.0000
234.00	8	2.8284	0	0.0000
235.00	129	2.4757	0	0.0000
238.00	56461	96.9253	0	0.0000
232.00	11	1.0607	0	0.0000
236.00	8	0.3536	0	0.0000
U 238	50976	1466.2944	0	0.0000
U 238	50832	1472.5554	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.4188	0.0609	1.825E+04	459.9482	ng/l	2.5203
U 238	2.4120	0.0603	1.827E+04	456.5119	ng/l	2.4993
Bi 209	21089	1137.3481			ions/sec	
Bi 209	21089	1137.3481	84.5388	4.5624	%r	5.3968
233.00	6	1.0607				
234.00	8	2.8284				
235.00	129	2.4757				
238.00	56461	96.9253				
232.00	11	1.0607				
236.00	8	0.3536				
U 238	50976	1466.2944	1.577E+04	453.9570	ng/l	2.8787
U 238	50832	1472.5554	1.578E+04	457.4177	ng/l	2.8979

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010514

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226212 df20
Sample Description:
Sample Type: Sample
Sequence Number: 182
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:08:29 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	58232	1877.3552	0	0.0000
U 238	58071	1865.5359	0	0.0000
Bi 209	20214	1122.5922	0	0.0000
Bi 209	20214	1122.5922	0	0.0000
233.00	7	1.7678	0	0.0000
234.00	6	0.3535	0	0.0000
235.00	148	0.7039	0	0.0000
238.00	63965	1062.9803	0	0.0000
232.00	9	3.5355	0	0.0000
236.00	6	2.8284	0	0.0000
U 238	58180	1356.5680	0	0.0000
U 238	58019	1359.5657	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	2.8808	0.0929	2.174E+04	701.1721	ng/l	3.2257
U 238	]	2.8728	0.0923	2.176E+04	699.0927	ng/l	3.2133
Bi 209	<]	20214	1122.5922			ions/sec	
Bi 209		20214	1122.5922	81.0291	4.5032	%r	5.5575
233.00		7	1.7678				
234.00		6	0.3535				
235.00		148	0.7039				
238.00		63965	1062.9803				
232.00		9	3.5355				
236.00		6	2.8284				
U 238		58180	1356.5680	1.800E+04	419.9862	ng/l	2.3333
U 238		58019	1359.5657	1.802E+04	422.3199	ng/l	2.3440

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010515

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226213 df50
Sample Description:
Sample Type: Sample
Sequence Number: 183
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:11:05 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	55945	2125.6287	0	0.0000
U 238	55783	2117.3167	0	0.0000
Bi 209	20946	1177.0648	0	0.0000
Bi 209	20946	1177.0648	0	0.0000
233.00	9	1.0607	0	0.0000
234.00	6	0.3535	0	0.0000
235.00	146	1.4143	0	0.0000
238.00	61172	1250.7946	0	0.0000
232.00	12	2.4749	0	0.0000
236.00	7	1.0607	0	0.0000
U 238	55885	1018.4449	0	0.0000
U 238	55724	1017.5322	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.6709	0.1015	2.015E+04	766.1589	ng/l	3.8018
U 238]	2.6632	0.1011	2.017E+04	765.7204	ng/l	3.7966
Bi 209 <	20946	1177.0648			ions/sec	
Bi 209	20946	1177.0648	83.9651	4.7217	%r	5.6235
233.00	9	1.0607				
234.00	6	0.3535				
235.00	146	1.4143				
238.00	61172	1250.7946				
232.00	12	2.4749				
236.00	7	1.0607				
U 238	55885	1018.4449	1.729E+04	315.3051	ng/l	1.8237
U 238	55724	1017.5322	1.730E+04	316.0745	ng/l	1.8266

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010516

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226214 df50
Sample Description:
Sample Type: Sample
Sequence Number: 184
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:13:38 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	65274	2702.5361	0	0.0000
U 238	65098	2705.6353	0	0.0000
Bi 209	20586	1123.7639	0	0.0000
Bi 209	20586	1123.7639	0	0.0000
233.00	6	1.4142	0	0.0000
234.00	6	0.7071	0	0.0000
235.00	164	10.6067	0	0.0000
238.00	72031	2925.8191	0	0.0000
232.00	11	3.5355	0	0.0000
236.00	6	0.0000	0	0.0000
U 238	65200	860.9870	0	0.0000
U 238	65024	847.8984	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	3.1708	0.1313	2.393E+04	991.1246	ng/l	4.1424
U 238	3.1622	0.1314	2.395E+04	995.5865	ng/l	4.1572
Bi 209 <	20586	1123.7639			ions/sec	
Bi 209	20586	1123.7639	82.5217	4.5079	%r	5.4627
233.00	6	1.4142				
234.00	6	0.7071				
235.00	164	10.6067				
238.00	72031	2925.8191				
232.00	11	3.5355				
236.00	6	0.0000				
U 238	65200	860.9870	2.017E+04	266.5570	ng/l	1.3213
U 238	65024	847.8984	2.019E+04	263.3814	ng/l	1.3043

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010517

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226215 df500
Sample Description:
Sample Type: Sample
Sequence Number: 185
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:16:11 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	42143	1316.3778	0	0.0000
U 238	42030	1310.8989	0	0.0000
Bi 209	21928	1109.4781	0	0.0000
Bi 209	21928	1109.4781	0	0.0000
233.00	6	1.7678	0	0.0000
234.00	7	1.4142	0	0.0000
235.00	100	3.5354	0	0.0000
238.00	47120	750.7706	0	0.0000
232.00	8	1.4142	0	0.0000
236.00	9	3.1820	0	0.0000
U 238	42109	816.0764	0	0.0000
U 238	41997	815.6311	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.9219	0.0600	1.450E+04	453.2263	ng/l	3.1262
U 238	1.9168	0.0598	1.451E+04	452.8525	ng/l	3.1201
Bi 209	21928	1109.4781			ions/sec	
Bi 209	21928	1109.4781	87.9041	4.4506	%r	5.0630
233.00	6	1.7678				
234.00	7	1.4142				
235.00	100	3.5354				
238.00	47120	750.7706				
232.00	8	1.4142				
236.00	9	3.1820				
U 238	42109	816.0764	1.302E+04	252.6529	ng/l	1.9398
U 238	41997	815.6311	1.304E+04	253.3583	ng/l	1.9429

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010518

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226216 df10
Sample Description:
Sample Type: Sample
Sequence Number: 186
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:18:44 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	69730	190.4344	0	0.0000
U 238	69544	175.1807	0	0.0000
Bi 209	19044	430.2115	0	0.0000
Bi 209	19044	430.2115	0	0.0000
233.00	6	2.8284	0	0.0000
234.00	8	2.8284	0	0.0000
235.00	173	18.7388	0	0.0000
238.00	78396	2719.9084	0	0.0000
232.00	9	2.8284	0	0.0000
236.00	6	1.4142	0	0.0000
U 238	69732	1764.3977	0	0.0000
U 238	69546	1745.4489	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	3.6615	1.000E-02	2.763E+04	75.4942	ng/l	0.2732
U 238	3.6518	9.199E-03	2.766E+04	69.6799	ng/l	0.2519
Bi 209	19044	430.2115			ions/sec	
Bi 209	19044	430.2115	76.3364	1.7258	%r	2.2607
233.00	6	2.8284				
234.00	8	2.8284				
235.00	173	18.7388				
238.00	78396	2719.9084				
232.00	9	2.8284				
236.00	6	1.4142				
U 238	69732	1764.3977	2.158E+04	546.2482	ng/l	2.5317
U 238	69546	1745.4489	2.160E+04	542.1862	ng/l	2.5104

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010519

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226217 df100
Sample Description:
Sample Type: Sample
Sequence Number: 187
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:21:18 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	62853	1324.3077	0	0.0000
U 238	62676	1323.8279	0	0.0000
Bi 209	21373	1215.1600	0	0.0000
Bi 209	21373	1215.1600	0	0.0000
233.00	5	0.7071	0	0.0000
234.00	6	1.4142	0	0.0000
235.00	166	7.4245	0	0.0000
238.00	67964	904.9908	0	0.0000
232.00	6	2.8284	0	0.0000
236.00	6	1.4142	0	0.0000
U 238	62816	2249.0715	0	0.0000
U 238	62639	2239.6077	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	2.9408	0.0620	2.219E+04	467.7879	ng/l	2.1081
U 238	]	2.9325	0.0619	2.221E+04	469.1855	ng/l	2.1127
Bi 209	<	21373	1215.1600			ions/sec	
Bi 209		21373	1215.1600	85.6793	4.8746	%r	5.6893
233.00		5	0.7071				
234.00		6	1.4142				
235.00		166	7.4245				
238.00		67964	904.9908				
232.00		6	2.8284				
236.00		6	1.4142				
U 238		62816	2249.0715	1.944E+04	696.3006	ng/l	3.5827
U 238		62639	2239.6077	1.945E+04	695.6860	ng/l	3.5764

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010520

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226218 df50
Sample Description:
Sample Type: Sample
Sequence Number: 188
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:23:52 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	56381	852.3589	0	0.0000
U 238	56229	853.5922	0	0.0000
Bi 209	20818	844.8492	0	0.0000
Bi 209	20818	844.8492	0	0.0000
233.00	6	1.7678	0	0.0000
234.00	6	1.4142	0	0.0000
235.00	139	7.4248	0	0.0000
238.00	62455	856.8090	0	0.0000
232.00	11	1.0607	0	0.0000
236.00	8	0.0000	0	0.0000
U 238	56363	1436.1527	0	0.0000
U 238	56212	1428.2397	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	2.7082	0.0409	2.043E+04	309.1047	ng/l	1.5127
U 238	]	2.7009	0.0410	2.045E+04	310.5893	ng/l	1.5185
Bi 209	<	20818	844.8492			ions/sec	
Bi 209		20818	844.8492	83.4536	3.3891	%r	4.0610
233.00		6	1.7678				
234.00		6	1.4142				
235.00		139	7.4248				
238.00		62455	856.8090				
232.00		11	1.0607				
236.00		8	0.0000				
U 238		56363	1436.1527	1.744E+04	444.6252	ng/l	2.5498
U 238		56212	1428.2397	1.746E+04	443.6520	ng/l	2.5416

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010521

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 189
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:26:27 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	39446	1142.8669	0	0.0000
U 238	39330	1136.6024	0	0.0000
Bi 209	21784	999.4264	0	0.0000
Bi 209	21784	999.4264	0	0.0000
233.00	8	3.1820	0	0.0000
234.00	8	3.8891	0	0.0000
235.00	100	0.3536	0	0.0000
238.00	43807	781.3309	0	0.0000
232.00	37311	1539.5316	0	0.0000
236.00	9	1.4142	0	0.0000
U 238	39420	666.9077	0	0.0000
U 238	39304	667.8624	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.8108	0.0525	1.366E+04	396.0800	ng/l	2.8998
U 238	1.8054	0.0522	1.367E+04	395.2290	ng/l	2.8910
Bi 209	21784	999.4264			ions/sec	
Bi 209	21784	999.4264	87.3282	4.0091	%r	4.5909
233.00	8	3.1820				
234.00	8	3.8891				
235.00	100	0.3536				
238.00	43807	781.3309				
232.00	37311	1539.5316				
236.00	9	1.4142				
U 238	39420	666.9077	1.219E+04	206.4711	ng/l	1.6935
U 238	39304	667.8624	1.220E+04	207.4571	ng/l	1.7000

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010522

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 190
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:29:02 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	45	5.8425	0	0.0000
U 238	32	7.5571	0	0.0000
Bi 209	22302	92.5246	0	0.0000
Bi 209	22302	92.5246	0	0.0000
233.00	4	0.3536	0	0.0000
234.00	5	0.0000	0	0.0000
235.00	5	1.4142	0	0.0000
238.00	32	0.3536	0	0.0000
232.00	17	0.3535	0	0.0000
236.00	3	0.7071	0	0.0000
U 238	45	5.6569	0	0.0000
U 238	32	7.4247	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	1.996E-03	2.620E-04	3.1740	1.9778	ng/l	62.3128
U 238 ┘	1.424E-03	3.389E-04	5.4695	2.5669	ng/l	46.9302
Bi 209 <┘	22302	92.5246			ions/sec	
Bi 209	22302	92.5246	89.4039	0.3712	%r	0.4151
233.00	4	0.3536				
234.00	5	0.0000				
235.00	5	1.4142				
238.00	32	0.3536				
232.00	17	0.3535				
236.00	3	0.7071				
U 238	45	5.6569	1.6254	1.7513	ng/l	107.7485
U 238	32	7.4247	4.4265	2.3063	ng/l	52.1027

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010523

Data Set:	june03-misc4
Data Set Description:	
Parameter File:	u_tot_in
Sample ID:	226219 df50
Sample Description:	
Sample Type:	Sample
Sequence Number:	191
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	2
Time:	14:31:37 Jun 12 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88
Calibration File:	[Untitled]
Calibration:	External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	57527	2765.9717	0	0.0000
U 238	57369	2778.9075	0	0.0000
Bi 209	21204	1010.2861	0	0.0000
Bi 209	21204	1010.2861	0	0.0000
233.00	4	2.1213	0	0.0000
234.00	7	2.8284	0	0.0000
235.00	148	15.5568	0	0.0000
238.00	63059	2059.4871	0	0.0000
232.00	15	0.0000	0	0.0000
236.00	8	0.3536	0	0.0000
U 238	57461	12.8948	0	0.0000
U 238	57303	45.3543	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.7130	0.1304	2.047E+04	984.8121	ng/l	4.8109
U 238]	2.7056	0.1311	2.049E+04	992.7336	ng/l	4.8451
Bi 209 <]	21204	1010.2861			ions/sec	
Bi 209	21204	1010.2861	85.0018	4.0527	%r	4.7678
233.00	4	2.1213				
234.00	7	2.8284				
235.00	148	15.5568				
238.00	63059	2059.4871				
232.00	15	0.0000				
236.00	8	0.3536				
U 238	57461	12.8948	1.778E+04	3.9922	ng/l	0.0225
U 238	57303	45.3543	1.779E+04	14.0883	ng/l	0.0792

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010524

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226220 df100
Sample Description:
Sample Type: Sample
Sequence Number: 192
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:34:12 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	40256	296.0186	0	0.0000
U 238	40144	300.7965	0	0.0000
Bi 209	21540	357.3789	0	0.0000
Bi 209	21540	357.3789	0	0.0000
233.00	7	2.4749	0	0.0000
234.00	6	0.3535	0	0.0000
235.00	99	0.3514	0	0.0000
238.00	44388	852.6769	0	0.0000
232.00	9	3.1820	0	0.0000
236.00	6	1.7678	0	0.0000
U 238	40259	964.2904	0	0.0000
U 238	40147	966.6923	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.8690	0.0137	1.410E+04	103.7559	ng/l	0.7360
U 238	1.8637	0.0140	1.411E+04	105.7839	ng/l	0.7496
Bi 209	21540	357.3789			ions/sec	
Bi 209	21540	357.3789	86.3465	1.4336	%r	1.6603
233.00	7	2.4749				
234.00	6	0.3535				
235.00	99	0.3514				
238.00	44388	852.6769				
232.00	9	3.1820				
236.00	6	1.7678				
U 238	40259	964.2904	1.245E+04	298.5392	ng/l	2.3976
U 238	40147	966.6923	1.247E+04	300.2822	ng/l	2.4090

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010525

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226221 df100
Sample Description:
Sample Type: Sample
Sequence Number: 193
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:36:48 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	44079	722.2794	0	0.0000
U 238	43956	728.3681	0	0.0000
Bi 209	21234	451.4020	0	0.0000
Bi 209	21234	451.4020	0	0.0000
233.00	5	0.7071	0	0.0000
234.00	7	1.7678	0	0.0000
235.00	112	10.2533	0	0.0000
238.00	47266	1794.9795	0	0.0000
232.00	10	1.7678	0	0.0000
236.00	7	1.7678	0	0.0000
U 238	44072	214.7879	0	0.0000
U 238	43948	205.1013	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.0759	0.0340	1.566E+04	256.8032	ng/l	1.6398
U 238]	2.0700	0.0343	1.568E+04	259.8359	ng/l	1.6576
Bi 209 <]	21234	451.4020			ions/sec	
Bi 209	21234	451.4020	85.1214	1.8108	%r	2.1273
233.00	5	0.7071				
234.00	7	1.7678				
235.00	112	10.2533				
238.00	47266	1794.9795				
232.00	10	1.7678				
236.00	7	1.7678				
U 238	44072	214.7879	1.363E+04	66.4972	ng/l	0.4878
U 238	43948	205.1013	1.365E+04	63.7103	ng/l	0.4669

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010526

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: pbw-f10w2
Sample Description:
Sample Type: Sample
Sequence Number: 194
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:39:24 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	142	5.7805	0	0.0000
U 238	124	7.9298	0	0.0000
Bi 209	21621	35.1344	0	0.0000
Bi 209	21621	35.1344	0	0.0000
233.00	7	1.0607	0	0.0000
234.00	6	0.0000	0	0.0000
235.00	5	1.0607	0	0.0000
238.00	123	12.3746	0	0.0000
232.00	6	0.3536	0	0.0000
236.00	6	0.3535	0	0.0000
U 238	142	6.0103	0	0.0000
U 238	124	8.1319	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	6.556E-03	2.674E-04	37.6003	2.0184	ng/l	5.3681
U 238	5.746E-03	3.668E-04	38.2090	2.7782	ng/l	7.2711
Bi 209	21621	35.1344			ions/sec	
Bi 209	21621	35.1344	86.6746	0.1409	%r	0.1626
233.00	7	1.0607				
234.00	6	0.0000				
235.00	5	1.0607				
238.00	123	12.3746				
232.00	6	0.3536				
236.00	6	0.3535				
U 238	142	6.0103	31.7339	1.8608	ng/l	5.8636
U 238	124	8.1319	33.1600	2.5260	ng/l	7.6176

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010527

Cordueña
6/12/03

Data Set:	june03-misc4
Data Set Description:	
Parameter File:	u_tot_in
Sample ID:	lcsw-f10w2 df10
Sample Description:	
Sample Type:	Sample
Sequence Number:	195
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	2
Time:	14:42:01 Jun 12 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88
Calibration File:	[Untitled]
Calibration:	External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	54363	2668.5017	0	0.0000
U 238	54204	2666.8333	0	0.0000
Bi 209	42819	2733.2991	0	0.0000
Bi 209	42819	2733.2991	0	0.0000
233.00	10	1.4142	0	0.0000
234.00	8	3.8891	0	0.0000
235.00	142	3.1821	0	0.0000
238.00	59089	1015.1439	0	0.0000
232.00	52026	2796.5098	0	0.0000
236.00	7	0.7071	0	0.0000
U 238	54278	801.5573	0	0.0000
U 238	54119	793.3613	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.2696	0.0623	9573.0762	470.4973	ng/l	4.9148
U 238	1.2659	0.0623	9583.6338	471.7789	ng/l	4.9228
Bi 209	42819	2733.2991			ions/sec	
Bi 209	42819	2733.2991	171.7094	10.9645	%r	6.3855
233.00	10	1.4142				
234.00	8	3.8891				
235.00	142	3.1821				
238.00	59089	1015.1439				
232.00	52026	2796.5098				
236.00	7	0.7071				
U 238	54278	801.5573	1.679E+04	248.1579	ng/l	1.4778
U 238	54119	793.3613	1.681E+04	246.4407	ng/l	1.4664

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010528

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226222 df100
Sample Description:
Sample Type: Sample
Sequence Number: 196
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:44:38 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	35214	1131.9330	0	0.0000
U 238	35121	1128.1050	0	0.0000
Bi 209	21397	698.7706	0	0.0000
Bi 209	21397	698.7706	0	0.0000
233.00	6	0.3535	0	0.0000
234.00	6	1.0607	0	0.0000
235.00	81	0.7071	0	0.0000
238.00	38156	669.9960	0	0.0000
232.00	21	7.0711	0	0.0000
236.00	5	0.3535	0	0.0000
U 238	35196	20.2952	0	0.0000
U 238	35103	18.8543	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	1.6458	0.0529	1.241E+04	399.3903	ng/l	3.2175
U 238 ┘	1.6414	0.0527	1.243E+04	399.3735	ng/l	3.2134
Bi 209 <┘	21397	698.7706			ions/sec	
Bi 209	21397	698.7706	85.7748	2.8031	%r	3.2680
233.00	6	0.3535				
234.00	6	1.0607				
235.00	81	0.7071				
238.00	38156	669.9960				
232.00	21	7.0711				
236.00	5	0.3535				
U 238	35196	20.2952	1.088E+04	6.2833	ng/l	0.0577
U 238	35103	18.8543	1.090E+04	5.8567	ng/l	0.0537

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010529

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226223 df100
Sample Description:
Sample Type: Sample
Sequence Number: 197
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:47:16 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	53318	1717.5464	0	0.0000
U 238	53170	1699.5878	0	0.0000
Bi 209	21081	1238.8054	0	0.0000
Bi 209	21081	1238.8054	0	0.0000
233.00	5	0.7071	0	0.0000
234.00	7	1.7678	0	0.0000
235.00	135	10.2531	0	0.0000
238.00	59373	2235.9695	0	0.0000
232.00	14	2.8284	0	0.0000
236.00	7	0.7071	0	0.0000
U 238	53267	1415.8983	0	0.0000
U 238	53120	1424.9694	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.5292	0.0815	1.908E+04	615.0909	ng/l	3.2233
U 238	2.5221	0.0806	1.910E+04	610.6993	ng/l	3.1974
Bi 209	21081	1238.8054			ions/sec	
Bi 209	21081	1238.8054	84.5086	4.9694	%r	5.8804
233.00	5	0.7071				
234.00	7	1.7678				
235.00	135	10.2531				
238.00	59373	2235.9695				
232.00	14	2.8284				
236.00	7	0.7071				
U 238	53267	1415.8983	1.648E+04	438.3546	ng/l	2.6601
U 238	53120	1424.9694	1.650E+04	442.6361	ng/l	2.6834

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010530

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226224 df100
Sample Description:
Sample Type: Sample
Sequence Number: 198
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:49:54 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	50656	1309.9941	0	0.0000
U 238	50508	1306.0068	0	0.0000
Bi 209	21230	1144.1182	0	0.0000
Bi 209	21230	1144.1182	0	0.0000
233.00	7	2.4749	0	0.0000
234.00	6	1.7678	0	0.0000
235.00	135	3.5356	0	0.0000
238.00	55640	1200.8511	0	0.0000
232.00	11	1.7678	0	0.0000
236.00	6	1.0607	0	0.0000
U 238	50621	1419.9637	0	0.0000
U 238	50473	1415.6073	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.3860	0.0617	1.800E+04	465.8496	ng/l	2.5878
U 238 ┘	2.3791	0.0615	1.802E+04	465.9881	ng/l	2.5865
Bi 209 <┘	21230	1144.1182			ions/sec	
Bi 209	21230	1144.1182	85.1055	4.5896	%r	5.3928
233.00	7	2.4749				
234.00	6	1.7678				
235.00	135	3.5356				
238.00	55640	1200.8511				
232.00	11	1.7678				
236.00	6	1.0607				
U 238	50621	1419.9637	1.566E+04	439.6132	ng/l	2.8073
U 238	50473	1415.6073	1.567E+04	439.7280	ng/l	2.8057

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010531

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226225 df200
Sample Description:
Sample Type: Sample
Sequence Number: 199
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:52:33 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	45023	2036.0249	0	0.0000
U 238	44903	2042.4086	0	0.0000
Bi 209	21803	1149.8746	0	0.0000
Bi 209	21803	1149.8746	0	0.0000
233.00	4	0.7071	0	0.0000
234.00	5	1.7678	0	0.0000
235.00	111	10.2532	0	0.0000
238.00	50188	815.8521	0	0.0000
232.00	9	2.8284	0	0.0000
236.00	5	1.0607	0	0.0000
U 238	44969	338.2037	0	0.0000
U 238	44849	325.1644	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	2.0650	0.0934	1.558E+04	705.0014	ng/l	4.5256
U 238	]	2.0595	0.0937	1.560E+04	709.5818	ng/l	4.5500
Bi 209	<	21803	1149.8746			ions/sec	
Bi 209		21803	1149.8746	87.4047	4.6127	%r	5.2774
233.00		4	0.7071				
234.00		5	1.7678				
235.00		111	10.2532				
238.00		50188	815.8521				
232.00		9	2.8284				
236.00		5	1.0607				
U 238		44969	338.2037	1.391E+04	104.7061	ng/l	0.7527
U 238		44849	325.1644	1.393E+04	101.0053	ng/l	0.7253

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010532

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226226 df100
Sample Description:
Sample Type: Sample
Sequence Number: 200
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:55:12 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	55831	2129.7507	0	0.0000
U 238	55570	2115.8955	0	0.0000
Bi 209	21413	1014.2673	0	0.0000
Bi 209	21413	1014.2673	0	0.0000
233.00	6	2.4749	0	0.0000
234.00	10	0.7071	0	0.0000
235.00	245	3.1821	0	0.0000
238.00	60668	1164.5662	0	0.0000
232.00	11	0.0000	0	0.0000
236.00	11	1.7678	0	0.0000
U 238	55780	514.7118	0	0.0000
U 238	55519	515.8257	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	2.6074	0.0995	1.967E+04	750.9038	ng/l	3.8170
U 238	]	2.5952	0.0988	1.965E+04	748.5189	ng/l	3.8087
Bi 209	<	21413	1014.2673			ions/sec	
Bi 209		21413	1014.2673	85.8383	4.0687	%r	4.7399
233.00		6	2.4749				
234.00		10	0.7071				
235.00		245	3.1821				
238.00		60668	1164.5662				
232.00		11	0.0000				
236.00		11	1.7678				
U 238		55780	514.7118	1.726E+04	159.3520	ng/l	0.9234
U 238		55519	515.8257	1.724E+04	160.2302	ng/l	0.9294

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010533

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 201
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 14:57:49 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	39775	1540.6901	0	0.0000
U 238	39652	1554.7592	0	0.0000
Bi 209	22004	1025.4172	0	0.0000
Bi 209	22004	1025.4172	0	0.0000
233.00	10	1.4142	0	0.0000
234.00	6	0.3536	0	0.0000
235.00	107	18.0316	0	0.0000
238.00	43366	696.4836	0	0.0000
232.00	38133	1702.4148	0	0.0000
236.00	7	1.4142	0	0.0000
U 238	39739	313.0703	0	0.0000
U 238	39616	293.0074	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.8076	0.0700	1.364E+04	528.6236	ng/l	3.8769
U 238	1.8021	0.0707	1.365E+04	535.2386	ng/l	3.9225
Bi 209	22004	1025.4172			ions/sec	
Bi 209	22004	1025.4172	88.2091	4.1134	%r	4.6633
233.00	10	1.4142				
234.00	6	0.3536				
235.00	107	18.0316				
238.00	43366	696.4836				
232.00	38133	1702.4148				
236.00	7	1.4142				
U 238	39739	313.0703	1.229E+04	96.9249	ng/l	0.7886
U 238	39616	293.0074	1.230E+04	91.0165	ng/l	0.7399

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010534

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 202
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:00:24 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	46	4.1291	0	0.0000
U 238	26	2.5389	0	0.0000
Bi 209	22544	55.8122	0	0.0000
Bi 209	22544	55.8122	0	0.0000
233.00	8	1.4142	0	0.0000
234.00	5	0.3536	0	0.0000
235.00	8	4.9498	0	0.0000
238.00	32	1.0607	0	0.0000
232.00	19	2.8284	0	0.0000
236.00	6	0.7071	0	0.0000
U 238	47	4.2426	0	0.0000
U 238	26	2.4749	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.062E-03	1.832E-04	3.6758	1.3828	ng/l	37.6182
U 238 ┘	1.165E-03	1.126E-04	3.5011	0.8531	ng/l	24.3664
Bi 209 <┘	22544	55.8122			ions/sec	
Bi 209	22544	55.8122	90.3775	0.2239	%r	0.2477
233.00	8	1.4142				
234.00	5	0.3536				
235.00	8	4.9498				
238.00	32	1.0607				
232.00	19	2.8284				
236.00	6	0.7071				
U 238	47	4.2426	2.2446	1.3135	ng/l	58.5185
U 238	26	2.4749	2.7180	0.7688	ng/l	28.2843

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010535

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226226d df100
Sample Description:
Sample Type: Sample
Sequence Number: 203
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:02:57 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	55555	2557.3320	0	0.0000
U 238	55299	2549.5393	0	0.0000
Bi 209	21970	1290.1731	0	0.0000
Bi 209	21970	1290.1731	0	0.0000
233.00	5	1.4142	0	0.0000
234.00	7	2.1213	0	0.0000
235.00	245	6.3648	0	0.0000
238.00	62058	1478.8632	0	0.0000
232.00	12	3.8891	0	0.0000
236.00	7	0.0000	0	0.0000
U 238	55480	705.2207	0	0.0000
U 238	55224	697.9310	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.5287	0.1164	1.908E+04	878.8041	ng/l	4.6061
U 238]	2.5170	0.1160	1.906E+04	879.0623	ng/l	4.6118
Bi 209 <]	21970	1290.1731			ions/sec	
Bi 209	21970	1290.1731	88.0723	5.1755	%r	5.8764
233.00	5	1.4142				
234.00	7	2.1213				
235.00	245	6.3648				
238.00	62058	1478.8632				
232.00	12	3.8891				
236.00	7	0.0000				
U 238	55480	705.2207	1.716E+04	218.3326	ng/l	1.2720
U 238	55224	697.9310	1.715E+04	216.7973	ng/l	1.2642

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010536

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226227 df10
Sample Description:
Sample Type: Sample
Sequence Number: 204
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:05:29 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	54852	1623.3226	0	0.0000
U 238	54596	1648.2103	0	0.0000
Bi 209	20651	1137.2256	0	0.0000
Bi 209	20651	1137.2256	0	0.0000
233.00	6	0.7071	0	0.0000
234.00	6	0.3536	0	0.0000
235.00	245	38.1854	0	0.0000
238.00	59625	2990.7358	0	0.0000
232.00	27	1.4142	0	0.0000
236.00	12	0.3536	0	0.0000
U 238	54807	1397.2722	0	0.0000
U 238	54550	1358.2196	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.6561	0.0786	2.004E+04	593.4545	ng/l	2.9612
U 238]	2.6437	0.0798	2.002E+04	604.5723	ng/l	3.0197
Bi 209 <]	20651	1137.2256			ions/sec	
Bi 209	20651	1137.2256	82.7834	4.5619	%r	5.5107
233.00	6	0.7071				
234.00	6	0.3536				
235.00	245	38.1854				
238.00	59625	2990.7358				
232.00	27	1.4142				
236.00	12	0.3536				
U 238	54807	1397.2722	1.696E+04	432.5880	ng/l	2.5513
U 238	54550	1358.2196	1.694E+04	421.9018	ng/l	2.4906

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010537

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226227s df10
Sample Description:
Sample Type: Sample
Sequence Number: 205
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:08:02 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

Corduna 6/12/03

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	485718	3.206E+04	0	0.0000
U 238	484177	3.195E+04	0	0.0000
Bi 209	18886	1949.5928	0	0.0000
Bi 209	18886	1949.5928	0	0.0000
233.00	44	5.6569	0	0.0000
234.00	11	0.7071	0	0.0000
235.00	1482	45.2627	0	0.0000
238.00	520906	2.021E+04	0	0.0000
232.00	436825	2.190E+04	0	0.0000
236.00	11	0.0000	0	0.0000
U 238	484063	1.808E+04	0	0.0000
U 238	482528	1.803E+04	0	0.0000

	Net Ratio Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	25.7184	1.6977	1.942E+05	1.282E+04	ng/l	6.6015
U 238	25.6368	1.6919	1.942E+05	1.282E+04	ng/l	6.5998
Bi 209	18886	1949.5928			ions/sec	
Bi 209	18886	1949.5928	75.7021	7.8207	%r	10.3309
233.00	44	5.6569				
234.00	11	0.7071				
235.00	1482	45.2627				
238.00	520906	2.021E+04				
232.00	436825	2.190E+04				
236.00	11	0.0000				
U 238	484063	1.808E+04	1.499E+05	5596.7168	ng/l	3.7348
U 238	482528	1.803E+04	1.499E+05	5599.7085	ng/l	3.7361

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010538

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226228 df10
Sample Description:
Sample Type: Sample
Sequence Number: 206
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:10:35 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	26677	304.3278	0	0.0000
U 238	26553	317.4148	0	0.0000
Bi 209	18280	0.0000	0	0.0000
Bi 209	18280	0.0000	0	0.0000
233.00	7	0.3536	0	0.0000
234.00	6	1.4142	0	0.0000
235.00	113	11.3140	0	0.0000
238.00	28909	649.9444	0	0.0000
232.00	243	88.3921	0	0.0000
236.00	7	2.1213	0	0.0000
U 238	26677	312.5017	0	0.0000
U 238	26553	325.7249	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	1.4594	0.0166	1.101E+04	125.6893	ng/l	1.1420
U 238	]	1.4526	0.0174	1.100E+04	131.5336	ng/l	1.1960
Bi 209	<]	18280	0.0000			ions/sec	
Bi 209		18280	0.0000	73.2706	0.0000	%r	0.0000
233.00		7	0.3536				
234.00		6	1.4142				
235.00		113	11.3140				
238.00		28909	649.9444				
232.00		243	88.3921				
236.00		7	2.1213				
U 238		26677	312.5017	8247.0313	96.7489	ng/l	1.1731
U 238		26553	325.7249	8242.5762	101.1794	ng/l	1.2275

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010539

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226229 df50
Sample Description:
Sample Type: Sample
Sequence Number: 207
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:13:08 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

Corduna 6/12/03

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	3098	58.1482	0	0.0000
U 238	3061	53.9342	0	0.0000
Bi 209	20497	197.9954	0	0.0000
Bi 209	20497	197.9954	0	0.0000
233.00	6	1.4142	0	0.0000
234.00	7	2.4749	0	0.0000
235.00	24	5.6569	0	0.0000
238.00	3331	149.9891	0	0.0000
232.00	58	14.1423	0	0.0000
236.00	5	0.0000	0	0.0000
U 238	3098	88.0754	0	0.0000
U 238	3061	83.4926	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.1511	2.837E-03	1129.1263	21.4179	ng/l	1.8969
U 238	0.1493	2.631E-03	1125.9504	19.9323	ng/l	1.7703
Bi 209	20497	197.9954			ions/sec	
Bi 209	20497	197.9954	82.1642	0.7942	%r	0.9667
233.00	6	1.4142				
234.00	7	2.4749				
235.00	24	5.6569				
238.00	3331	149.9891				
232.00	58	14.1423				
236.00	5	0.0000				
U 238	3098	88.0754	946.9960	27.2677	ng/l	2.8794
U 238	3061	83.4926	945.4988	25.9352	ng/l	2.7430

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010540

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226230 df10
Sample Description:
Sample Type: Sample
Sequence Number: 208
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:15:42 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	6321	193.1256	0	0.0000
U 238	6280	199.3972	0	0.0000
Bi 209	19917	49.4005	0	0.0000
Bi 209	19917	49.4005	0	0.0000
233.00	4	0.7071	0	0.0000
234.00	6	1.7678	0	0.0000
235.00	31	3.8891	0	0.0000
238.00	6730	297.3370	0	0.0000
232.00	47	5.3033	0	0.0000
236.00	7	0.7071	0	0.0000
U 238	6320	177.6761	0	0.0000
U 238	6280	184.0678	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	0.3174	9.696E-03	2384.0063	73.2054	ng/l	3.0707
U 238]	0.3153	0.0100	2383.2097	75.8360	ng/l	3.1821
Bi 209 <]	19917	49.4005			ions/sec	
Bi 209	19917	49.4005	79.8383	0.1982	%r	0.2482
233.00	4	0.7071				
234.00	6	1.7678				
235.00	31	3.8891				
238.00	6730	297.3370				
232.00	47	5.3033				
236.00	7	0.7071				
U 238	6320	177.6761	1944.6324	55.0076	ng/l	2.8287
U 238	6280	184.0678	1945.3018	57.1767	ng/l	2.9392

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010541

Data Set:	june03-misc4
Data Set Description:	
Parameter File:	u_tot_in
Sample ID:	226231 df50
Sample Description:	
Sample Type:	Sample
Sequence Number:	209
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	2
Time:	15:18:17 Jun 12 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88
Calibration File:	[Untitled]
Calibration:	External Standard

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	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	22982	576.2297	0	0.0000
U 238	22870	572.5989	0	0.0000
Bi 209	20936	405.2468	0	0.0000
Bi 209	20936	405.2468	0	0.0000
233.00	6	1.7678	0	0.0000
234.00	6	0.3535	0	0.0000
235.00	100	3.5354	0	0.0000
238.00	25127	460.1273	0	0.0000
232.00	19	4.9498	0	0.0000
236.00	8	3.1820	0	0.0000
U 238	22976	131.3044	0	0.0000
U 238	22864	129.5770	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.0977	0.0275	8275.5977	207.7931	ng/l	2.5109
U 238	1.0924	0.0273	8269.4092	207.1758	ng/l	2.5053
Bi 209	20936	405.2468			ions/sec	
Bi 209	20936	405.2468	83.9256	1.6256	%r	1.9370
233.00	6	1.7678				
234.00	6	0.3535				
235.00	100	3.5354				
238.00	25127	460.1273				
232.00	19	4.9498				
236.00	8	3.1820				
U 238	22976	131.3044	7101.2241	40.6512	ng/l	0.5725
U 238	22864	129.5770	7096.9033	40.2503	ng/l	0.5672

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010542

Data Set:	june03-misc4
Data Set Description:	
Parameter File:	u_tot_in
Sample ID:	226232 df100
Sample Description:	
Sample Type:	Sample
Sequence Number:	210
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	2
Time:	15:20:52 Jun 12 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88
Calibration File:	[Untitled]
Calibration:	External Standard

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	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	28472	369.5716	0	0.0000
U 238	28345	361.7904	0	0.0000
Bi 209	21541	239.9081	0	0.0000
Bi 209	21541	239.9081	0	0.0000
233.00	4	0.3535	0	0.0000
234.00	6	2.4749	0	0.0000
235.00	117	7.0713	0	0.0000
238.00	30828	768.6136	0	0.0000
232.00	15	4.5962	0	0.0000
236.00	9	0.0000	0	0.0000
U 238	28474	686.8058	0	0.0000
U 238	28347	677.5130	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.3218	0.0172	9966.9453	129.5260	ng/l	1.2996
U 238	1.3159	0.0168	9962.3164	127.2238	ng/l	1.2771
Bi 209	21541	239.9081			ions/sec	
Bi 209	21541	239.9081	86.3535	0.9624	%r	1.1145
233.00	4	0.3535				
234.00	6	2.4749				
235.00	117	7.0713				
238.00	30828	768.6136				
232.00	15	4.5962				
236.00	9	0.0000				
U 238	28474	686.8058	8803.3428	212.6314	ng/l	2.4153
U 238	28347	677.5130	8800.0469	210.4549	ng/l	2.3915

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010543

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226233 df50
Sample Description:
Sample Type: Sample
Sequence Number: 211
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:23:27 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	33377	423.6429	0	0.0000
U 238	33208	422.5919	0	0.0000
Bi 209	21043	439.9383	0	0.0000
Bi 209	21043	439.9383	0	0.0000
233.00	4	2.4749	0	0.0000
234.00	9	1.4142	0	0.0000
235.00	156	1.0629	0	0.0000
238.00	36235	1008.5106	0	0.0000
232.00	15	0.3535	0	0.0000
236.00	6	1.7678	0	0.0000
U 238	33372	274.5742	0	0.0000
U 238	33203	272.1744	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	1.5861	0.0201	1.196E+04	151.9894	ng/l	1.2705
U 238 ┘	1.5781	0.0201	1.195E+04	152.1204	ng/l	1.2731
Bi 209 <┘	21043	439.9383			ions/sec	
Bi 209	21043	439.9383	84.3564	1.7648	%r	2.0921
233.00	4	2.4749				
234.00	9	1.4142				
235.00	156	1.0629				
238.00	36235	1008.5106				
232.00	15	0.3535				
236.00	6	1.7678				
U 238	33372	274.5742	1.032E+04	85.0067	ng/l	0.8237
U 238	33203	272.1744	1.031E+04	84.5451	ng/l	0.8202

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010544

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226234 df50
Sample Description:
Sample Type: Sample
Sequence Number: 212
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:26:03 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

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	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	17950	468.3529	0	0.0000
U 238	17890	468.8970	0	0.0000
Bi 209	20929	306.2408	0	0.0000
Bi 209	20929	306.2408	0	0.0000
233.00	4	0.3535	0	0.0000
234.00	6	1.0607	0	0.0000
235.00	50	1.7678	0	0.0000
238.00	20083	575.4243	0	0.0000
232.00	10	1.0607	0	0.0000
236.00	4	0.3536	0	0.0000
U 238	17953	730.9800	0	0.0000
U 238	17893	730.6153	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.8577	0.0224	6463.2646	168.9506	ng/l	2.6140
U 238	0.8548	0.0224	6469.7300	169.7137	ng/l	2.6232
Bi 209	20929	306.2408			ions/sec	
Bi 209	20929	306.2408	83.8964	1.2285	%r	1.4643
233.00	4	0.3535				
234.00	6	1.0607				
235.00	50	1.7678				
238.00	20083	575.4243				
232.00	10	1.0607				
236.00	4	0.3536				
U 238	17953	730.9800	5546.1270	226.3075	ng/l	4.0805
U 238	17893	730.6153	5552.6885	226.9500	ng/l	4.0872

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010545

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 213
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:28:39 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	40608	2299.6667	0	0.0000
U 238	40494	2297.9446	0	0.0000
Bi 209	21964	1006.9117	0	0.0000
Bi 209	21964	1006.9117	0	0.0000
233.00	8	0.3536	0	0.0000
234.00	5	0.0000	0	0.0000
235.00	102	3.8890	0	0.0000
238.00	43753	611.8128	0	0.0000
232.00	37849	2382.4155	0	0.0000
236.00	4	0.3535	0	0.0000
U 238	40555	438.1674	0	0.0000
U 238	40441	441.5329	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	1.8489	0.1047	1.395E+04	790.4775	ng/l	5.6680
U 238]	1.8437	0.1046	1.396E+04	792.5326	ng/l	5.6770
Bi 209 <	21964	1006.9117			ions/sec	
Bi 209	21964	1006.9117	88.0480	4.0392	%r	4.5875
233.00	8	0.3536				
234.00	5	0.0000				
235.00	102	3.8890				
238.00	43753	611.8128				
232.00	37849	2382.4155				
236.00	4	0.3535				
U 238	40555	438.1674	1.254E+04	135.6543	ng/l	1.0815
U 238	40441	441.5329	1.256E+04	137.1527	ng/l	1.0923

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010546

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 214
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:31:14 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	42	0.0538	0	0.0000
U 238	25	0.6672	0	0.0000
Bi 209	22296	347.3638	0	0.0000
Bi 209	22296	347.3638	0	0.0000
233.00	5	0.3535	0	0.0000
234.00	5	0.3535	0	0.0000
235.00	6	0.3535	0	0.0000
238.00	23	0.0000	0	0.0000
232.00	18	3.5355	0	0.0000
236.00	5	0.0000	0	0.0000
U 238	42	0.7071	0	0.0000
U 238	25	1.0606	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.884E-03	2.414E-06	2.3268	0.0182	ng/l	0.7833
U 238	1.132E-03	2.992E-05	3.2566	0.2267	ng/l	6.9603
Bi 209 <-	22296	347.3638			ions/sec	
Bi 209	22296	347.3638	89.3828	1.3934	%r	1.5589
233.00	5	0.3535				
234.00	5	0.3535				
235.00	6	0.3535				
238.00	23	0.0000				
232.00	18	3.5355				
236.00	5	0.0000				
U 238	42	0.7071	0.8514	0.2189	ng/l	25.7139
U 238	25	1.0606	2.4074	0.3295	ng/l	13.6853

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010547

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226235 df500
Sample Description:
Sample Type: Sample
Sequence Number: 215
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:33:50 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	49447	200.5442	0	0.0000
U 238	49305	210.2082	0	0.0000
Bi 209	21430	722.9655	0	0.0000
Bi 209	21430	722.9655	0	0.0000
233.00	9	1.4142	0	0.0000
234.00	9	2.1213	0	0.0000
235.00	125	12.0210	0	0.0000
238.00	53625	1706.3315	0	0.0000
232.00	9	1.4142	0	0.0000
236.00	6	0.3535	0	0.0000
U 238	49444	1466.0806	0	0.0000
U 238	49302	1453.2592	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.3074	9.358E-03	1.741E+04	70.6505	ng/l	0.4058
U 238	2.3008	9.809E-03	1.742E+04	74.3032	ng/l	0.4265
Bi 209 <	21430	722.9655			ions/sec	
Bi 209	21430	722.9655	85.9076	2.9001	%r	3.3759
233.00	9	1.4142				
234.00	9	2.1213				
235.00	125	12.0210				
238.00	53625	1706.3315				
232.00	9	1.4142				
236.00	6	0.3535				
U 238	49444	1466.0806	1.530E+04	453.8907	ng/l	2.9675
U 238	49302	1453.2592	1.531E+04	451.4238	ng/l	2.9487

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010548

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226236 df100
Sample Description:
Sample Type: Sample
Sequence Number: 216
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:36:27 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	22421	515.4164	0	0.0000
U 238	22352	512.6638	0	0.0000
Bi 209	21219	627.4838	0	0.0000
Bi 209	21219	627.4838	0	0.0000
233.00	6	1.0607	0	0.0000
234.00	4	0.3535	0	0.0000
235.00	58	2.1213	0	0.0000
238.00	24265	1038.2095	0	0.0000
232.00	11	0.3535	0	0.0000
236.00	8	1.0607	0	0.0000
U 238	22413	147.4549	0	0.0000
U 238	22345	148.6606	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.0567	0.0243	7965.6235	183.3883	ng/l	2.3022
U 238	1.0534	0.0242	7974.4634	183.0202	ng/l	2.2951
Bi 209	21219	627.4838			ions/sec	
Bi 209	21219	627.4838	85.0590	2.5171	%r	2.9593
233.00	6	1.0607				
234.00	4	0.3535				
235.00	58	2.1213				
238.00	24265	1038.2095				
232.00	11	0.3535				
236.00	8	1.0607				
U 238	22413	147.4549	6926.9038	45.6513	ng/l	0.6590
U 238	22345	148.6606	6935.5122	46.1782	ng/l	0.6658

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010549

Data Set:	june03-misc4
Data Set Description:	
Parameter File:	u_tot_in
Sample ID:	226237 df100
Sample Description:	
Sample Type:	Sample
Sequence Number:	217
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	2
Time:	15:39:04 Jun 12 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88
Calibration File:	[Untitled]
Calibration:	External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	26097	369.3694	0	0.0000
U 238	26021	371.0557	0	0.0000
Bi 209	21764	756.6650	0	0.0000
Bi 209	21764	756.6650	0	0.0000
233.00	4	2.4749	0	0.0000
234.00	5	0.3536	0	0.0000
235.00	67	1.7678	0	0.0000
238.00	28621	903.2049	0	0.0000
232.00	10	2.1213	0	0.0000
236.00	5	2.4749	0	0.0000
U 238	26104	1276.8248	0	0.0000
U 238	26028	1275.7479	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	1.1991	0.0170	9041.1563	128.1324	ng/l	1.4172
U 238	]	1.1956	0.0170	9051.5205	129.1487	ng/l	1.4268
Bi 209	<	21764	756.6650			ions/sec	
Bi 209		21764	756.6650	87.2455	3.0353	%r	3.4791
233.00		4	2.4749				
234.00		5	0.3536				
235.00		67	1.7678				
238.00		28621	903.2049				
232.00		10	2.1213				
236.00		5	2.4749				
U 238		26104	1276.8248	8069.4463	395.2982	ng/l	4.8987
U 238		26028	1275.7479	8079.4639	396.2837	ng/l	4.9048

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010550

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226238 df100
Sample Description:
Sample Type: Sample
Sequence Number: 218
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:41:42 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	41719	1495.4689	0	0.0000
U 238	41597	1497.9810	0	0.0000
Bi 209	21808	371.1232	0	0.0000
Bi 209	21808	371.1232	0	0.0000
233.00	7	4.2426	0	0.0000
234.00	5	0.0000	0	0.0000
235.00	110	8.8390	0	0.0000
238.00	45771	2172.5779	0	0.0000
232.00	11	2.8284	0	0.0000
236.00	6	0.7071	0	0.0000
U 238	41706	785.4509	0	0.0000
U 238	41584	789.9322	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	1.9130	0.0686	1.443E+04	517.7205	ng/l	3.5876
U 238	]	1.9074	0.0687	1.444E+04	520.3281	ng/l	3.6025
Bi 209	<]	21808	371.1232			ions/sec	
Bi 209		21808	371.1232	87.4226	1.4887	%r	1.7029
233.00		7	4.2426				
234.00		5	0.0000				
235.00		110	8.8390				
238.00		45771	2172.5779				
232.00		11	2.8284				
236.00		6	0.7071				
U 238		41706	785.4509	1.290E+04	243.1714	ng/l	1.8851
U 238		41584	789.9322	1.291E+04	245.3755	ng/l	1.9004

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010551

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226239 df200
Sample Description:
Sample Type: Sample
Sequence Number: 219
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:44:20 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	43155	1057.9049	0	0.0000
U 238	43031	1050.9653	0	0.0000
Bi 209	21958	603.0826	0	0.0000
Bi 209	21958	603.0826	0	0.0000
233.00	6	0.7071	0	0.0000
234.00	6	1.7678	0	0.0000
235.00	112	2.4753	0	0.0000
238.00	47797	1412.0062	0	0.0000
232.00	7	1.0607	0	0.0000
236.00	6	1.0607	0	0.0000
U 238	43140	127.9514	0	0.0000
U 238	43017	130.7374	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	1.9653	0.0482	1.483E+04	363.7315	ng/l	2.4534
U 238 ┘	1.9597	0.0479	1.484E+04	362.5565	ng/l	2.4432
Bi 209 <┘	21958	603.0826			ions/sec	
Bi 209	21958	603.0826	88.0257	2.4192	%r	2.7483
233.00	6	0.7071				
234.00	6	1.7678				
235.00	112	2.4753				
238.00	47797	1412.0062				
232.00	7	1.0607				
236.00	6	1.0607				
U 238	43140	127.9514	1.334E+04	39.6131	ng/l	0.2969
U 238	43017	130.7374	1.336E+04	40.6108	ng/l	0.3040

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010552

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226240 df100
Sample Description:
Sample Type: Sample
Sequence Number: 220
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:46:55 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	36489	511.8051	0	0.0000
U 238	36387	502.6716	0	0.0000
Bi 209	21506	171.5229	0	0.0000
Bi 209	21506	171.5229	0	0.0000
233.00	8	0.7071	0	0.0000
234.00	4	0.3535	0	0.0000
235.00	91	8.4854	0	0.0000
238.00	39660	1581.1073	0	0.0000
232.00	10	1.0607	0	0.0000
236.00	4	0.7071	0	0.0000
U 238	36487	219.7977	0	0.0000
U 238	36385	212.7376	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.6967	0.0238	1.280E+04	179.6726	ng/l	1.4039
U 238	1.6920	0.0234	1.281E+04	177.0576	ng/l	1.3820
Bi 209	21506	171.5229			ions/sec	
Bi 209	21506	171.5229	86.2106	0.6881	%r	0.7981
233.00	8	0.7071				
234.00	4	0.3535				
235.00	91	8.4854				
238.00	39660	1581.1073				
232.00	10	1.0607				
236.00	4	0.7071				
U 238	36487	219.7977	1.128E+04	68.0482	ng/l	0.6030
U 238	36385	212.7376	1.130E+04	66.0824	ng/l	0.5850

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010553

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226241 df200
Sample Description:
Sample Type: Sample
Sequence Number: 221
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:49:26 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	41399	400.2061	0	0.0000
U 238	41287	397.3589	0	0.0000
Bi 209	21909	965.7768	0	0.0000
Bi 209	21909	965.7768	0	0.0000
233.00	5	1.7678	0	0.0000
234.00	5	1.7678	0	0.0000
235.00	101	1.7678	0	0.0000
238.00	45188	870.0550	0	0.0000
232.00	7	0.3535	0	0.0000
236.00	6	2.4749	0	0.0000
U 238	41390	1424.5469	0	0.0000
U 238	41279	1422.7264	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	1.8896	0.0183	1.425E+04	137.9086	ng/l	0.9675
U 238]	1.8845	0.0181	1.427E+04	137.3864	ng/l	0.9628
Bi 209 <	21909	965.7768			ions/sec	
Bi 209	21909	965.7768	87.8285	3.8742	%r	4.4111
233.00	5	1.7678				
234.00	5	1.7678				
235.00	101	1.7678				
238.00	45188	870.0550				
232.00	7	0.3535				
236.00	6	2.4749				
U 238	41390	1424.5469	1.280E+04	441.0321	ng/l	3.4450
U 238	41279	1422.7264	1.282E+04	441.9394	ng/l	3.4481

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010554

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 222
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:52:00 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	41004	92.2252	0	0.0000
U 238	40896	98.7366	0	0.0000
Bi 209	22072	743.9882	0	0.0000
Bi 209	22072	743.9882	0	0.0000
233.00	8	0.7071	0	0.0000
234.00	4	3.1820	0	0.0000
235.00	96	7.4246	0	0.0000
238.00	44120	163.9205	0	0.0000
232.00	38570	1065.2393	0	0.0000
236.00	4	1.4142	0	0.0000
U 238	41003	1290.3737	0	0.0000
U 238	40894	1280.4208	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	1.8577	4.178E-03	1.401E+04	31.5451	ng/l	0.2251
U 238	]	1.8528	4.473E-03	1.403E+04	33.8854	ng/l	0.2415
Bi 209	<	22072	743.9882			ions/sec	
Bi 209		22072	743.9882	88.4838	2.9845	%r	3.3729
233.00		8	0.7071				
234.00		4	3.1820				
235.00		96	7.4246				
238.00		44120	163.9205				
232.00		38570	1065.2393				
236.00		4	1.4142				
U 238		41003	1290.3737	1.268E+04	399.4928	ng/l	3.1501
U 238		40894	1280.4208	1.270E+04	397.7352	ng/l	3.1324

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010555

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 223
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 15:54:35 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	38	4.5998	0	0.0000
U 238	25	4.9521	0	0.0000
Bi 209	22639	2.1296	0	0.0000
Bi 209	22639	2.1296	0	0.0000
233.00	5	1.4142	0	0.0000
234.00	4	0.3536	0	0.0000
235.00	5	2.1213	0	0.0000
238.00	24	1.0607	0	0.0000
232.00	18	0.7071	0	0.0000
236.00	6	2.1213	0	0.0000
U 238	38	4.5962	0	0.0000
U 238	25	4.9498	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.690E-03	2.032E-04	0.8615	1.5340	ng/l	178.0548
U 238	1.104E-03	2.187E-04	3.0452	1.6570	ng/l	54.4140
Bi 209 <	22639	2.1296			ions/sec	
Bi 209	22639	2.1296	90.7551	8.543E-03	%r	9.413E-03
233.00	5	1.4142				
234.00	4	0.3536				
235.00	5	2.1213				
238.00	24	1.0607				
232.00	18	0.7071				
236.00	6	2.1213				
U 238	38	4.5962	-0.3096	1.4230	ng/l	459.6303
U 238	25	4.9498	2.3297	1.5375	ng/l	65.9967

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010556

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: pbw-f10w3
Sample Description:
Sample Type: Sample
Sequence Number: 224
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:05:32 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	121	2.9400	0	0.0000
U 238	100	3.5721	0	0.0000
Bi 209	24724	339.2567	0	0.0000
Bi 209	24724	339.2567	0	0.0000
233.00	5	0.7071	0	0.0000
234.00	7	3.5355	0	0.0000
235.00	9	2.4749	0	0.0000
238.00	109	16.9709	0	0.0000
232.00	8	1.0607	0	0.0000
236.00	6	3.5355	0	0.0000
U 238	121	4.5962	0	0.0000
U 238	101	4.9498	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	4.883E-03	1.189E-04	24.9718	0.8978	ng/l	3.5951
U 238	4.064E-03	1.445E-04	25.4642	1.0944	ng/l	4.2980
Bi 209	24724	339.2567			ions/sec	
Bi 209	24724	339.2567	99.1206	1.3609	%r	1.3730
233.00	5	0.7071				
234.00	7	3.5355				
235.00	9	2.4749				
238.00	109	16.9709				
232.00	8	1.0607				
236.00	6	3.5355				
U 238	121	4.5962	25.2322	1.4230	ng/l	5.6394
U 238	101	4.9498	25.7824	1.5376	ng/l	5.9636

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010557

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: lcsw-f10w3 df10
Sample Description:
Sample Type: Sample
Sequence Number: 225
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:08:33 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	57532	2327.4858	0	0.0000
U 238	57371	2323.3845	0	0.0000
Bi 209	43967	2660.4507	0	0.0000
Bi 209	43967	2660.4507	0	0.0000
233.00	11	0.3536	0	0.0000
234.00	7	2.1213	0	0.0000
235.00	143	8.1322	0	0.0000
238.00	62636	216.2642	0	0.0000
232.00	54014	3175.9619	0	0.0000
236.00	6	2.4749	0	0.0000
U 238	57462	1153.8115	0	0.0000
U 238	57301	1147.9724	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.3085	0.0529	9867.2305	399.6634	ng/l	4.0504
U 238	1.3049	0.0528	9879.1514	400.2962	ng/l	4.0519
Bi 209 <	43967	2660.4507			ions/sec	
Bi 209	43967	2660.4507	176.3113	10.6723	%r	6.0531
233.00	11	0.3536				
234.00	7	2.1213				
235.00	143	8.1322				
238.00	62636	216.2642				
232.00	54014	3175.9619				
236.00	6	2.4749				
U 238	57462	1153.8115	1.778E+04	357.2139	ng/l	2.0093
U 238	57301	1147.9724	1.779E+04	356.5930	ng/l	2.0040

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010558

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226242 df100
Sample Description:
Sample Type: Sample
Sequence Number: 226
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:12:37 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	54374	503.3182	0	0.0000
U 238	54230	478.1845	0	0.0000
Bi 209	21525	1290.0078	0	0.0000
Bi 209	21525	1290.0078	0	0.0000
233.00	6	1.7678	0	0.0000
234.00	6	1.0607	0	0.0000
235.00	131	13.0818	0	0.0000
238.00	59593	3149.2720	0	0.0000
232.00	8	0.3536	0	0.0000
236.00	9	0.3535	0	0.0000
U 238	54359	2755.3159	0	0.0000
U 238	54215	2771.1663	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.5261	0.0234	1.906E+04	176.5340	ng/l	0.9262
U 238]	2.5194	0.0222	1.908E+04	168.2807	ng/l	0.8820
Bi 209 <]	21525	1290.0078			ions/sec	
Bi 209	21525	1290.0078	86.2884	5.1748	%r	5.9971
233.00	6	1.7678				
234.00	6	1.0607				
235.00	131	13.0818				
238.00	59593	3149.2720				
232.00	8	0.3536				
236.00	9	0.3535				
U 238	54359	2755.3159	1.682E+04	853.0312	ng/l	5.0724
U 238	54215	2771.1663	1.684E+04	860.8033	ng/l	5.1131

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010559

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226242d df100
Sample Description:
Sample Type: Sample
Sequence Number: 227
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:15:10 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	54293	531.2987	0	0.0000
U 238	54148	528.0830	0	0.0000
Bi 209	20938	926.5336	0	0.0000
Bi 209	20938	926.5336	0	0.0000
233.00	5	1.0607	0	0.0000
234.00	5	0.7071	0	0.0000
235.00	136	4.2427	0	0.0000
238.00	59104	1328.4053	0	0.0000
232.00	10	0.3536	0	0.0000
236.00	5	1.7678	0	0.0000
U 238	54282	1871.4413	0	0.0000
U 238	54136	1867.4580	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.5931	0.0254	1.957E+04	191.5743	ng/l	0.9792
U 238 ┘	2.5861	0.0252	1.958E+04	191.0529	ng/l	0.9755
Bi 209 <┘	20938	926.5336			ions/sec	
Bi 209	20938	926.5336	83.9328	3.7167	%r	4.4282
233.00	5	1.0607				
234.00	5	0.7071				
235.00	136	4.2427				
238.00	59104	1328.4053				
232.00	10	0.3536				
236.00	5	1.7678				
U 238	54282	1871.4413	1.679E+04	579.3883	ng/l	3.4501
U 238	54136	1867.4580	1.681E+04	580.0858	ng/l	3.4507

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010560

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226243 df200
Sample Description:
Sample Type: Sample
Sequence Number: 228
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:17:44 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	42301	912.4709	0	0.0000
U 238	42185	915.9880	0	0.0000
Bi 209	21516	820.9207	0	0.0000
Bi 209	21516	820.9207	0	0.0000
233.00	4	0.3535	0	0.0000
234.00	6	1.0607	0	0.0000
235.00	106	6.3641	0	0.0000
238.00	46948	1713.9606	0	0.0000
232.00	8	0.3536	0	0.0000
236.00	5	1.0607	0	0.0000
U 238	42283	701.1496	0	0.0000
U 238	42167	693.2491	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.9660	0.0424	1.483E+04	320.1680	ng/l	2.1588
U 238	1.9606	0.0426	1.485E+04	322.4792	ng/l	2.1722
Bi 209	21516	820.9207			ions/sec	
Bi 209	21516	820.9207	86.2540	3.2931	%r	3.8179
233.00	4	0.3535				
234.00	6	1.0607				
235.00	106	6.3641				
238.00	46948	1713.9606				
232.00	8	0.3536				
236.00	5	1.0607				
U 238	42283	701.1496	1.308E+04	217.0722	ng/l	1.6598
U 238	42167	693.2491	1.309E+04	215.3430	ng/l	1.6447

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010561

Data Set:	june03-misc4
Data Set Description:	
Parameter File:	u_tot_in
Sample ID:	226243s df200
Sample Description:	
Sample Type:	Sample
Sequence Number:	229
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	2
Time:	16:20:18 Jun 12 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88
Calibration File:	[Untitled]
Calibration:	External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	68639	2925.9097	0	0.0000
U 238	68455	2906.6218	0	0.0000
Bi 209	21046	1307.3188	0	0.0000
Bi 209	21046	1307.3188	0	0.0000
233.00	7	1.0607	0	0.0000
234.00	5	4.2426	0	0.0000
235.00	172	2.8285	0	0.0000
238.00	74090	2238.2581	0	0.0000
232.00	26970	1435.1069	0	0.0000
236.00	8	2.8284	0	0.0000
U 238	68548	1337.4967	0	0.0000
U 238	68365	1346.1592	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	3.2614	0.1390	2.461E+04	1049.5935	ng/l	4.2648
U 238	]	3.2527	0.1381	2.463E+04	1046.1687	ng/l	4.2469
Bi 209	<	21046	1307.3188			ions/sec	
Bi 209		21046	1307.3188	84.3667	5.2442	%r	6.2160
233.00		7	1.0607				
234.00		5	4.2426				
235.00		172	2.8285				
238.00		74090	2238.2581				
232.00		26970	1435.1069				
236.00		8	2.8284				
U 238		68548	1337.4967	2.121E+04	414.0819	ng/l	1.9523
U 238		68365	1346.1592	2.123E+04	418.1555	ng/l	1.9696

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010562

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226244 df50
Sample Description:
Sample Type: Sample
Sequence Number: 230
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:22:53 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	21032	95.5235	0	0.0000
U 238	20967	96.3966	0	0.0000
Bi 209	20792	468.4002	0	0.0000
Bi 209	20792	468.4002	0	0.0000
233.00	5	1.0607	0	0.0000
234.00	6	0.0000	0	0.0000
235.00	55	1.4144	0	0.0000
238.00	22626	669.4589	0	0.0000
232.00	15	2.8284	0	0.0000
236.00	6	1.4142	0	0.0000
U 238	21031	378.1914	0	0.0000
U 238	20966	375.6865	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.0115	4.594E-03	7624.8398	34.6852	ng/l	0.4549
U 238	1.0084	4.636E-03	7633.4214	35.1195	ng/l	0.4601
Bi 209	20792	468.4002			ions/sec	
Bi 209	20792	468.4002	83.3478	1.8790	%r	2.2544
233.00	5	1.0607				
234.00	6	0.0000				
235.00	55	1.4144				
238.00	22626	669.4589				
232.00	15	2.8284				
236.00	6	1.4142				
U 238	21031	378.1914	6498.8159	117.0861	ng/l	1.8017
U 238	20966	375.6865	6507.1606	116.6989	ng/l	1.7934

JE 10/17/03

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010563

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226245 df200
Sample Description:
Sample Type: Sample
Sequence Number: 231
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:25:28 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	52276	1937.8718	0	0.0000
U 238	52139	1935.4187	0	0.0000
Bi 209	21187	1045.4546	0	0.0000
Bi 209	21187	1045.4546	0	0.0000
233.00	5	3.8891	0	0.0000
234.00	6	1.0607	0	0.0000
235.00	126	7.0711	0	0.0000
238.00	58008	1244.2070	0	0.0000
232.00	8	2.1213	0	0.0000
236.00	5	0.3536	0	0.0000
U 238	52228	641.4008	0	0.0000
U 238	52091	636.9302	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.4673	0.0915	1.862E+04	690.5345	ng/l	3.7094
U 238	2.4609	0.0913	1.864E+04	691.9717	ng/l	3.7131
Bi 209	21187	1045.4546			ions/sec	
Bi 209	21187	1045.4546	84.9323	4.1938	%r	4.9378
233.00	5	3.8891				
234.00	6	1.0607				
235.00	126	7.0711				
238.00	58008	1244.2070				
232.00	8	2.1213				
236.00	5	0.3536				
U 238	52228	641.4008	1.616E+04	198.5743	ng/l	1.2290
U 238	52091	636.9302	1.618E+04	197.8487	ng/l	1.2231

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010564

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226246 df100
Sample Description:
Sample Type: Sample
Sequence Number: 232
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:28:04 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	22627	106.3529	0	0.0000
U 238	22559	107.2193	0	0.0000
Bi 209	21257	89.1852	0	0.0000
Bi 209	21257	89.1852	0	0.0000
233.00	5	0.3535	0	0.0000
234.00	5	2.1213	0	0.0000
235.00	58	2.8284	0	0.0000
238.00	24171	745.9783	0	0.0000
232.00	9	1.4142	0	0.0000
236.00	5	0.3535	0	0.0000
U 238	22627	13.1507	0	0.0000
U 238	22559	13.1340	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.0645	5.003E-03	8024.4614	37.7731	ng/l	0.4707
U 238	1.0613	5.044E-03	8033.8247	38.2085	ng/l	0.4756
Bi 209	21257	89.1852			ions/sec	
Bi 209	21257	89.1852	85.2120	0.3578	%r	0.4198
233.00	5	0.3535				
234.00	5	2.1213				
235.00	58	2.8284				
238.00	24171	745.9783				
232.00	9	1.4142				
236.00	5	0.3535				
U 238	22627	13.1507	6992.9531	4.0714	ng/l	0.0582
U 238	22559	13.1340	7002.0161	4.0798	ng/l	0.0583

6/17/03

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010565

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226247 df100
Sample Description:
Sample Type: Sample
Sequence Number: 233
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:30:40 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	33203	1106.9774	0	0.0000
U 238	33108	1109.5646	0	0.0000
Bi 209	21411	859.1817	0	0.0000
Bi 209	21411	859.1817	0	0.0000
233.00	4	0.7071	0	0.0000
234.00	7	1.7678	0	0.0000
235.00	83	5.3034	0	0.0000
238.00	36237	261.6941	0	0.0000
232.00	10	0.3536	0	0.0000
236.00	8	0.3536	0	0.0000
U 238	33181	225.6050	0	0.0000
U 238	33086	219.0595	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.5508	0.0517	1.170E+04	390.3376	ng/l	3.3374
U 238	1.5464	0.0518	1.171E+04	392.5610	ng/l	3.3528
Bi 209	21411	859.1817			ions/sec	
Bi 209	21411	859.1817	85.8292	3.4466	%r	4.0156
233.00	4	0.7071				
234.00	7	1.7678				
235.00	83	5.3034				
238.00	36237	261.6941				
232.00	10	0.3536				
236.00	8	0.3536				
U 238	33181	225.6050	1.026E+04	69.8461	ng/l	0.6807
U 238	33086	219.0595	1.027E+04	68.0461	ng/l	0.6624

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010566

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 234
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:33:16 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	40205	1431.1406	0	0.0000
U 238	40087	1428.2677	0	0.0000
Bi 209	21977	1212.4487	0	0.0000
Bi 209	21977	1212.4487	0	0.0000
233.00	10	0.3536	0	0.0000
234.00	6	0.0000	0	0.0000
235.00	103	3.8890	0	0.0000
238.00	44214	386.1498	0	0.0000
232.00	38092	1529.6813	0	0.0000
236.00	4	0.3535	0	0.0000
U 238	40166	786.9399	0	0.0000
U 238	40048	783.3086	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.8294	0.0651	1.380E+04	491.6359	ng/l	3.5627
U 238	1.8240	0.0650	1.381E+04	492.2932	ng/l	3.5643
Bi 209	21977	1212.4487			ions/sec	
Bi 209	21977	1212.4487	88.1014	4.8637	%r	5.5205
233.00	10	0.3536				
234.00	6	0.0000				
235.00	103	3.8890				
238.00	44214	386.1498				
232.00	38092	1529.6813				
236.00	4	0.3535				
U 238	40166	786.9399	1.242E+04	243.6324	ng/l	1.9612
U 238	40048	783.3086	1.243E+04	243.3180	ng/l	1.9568

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010567

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 235
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:35:51 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	37	11.1498	0	0.0000
U 238	23	5.7740	0	0.0000
Bi 209	22539	115.0354	0	0.0000
Bi 209	22539	115.0354	0	0.0000
233.00	4	2.8284	0	0.0000
234.00	5	0.0000	0	0.0000
235.00	6	2.4749	0	0.0000
238.00	26	0.0000	0	0.0000
232.00	17	2.4749	0	0.0000
236.00	4	3.1820	0	0.0000
U 238	37	10.9602	0	0.0000
U 238	23	5.6569	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	1.654E-03	4.947E-04	0.5921	3.7347	ng/l	630.7516
U 238 ┘	1.021E-03	2.562E-04	2.4147	1.9405	ng/l	80.3627
Bi 209 <┘	22539	115.0354			ions/sec	
Bi 209	22539	115.0354	90.3574	0.4615	%r	0.5107
233.00	4	2.8284				
234.00	5	0.0000				
235.00	6	2.4749				
238.00	26	0.0000				
232.00	17	2.4749				
236.00	4	3.1820				
U 238	37	10.9602	-0.6192	3.3932	ng/l	548.0129
U 238	23	5.6569	1.7085	1.7572	ng/l	102.8517

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010568

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226248 df100
Sample Description:
Sample Type: Sample
Sequence Number: 236
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:38:27 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	43658	591.9766	0	0.0000
U 238	43541	598.4018	0	0.0000
Bi 209	21564	878.4168	0	0.0000
Bi 209	21564	878.4168	0	0.0000
233.00	6	0.0000	0	0.0000
234.00	5	0.0000	0	0.0000
235.00	107	10.6069	0	0.0000
238.00	47915	256.7276	0	0.0000
232.00	9	2.4749	0	0.0000
236.00	6	1.0607	0	0.0000
U 238	43646	1185.8625	0	0.0000
U 238	43528	1175.4694	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.0246	0.0275	1.527E+04	207.2584	ng/l	1.3570
U 238]	2.0192	0.0278	1.529E+04	210.2100	ng/l	1.3748
Bi 209 <	21564	878.4168			ions/sec	
Bi 209	21564	878.4168	86.4432	3.5237	%r	4.0763
233.00	6	0.0000				
234.00	5	0.0000				
235.00	107	10.6069				
238.00	47915	256.7276				
232.00	9	2.4749				
236.00	6	1.0607				
U 238	43646	1185.8625	1.350E+04	367.1367	ng/l	2.7194
U 238	43528	1175.4694	1.352E+04	365.1343	ng/l	2.7016

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010569

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226249 df100
Sample Description:
Sample Type: Sample
Sequence Number: 237
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:41:04 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	45609	1384.2274	0	0.0000
U 238	45497	1395.9099	0	0.0000
Bi 209	21188	812.6591	0	0.0000
Bi 209	21188	812.6591	0	0.0000
233.00	6	2.4749	0	0.0000
234.00	5	1.0607	0	0.0000
235.00	101	12.7281	0	0.0000
238.00	49888	461.1662	0	0.0000
232.00	9	0.3536	0	0.0000
236.00	5	1.4142	0	0.0000
U 238	45582	364.9088	0	0.0000
U 238	45470	348.3953	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.1526	0.0653	1.624E+04	493.2279	ng/l	3.0372
U 238 ┘	2.1473	0.0659	1.626E+04	499.0575	ng/l	3.0691
Bi 209 <┘	21188	812.6591			ions/sec	
Bi 209	21188	812.6591	84.9363	3.2599	%r	3.8381
233.00	6	2.4749				
234.00	5	1.0607				
235.00	101	12.7281				
238.00	49888	461.1662				
232.00	9	0.3536				
236.00	5	1.4142				
U 238	45582	364.9088	1.410E+04	112.9738	ng/l	0.8012
U 238	45470	348.3953	1.412E+04	108.2215	ng/l	0.7665

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010570

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226250 df100
Sample Description:
Sample Type: Sample
Sequence Number: 238
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:43:42 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	42816	553.7840	0	0.0000
U 238	42697	533.2216	0	0.0000
Bi 209	21121	725.7070	0	0.0000
Bi 209	21121	725.7070	0	0.0000
233.00	5	0.7071	0	0.0000
234.00	8	1.4142	0	0.0000
235.00	107	14.4960	0	0.0000
238.00	47124	1068.5892	0	0.0000
232.00	7	1.7678	0	0.0000
236.00	5	2.1213	0	0.0000
U 238	42807	917.4719	0	0.0000
U 238	42688	933.9941	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.0272	0.0262	1.529E+04	197.9503	ng/l	1.2944
U 238]	2.0215	0.0252	1.531E+04	191.2390	ng/l	1.2493
Bi 209 <	21121	725.7070			ions/sec	
Bi 209	21121	725.7070	84.6675	2.9111	%r	3.4383
233.00	5	0.7071				
234.00	8	1.4142				
235.00	107	14.4960				
238.00	47124	1068.5892				
232.00	7	1.7678				
236.00	5	2.1213				
U 238	42807	917.4719	1.324E+04	284.0444	ng/l	2.1453
U 238	42688	933.9941	1.325E+04	290.1252	ng/l	2.1889

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010571

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226251 df200
Sample Description:
Sample Type: Sample
Sequence Number: 239
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:46:20 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	38000	372.5226	0	0.0000
U 238	37894	372.2436	0	0.0000
Bi 209	21290	743.1168	0	0.0000
Bi 209	21290	743.1168	0	0.0000
233.00	5	0.0000	0	0.0000
234.00	3	1.0607	0	0.0000
235.00	99	4.2427	0	0.0000
238.00	42319	1517.0203	0	0.0000
232.00	5	3.1820	0	0.0000
236.00	5	1.4142	0	0.0000
U 238	37993	953.9002	0	0.0000
U 238	37887	950.6498	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	1.7849	0.0175	1.346E+04	132.1021	ng/l	0.9812
U 238]	1.7799	0.0175	1.348E+04	132.4455	ng/l	0.9827
Bi 209 <	21290	743.1168			ions/sec	
Bi 209	21290	743.1168	85.3449	2.9810	%r	3.4929
233.00	5	0.0000				
234.00	3	1.0607				
235.00	99	4.2427				
238.00	42319	1517.0203				
232.00	5	3.1820				
236.00	5	1.4142				
U 238	37993	953.9002	1.175E+04	295.3224	ng/l	2.5133
U 238	37887	950.6498	1.176E+04	295.2990	ng/l	2.5103

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010572

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226252 df100
Sample Description:
Sample Type: Sample
Sequence Number: 240
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:48:55 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	51629	232.2155	0	0.0000
U 238	51501	218.1227	0	0.0000
Bi 209	21321	971.7084	0	0.0000
Bi 209	21321	971.7084	0	0.0000
233.00	4	0.3535	0	0.0000
234.00	7	1.7678	0	0.0000
235.00	117	7.0713	0	0.0000
238.00	56336	454.4204	0	0.0000
232.00	6	2.4749	0	0.0000
236.00	4	3.8891	0	0.0000
U 238	51624	2121.1030	0	0.0000
U 238	51496	2129.5293	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.4215	0.0109	1.827E+04	82.2268	ng/l	0.4501
U 238 ┘	2.4155	0.0102	1.829E+04	77.4954	ng/l	0.4237
Bi 209 <┘	21321	971.7084			ions/sec	
Bi 209	21321	971.7084	85.4698	3.8980	%r	4.5606
233.00	4	0.3535				
234.00	7	1.7678				
235.00	117	7.0713				
238.00	56336	454.4204				
232.00	6	2.4749				
236.00	4	3.8891				
U 238	51624	2121.1030	1.597E+04	656.6823	ng/l	4.1119
U 238	51496	2129.5293	1.599E+04	661.4926	ng/l	4.1368

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010573

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226253 df200
Sample Description:
Sample Type: Sample
Sequence Number: 241
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:51:26 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	55110	1323.2887	0	0.0000
U 238	54958	1314.2838	0	0.0000
Bi 209	21577	432.1671	0	0.0000
Bi 209	21577	432.1671	0	0.0000
233.00	5	0.7071	0	0.0000
234.00	5	0.3535	0	0.0000
235.00	142	5.3034	0	0.0000
238.00	60890	2318.5037	0	0.0000
232.00	6	0.7071	0	0.0000
236.00	6	1.0607	0	0.0000
U 238	55097	219.3928	0	0.0000
U 238	54945	212.1086	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.5541	0.0613	1.927E+04	463.0041	ng/l	2.4027
U 238 ┘	2.5470	0.0609	1.929E+04	461.3944	ng/l	2.3921
Bi 209 <┘	21577	432.1671			ions/sec	
Bi 209	21577	432.1671	86.4985	1.7336	%r	2.0042
233.00	5	0.7071				
234.00	5	0.3535				
235.00	142	5.3034				
238.00	60890	2318.5037				
232.00	6	0.7071				
236.00	6	1.0607				
U 238	55097	219.3928	1.705E+04	67.9228	ng/l	0.3985
U 238	54945	212.1086	1.706E+04	65.8870	ng/l	0.3862

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010574

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 242
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:53:59 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	40226	1637.2861	0	0.0000
U 238	40116	1639.0569	0	0.0000
Bi 209	21954	989.2070	0	0.0000
Bi 209	21954	989.2070	0	0.0000
233.00	9	3.5355	0	0.0000
234.00	7	0.3536	0	0.0000
235.00	95	9.8997	0	0.0000
238.00	43678	1429.3832	0	0.0000
232.00	38354	1981.1862	0	0.0000
236.00	7	2.4749	0	0.0000
U 238	40189	175.5015	0	0.0000
U 238	40079	168.4129	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.8323	0.0746	1.382E+04	563.0381	ng/l	4.0737
U 238	1.8272	0.0747	1.384E+04	565.5360	ng/l	4.0874
Bi 209 <	21954	989.2070			ions/sec	
Bi 209	21954	989.2070	88.0097	3.9682	%r	4.5088
233.00	9	3.5355				
234.00	7	0.3536				
235.00	95	9.8997				
238.00	43678	1429.3832				
232.00	38354	1981.1862				
236.00	7	2.4749				
U 238	40189	175.5015	1.243E+04	54.3343	ng/l	0.4371
U 238	40079	168.4129	1.244E+04	52.3139	ng/l	0.4204

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010575

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 243
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 16:56:34 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	39	2.1180	0	0.0000
U 238	26	1.2980	0	0.0000
Bi 209	22860	206.5967	0	0.0000
Bi 209	22860	206.5967	0	0.0000
233.00	4	2.8284	0	0.0000
234.00	5	2.4749	0	0.0000
235.00	4	1.0607	0	0.0000
238.00	26	6.0104	0	0.0000
232.00	16	1.4142	0	0.0000
236.00	7	0.0000	0	0.0000
U 238	39	1.7677	0	0.0000
U 238	26	1.0607	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	1.696E-03	9.265E-05	0.9062	0.6995	ng/l	77.1902
U 238	]	1.149E-03	5.678E-05	3.3802	0.4301	ng/l	12.7244
Bi 209	<	22860	206.5967			ions/sec	
Bi 209		22860	206.5967	91.6432	0.8288	%r	0.9043
233.00		4	2.8284				
234.00		5	2.4749				
235.00		4	1.0607				
238.00		26	6.0104				
232.00		16	1.4142				
236.00		7	0.0000				
U 238		39	1.7677	-0.1548	0.5473	ng/l	353.5558
U 238		26	1.0607	2.7180	0.3295	ng/l	12.1218

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010576

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226203s df200
Sample Description:
Sample Type: Sample
Sequence Number: 244
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:15:55 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	32027	1167.7303	0	0.0000
U 238	31929	1185.8309	0	0.0000
Bi 209	24356	1647.1721	0	0.0000
Bi 209	24356	1647.1721	0	0.0000
233.00	8	0.7071	0	0.0000
234.00	4	0.7071	0	0.0000
235.00	87	23.3349	0	0.0000
238.00	35031	1815.6790	0	0.0000
232.00	30766	1978.1920	0	0.0000
236.00	7	0.7071	0	0.0000
U 238	31988	998.2004	0	0.0000
U 238	31889	973.4052	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.3150	0.0479	9915.7002	361.9651	ng/l	3.6504
U 238	1.3109	0.0487	9925.1006	368.8076	ng/l	3.7159
Bi 209	24356	1647.1721			ions/sec	
Bi 209	24356	1647.1721	97.6445	6.6075	%r	6.7669
233.00	8	0.7071				
234.00	4	0.7071				
235.00	87	23.3349				
238.00	35031	1815.6790				
232.00	30766	1978.1920				
236.00	7	0.7071				
U 238	31988	998.2004	9891.0957	309.0375	ng/l	3.1244
U 238	31889	973.4052	9900.2842	302.3674	ng/l	3.0541

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010577

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226206 df10
Sample Description:
Sample Type: Sample
Sequence Number: 245
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:18:27 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	53203	1209.7279	0	0.0000
U 238	53061	1216.9824	0	0.0000
Bi 209	19523	681.8664	0	0.0000
Bi 209	19523	681.8664	0	0.0000
233.00	5	1.0607	0	0.0000
234.00	7	1.4142	0	0.0000
235.00	131	9.8998	0	0.0000
238.00	58720	2262.1514	0	0.0000
232.00	17	4.9498	0	0.0000
236.00	6	2.8284	0	0.0000
U 238	53182	648.9095	0	0.0000
U 238	53040	636.2856	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.7251	0.0620	2.056E+04	467.8110	ng/l	2.2751
U 238	2.7179	0.0623	2.058E+04	472.1935	ng/l	2.2941
Bi 209	19523	681.8664			ions/sec	
Bi 209	19523	681.8664	78.2574	2.7353	%r	3.4952
233.00	5	1.0607				
234.00	7	1.4142				
235.00	131	9.8998				
238.00	58720	2262.1514				
232.00	17	4.9498				
236.00	6	2.8284				
U 238	53182	648.9095	1.645E+04	200.8989	ng/l	1.2211
U 238	53040	636.2856	1.647E+04	197.6485	ng/l	1.2000

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010578

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: lcsw-f10w2 df10
Sample Description:
Sample Type: Sample
Sequence Number: 246
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:21:00 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	56267	3793.4053	0	0.0000
U 238	56109	3780.2373	0	0.0000
Bi 209	21970	1250.0679	0	0.0000
Bi 209	21970	1250.0679	0	0.0000
233.00	11	4.2426	0	0.0000
234.00	5	1.4142	0	0.0000
235.00	142	1.4158	0	0.0000
238.00	61555	665.8239	0	0.0000
232.00	54004	3109.9263	0	0.0000
236.00	7	2.8284	0	0.0000
U 238	56159	592.2820	0	0.0000
U 238	56001	587.6996	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.5611	0.1727	1.932E+04	1303.5549	ng/l	6.7460
U 238]	2.5539	0.1721	1.934E+04	1303.3832	ng/l	6.7392
Bi 209 <]	21970	1250.0679			ions/sec	
Bi 209	21970	1250.0679	88.0732	5.0146	%r	5.6937
233.00	11	4.2426				
234.00	5	1.4142				
235.00	142	1.4158				
238.00	61555	665.8239				
232.00	54004	3109.9263				
236.00	7	2.8284				
U 238	56159	592.2820	1.737E+04	183.3674	ng/l	1.0554
U 238	56001	587.6996	1.739E+04	182.5563	ng/l	1.0498

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010579

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226227 df100
Sample Description:
Sample Type: Sample
Sequence Number: 247
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:23:33 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	6240	58.4369	0	0.0000
U 238	6198	58.0788	0	0.0000
Bi 209	22446	371.8714	0	0.0000
Bi 209	22446	371.8714	0	0.0000
233.00	4	1.0607	0	0.0000
234.00	5	2.1213	0	0.0000
235.00	34	2.8284	0	0.0000
238.00	6644	85.3442	0	0.0000
232.00	27	1.0607	0	0.0000
236.00	5	0.3536	0	0.0000
U 238	6240	44.9117	0	0.0000
U 238	6197	44.6642	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.2780	2.603E-03	2086.9385	19.6550	ng/l	0.9418
U 238	0.2761	2.587E-03	2086.2874	19.6000	ng/l	0.9395
Bi 209	22446	371.8714			ions/sec	
Bi 209	22446	371.8714	89.9839	1.4917	%r	1.6578
233.00	4	1.0607				
234.00	5	2.1213				
235.00	34	2.8284				
238.00	6644	85.3442				
232.00	27	1.0607				
236.00	5	0.3536				
U 238	6240	44.9117	1919.6042	13.9044	ng/l	0.7243
U 238	6197	44.6642	1919.6464	13.8740	ng/l	0.7227

JR 6/17/03

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010580

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226229 df10
Sample Description:
Sample Type: Sample
Sequence Number: 248
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:26:06 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	15300	59.0534	0	0.0000
U 238	15220	53.1248	0	0.0000
Bi 209	21100	546.2174	0	0.0000
Bi 209	21100	546.2174	0	0.0000
233.00	5	0.7071	0	0.0000
234.00	6	1.0607	0	0.0000
235.00	69	6.3640	0	0.0000
238.00	16329	167.7114	0	0.0000
232.00	39	13.4351	0	0.0000
236.00	6	0.3536	0	0.0000
U 238	15300	455.1858	0	0.0000
U 238	15221	447.0255	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	0.7251	2.799E-03	5462.4204	21.1298	ng/l	0.3868
U 238 ┘	0.7213	2.518E-03	5458.7378	19.0722	ng/l	0.3494
Bi 209 <┘	21100	546.2174			ions/sec	
Bi 209	21100	546.2174	84.5829	2.1911	%r	2.5905
233.00	5	0.7071				
234.00	6	1.0607				
235.00	69	6.3640				
238.00	16329	167.7114				
232.00	39	13.4351				
236.00	6	0.3536				
U 238	15300	455.1858	4724.7612	140.9231	ng/l	2.9827
U 238	15221	447.0255	4722.5225	138.8589	ng/l	2.9404

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010581

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226231 df10
Sample Description:
Sample Type: Sample
Sequence Number: 249
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:28:40 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	105149	917.6559	0	0.0000
U 238	104673	928.1301	0	0.0000
Bi 209	19980	705.3929	0	0.0000
Bi 209	19980	705.3929	0	0.0000
233.00	5	3.1820	0	0.0000
234.00	10	2.1213	0	0.0000
235.00	461	10.6075	0	0.0000
238.00	114099	7102.3242	0	0.0000
232.00	17	2.1213	0	0.0000
236.00	17	3.5355	0	0.0000
U 238	105165	4629.4590	0	0.0000
U 238	104690	4624.0142	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	5.2627	0.0459	3.972E+04	346.7463	ng/l	0.8730
U 238 ┘	5.2389	0.0465	3.968E+04	351.8794	ng/l	0.8868
Bi 209 <┘	19980	705.3929			ions/sec	
Bi 209	19980	705.3929	80.0910	2.8296	%r	3.5330
233.00	5	3.1820				
234.00	10	2.1213				
235.00	461	10.6075				
238.00	114099	7102.3242				
232.00	17	2.1213				
236.00	17	3.5355				
U 238	105165	4629.4590	3.255E+04	1433.2559	ng/l	4.4037
U 238	104690	4624.0142	3.251E+04	1436.3507	ng/l	4.4176

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010582

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 223232 df10
Sample Description:
Sample Type: Sample
Sequence Number: 250
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:31:15 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	235748	9946.8438	0	0.0000
U 238	234596	9928.0137	0	0.0000
Bi 209	18809	1133.0233	0	0.0000
Bi 209	18809	1133.0233	0	0.0000
233.00	5	1.0607	0	0.0000
234.00	14	0.3535	0	0.0000
235.00	1133	50.2146	0	0.0000
238.00	260647	4656.0571	0	0.0000
232.00	16	0.7071	0	0.0000
236.00	32	2.1213	0	0.0000
U 238	235448	4253.6729	0	0.0000
U 238	234297	4202.3374	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	12.5337	0.5288	9.461E+04	3992.5078	ng/l	4.2198
U 238	12.4724	0.5278	9.447E+04	3998.3042	ng/l	4.2322
Bi 209 <	18809	1133.0233			ions/sec	
Bi 209	18809	1133.0233	75.3937	4.5451	%r	6.0284
233.00	5	1.0607				
234.00	14	0.3535				
235.00	1133	50.2146				
238.00	260647	4656.0571				
232.00	16	0.7071				
236.00	32	2.1213				
U 238	235448	4253.6729	7.288E+04	1316.9146	ng/l	1.8069
U 238	234297	4202.3374	7.277E+04	1305.3658	ng/l	1.7937

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010583

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 223234 df10
Sample Description:
Sample Type: Sample
Sequence Number: 251
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:33:50 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	81017	523.2881	0	0.0000
U 238	80805	533.7005	0	0.0000
Bi 209	18660	611.5895	0	0.0000
Bi 209	18660	611.5895	0	0.0000
233.00	4	0.7071	0	0.0000
234.00	7	3.1820	0	0.0000
235.00	203	11.3141	0	0.0000
238.00	88013	1886.8204	0	0.0000
232.00	10	2.8284	0	0.0000
236.00	6	0.7071	0	0.0000
U 238	81009	2130.6143	0	0.0000
U 238	80796	2115.7297	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	4.3419	0.0280	3.277E+04	211.7229	ng/l	0.6461
U 238	4.3305	0.0286	3.280E+04	216.6594	ng/l	0.6606
Bi 209 <	18660	611.5895			ions/sec	
Bi 209	18660	611.5895	74.7939	2.4534	%r	3.2802
233.00	4	0.7071				
234.00	7	3.1820				
235.00	203	11.3141				
238.00	88013	1886.8204				
232.00	10	2.8284				
236.00	6	0.7071				
U 238	81009	2130.6143	2.507E+04	659.6268	ng/l	2.6314
U 238	80796	2115.7297	2.509E+04	657.2060	ng/l	2.6192

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010584

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 252
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:36:25 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	39822	334.8981	0	0.0000
U 238	39709	344.0053	0	0.0000
Bi 209	21370	990.1698	0	0.0000
Bi 209	21370	990.1698	0	0.0000
233.00	9	0.7071	0	0.0000
234.00	6	2.1213	0	0.0000
235.00	100	12.7281	0	0.0000
238.00	42257	161.3105	0	0.0000
232.00	36828	1694.2823	0	0.0000
236.00	8	1.4142	0	0.0000
U 238	39814	1510.2172	0	0.0000
U 238	39701	1496.0281	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	1.8635	0.0157	1.406E+04	118.3163	ng/l	0.8417
U 238]	1.8582	0.0161	1.407E+04	121.9411	ng/l	0.8666
Bi 209 <]	21370	990.1698			ions/sec	
Bi 209	21370	990.1698	85.6651	3.9720	%r	4.6367
233.00	9	0.7071				
234.00	6	2.1213				
235.00	100	12.7281				
238.00	42257	161.3105				
232.00	36828	1694.2823				
236.00	8	1.4142				
U 238	39814	1510.2172	1.231E+04	467.5552	ng/l	3.7969
U 238	39701	1496.0281	1.233E+04	464.7090	ng/l	3.7699

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010585

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 253
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:39:00 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	45	6.8644	0	0.0000
U 238	30	1.6373	0	0.0000
Bi 209	22092	420.9467	0	0.0000
Bi 209	22092	420.9467	0	0.0000
233.00	6	1.0607	0	0.0000
234.00	5	2.1213	0	0.0000
235.00	4	1.7678	0	0.0000
238.00	34	6.0104	0	0.0000
232.00	19	3.5355	0	0.0000
236.00	5	3.8891	0	0.0000
U 238	45	6.0104	0	0.0000
U 238	30	1.0607	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.029E-03	3.107E-04	3.4208	2.3458	ng/l	68.5766
U 238	1.370E-03	7.412E-05	5.0576	0.5614	ng/l	11.1006
Bi 209	22092	420.9467			ions/sec	
Bi 209	22092	420.9467	88.5623	1.6886	%r	1.9067
233.00	6	1.0607				
234.00	5	2.1213				
235.00	4	1.7678				
238.00	34	6.0104				
232.00	19	3.5355				
236.00	5	3.8891				
U 238	45	6.0104	1.7028	1.8608	ng/l	109.2792
U 238	30	1.0607	3.9605	0.3295	ng/l	8.3189

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010586

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: lcsw-f10w3 df10
Sample Description:
Sample Type: Sample
Sequence Number: 254
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:41:35 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	54362	698.4556	0	0.0000
U 238	54202	688.5491	0	0.0000
Bi 209	21427	948.5714	0	0.0000
Bi 209	21427	948.5714	0	0.0000
233.00	9	2.1213	0	0.0000
234.00	4	0.3535	0	0.0000
235.00	147	0.7103	0	0.0000
238.00	60507	1714.4633	0	0.0000
232.00	52676	2475.7466	0	0.0000
236.00	5	1.4142	0	0.0000
U 238	54347	1708.7842	0	0.0000
U 238	54186	1711.1377	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.5371	0.0326	1.914E+04	246.0959	ng/l	1.2856
U 238]	2.5296	0.0321	1.916E+04	243.4185	ng/l	1.2707
Bi 209 <-	21427	948.5714			ions/sec	
Bi 209	21427	948.5714	85.8956	3.8051	%r	4.4300
233.00	9	2.1213				
234.00	4	0.3535				
235.00	147	0.7103				
238.00	60507	1714.4633				
232.00	52676	2475.7466				
236.00	5	1.4142				
U 238	54347	1708.7842	1.681E+04	529.0305	ng/l	3.1465
U 238	54186	1711.1377	1.683E+04	531.5282	ng/l	3.1589

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010587

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226244 df10
Sample Description:
Sample Type: Sample
Sequence Number: 255
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:44:11 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	93024	2711.2737	0	0.0000
U 238	92773	2737.2100	0	0.0000
Bi 209	19301	846.8018	0	0.0000
Bi 209	19301	846.8018	0	0.0000
233.00	4	2.1213	0	0.0000
234.00	4	1.7678	0	0.0000
235.00	244	36.7711	0	0.0000
238.00	102080	2930.5820	0	0.0000
232.00	20	3.1820	0	0.0000
236.00	7	2.4749	0	0.0000
U 238	92965	1369.9559	0	0.0000
U 238	92713	1333.1725	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	┐	4.8196	0.1405	3.637E+04	1060.5295	ng/l	2.9155
U 238	┘	4.8066	0.1418	3.640E+04	1074.2627	ng/l	2.9509
Bi 209	<┘	19301	846.8018			ions/sec	
Bi 209		19301	846.8018	77.3669	3.3969	%r	4.3906
233.00		4	2.1213				
234.00		4	1.7678				
235.00		244	36.7711				
238.00		102080	2930.5820				
232.00		20	3.1820				
236.00		7	2.4749				
U 238		92965	1369.9559	2.877E+04	424.1311	ng/l	1.4743
U 238		92713	1333.1725	2.879E+04	414.1214	ng/l	1.4382

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010588

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226246 df50
Sample Description:
Sample Type: Sample
Sequence Number: 256
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:45:59 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	41811	396.6416	0	0.0000
U 238	41691	407.1686	0	0.0000
Bi 209	19359	455.1558	0	0.0000
Bi 209	19359	455.1558	0	0.0000
233.00	4	0.3536	0	0.0000
234.00	6	0.0000	0	0.0000
235.00	111	13.0817	0	0.0000
238.00	45667	1862.2919	0	0.0000
232.00	10	3.8891	0	0.0000
236.00	6	0.0000	0	0.0000
U 238	41807	586.6412	0	0.0000
U 238	41686	573.0493	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.1598	0.0205	1.629E+04	154.6863	ng/l	0.9493
U 238]	2.1536	0.0210	1.631E+04	159.3239	ng/l	0.9770
Bi 209 <]	19359	455.1558			ions/sec	
Bi 209	19359	455.1558	77.5982	1.8258	%r	2.3529
233.00	4	0.3536				
234.00	6	0.0000				
235.00	111	13.0817				
238.00	45667	1862.2919				
232.00	10	3.8891				
236.00	6	0.0000				
U 238	41807	586.6412	1.293E+04	181.6210	ng/l	1.4045
U 238	41686	573.0493	1.294E+04	178.0054	ng/l	1.3753

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010589

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 257
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:47:36 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	39403	1482.3840	0	0.0000
U 238	39295	1477.0685	0	0.0000
Bi 209	21693	1121.8525	0	0.0000
Bi 209	21693	1121.8525	0	0.0000
233.00	7	1.0607	0	0.0000
234.00	5	1.4142	0	0.0000
235.00	97	2.8287	0	0.0000
238.00	41586	519.9283	0	0.0000
232.00	36034	1720.9194	0	0.0000
236.00	4	1.7678	0	0.0000
U 238	39365	555.1992	0	0.0000
U 238	39257	554.7279	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.8164	0.0683	1.370E+04	515.9026	ng/l	3.7653
U 238	1.8114	0.0681	1.372E+04	515.7754	ng/l	3.7604
Bi 209 <	21693	1121.8525			ions/sec	
Bi 209	21693	1121.8525	86.9628	4.5003	%r	5.1749
233.00	7	1.0607				
234.00	5	1.4142				
235.00	97	2.8287				
238.00	41586	519.9283				
232.00	36034	1720.9194				
236.00	4	1.7678				
U 238	39365	555.1992	1.218E+04	171.8867	ng/l	1.4118
U 238	39257	554.7279	1.219E+04	172.3143	ng/l	1.4137

QUANTITATIVE ANALYSIS: SUMMARY REPORT

Data Set: june03-misc4
Data Set Description:
Parameter File: u_tot_in

010590

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 258
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:49:12 Jun 12 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	64	8.1258	0	0.0000
U 238	49	10.0878	0	0.0000
Bi 209	22091	242.5932	0	0.0000
Bi 209	22091	242.5932	0	0.0000
233.00	6	0.3536	0	0.0000
234.00	4	0.7071	0	0.0000
235.00	5	1.7678	0	0.0000
238.00	51	7.4247	0	0.0000
232.00	93	57.6302	0	0.0000
236.00	6	2.8284	0	0.0000
U 238	64	7.4247	0	0.0000
U 238	49	9.5460	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	2.888E-03	3.678E-04	9.9073	2.7770	ng/l	28.0295
U 238	]	2.232E-03	4.566E-04	11.5865	3.4591	ng/l	29.8541
Bi 209	<]	22091	242.5932			ions/sec	
Bi 209		22091	242.5932	88.5602	0.9732	%r	1.0989
233.00		6	0.3536				
234.00		4	0.7071				
235.00		5	1.7678				
238.00		51	7.4247				
232.00		93	57.6302				
236.00		6	2.8284				
U 238		64	7.4247	7.5851	2.2986	ng/l	30.3046
U 238		49	9.5460	9.8625	2.9653	ng/l	30.0660

010591

tot U ANALYSIS

PROJ. NO.	PROJECT	TO#	DATE	MATRIX	LOGBK PG
06002.01.071	Div 02 20	030520-13	~~4/20/03~~ 6/19/03 CO	Liq	5A 071
					5A 072

INSTRUMENT: ICP MS FILENAME: 052013C.prn

INSTRUMENT DL:

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010592

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: u_di
Sample Description:
Sample Type: Standard
Sequence Number: 229
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:05:28 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

Cordura 6/20/03

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	280	5.1593	0	0.0000
U 238	97	0.7236	0	0.0000
Bi 209	108	3.8892	0	0.0000
Bi 209	108	3.8892	0	0.0000
233.00	58	0.7074	0	0.0000
234.00	65	5.6569	0	0.0000
235.00	61	5.6569	0	0.0000
238.00	105	4.2427	0	0.0000
232.00	109	10.6068	0	0.0000
236.00	58	2.1213	0	0.0000
U 238	280	4.9487	0	0.0000
U 238	98	4.2427	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.	% RSD
U 238]	2.5995	0.0479			
U 238]	0.9048	6.715E-03			
Bi 209 <]	108	3.8892			ions/sec
Bi 209	108	3.8892			%r
233.00	58	0.7074			
234.00	65	5.6569			
235.00	61	5.6569			
238.00	105	4.2427			
232.00	109	10.6068			
236.00	58	2.1213			
U 238	280	4.9487			
U 238	98	4.2427			

	Entered Conc.
U 238]	
U 238]	
Bi 209 <]	0.0000
Bi 209	0.0000
233.00	
234.00	
235.00	
238.00	
232.00	
236.00	
U 238	
U 238	

6/23/03

Scanned 6/30/03

052013C.prn

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010593

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: u_s0
Sample Description:
Sample Type: Standard
Sequence Number: 230
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:08:01 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	671	48.7204	0	0.0000
U 238	517	43.3924	0	0.0000
Bi 209	79249	3455.5977	0	0.0000
Bi 209	79249	3455.5977	0	0.0000
233.00	51	5.3033	0	0.0000
234.00	51	11.6674	0	0.0000
235.00	53	4.9498	0	0.0000
238.00	506	20.5072	0	0.0000
232.00	96	1.4142	0	0.0000
236.00	57	0.7068	0	0.0000
U 238	670	19.4457	0	0.0000
U 238	516	20.8615	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	8.471E-03	6.148E-04			ng/l	
U 238	]	6.520E-03	5.475E-04			ng/l	
Bi 209	<]	79249	3455.5977			ions/sec	
Bi 209		79249	3455.5977	100.0000	4.3664	%r	4.3664
233.00		51	5.3033				
234.00		51	11.6674				
235.00		53	4.9498				
238.00		506	20.5072				
232.00		96	1.4142				
236.00		57	0.7068				
U 238		670	19.4457			ng/l	
U 238		516	20.8615			ng/l	

		Entered Conc.
U 238	]	0.0000
U 238	]	0.0000
Bi 209	<]	100.0000
Bi 209		100.0000
233.00		
234.00		
235.00		
238.00		
232.00		
236.00		
U 238		0.0000
U 238		0.0000

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010594

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: u_10
Sample Description:
Sample Type: Standard
Sequence Number: 231
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:10:36 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	82220	3777.1609	0	0.0000
U 238	81826	3777.0671	0	0.0000
Bi 209	78071	1078.8682	0	0.0000
Bi 209	78071	1078.8682	0	0.0000
233.00	52	0.7071	0	0.0000
234.00	57	4.9498	0	0.0000
235.00	286	0.3280	0	0.0000
238.00	83557	63.6300	0	0.0000
232.00	186	0.3536	0	0.0000
236.00	63	12.0209	0	0.0000
U 238	82194	2640.8933	0	0.0000
U 238	81800	2646.2036	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	1.0531	0.0484	1.000E+04	463.1234	ng/l	4.6312
U 238	]	1.0481	0.0484	1.000E+04	464.4869	ng/l	4.6449
Bi 209	<	78071	1078.8682			ions/sec	
Bi 209		78071	1078.8682	98.5117	1.3632	%r	1.3838
233.00		52	0.7071				
234.00		57	4.9498				
235.00		286	0.3280				
238.00		83557	63.6300				
232.00		186	0.3536				
236.00		63	12.0209				
U 238		82194	2640.8933	1.000E+04	323.9429	ng/l	3.2394
U 238		81800	2646.2036	1.000E+04	325.5498	ng/l	3.2555

		Entered Conc.
U 238	]	1.000E+04
U 238	]	1.000E+04
Bi 209	<	
Bi 209		
233.00		
234.00		
235.00		
238.00		
232.00		
236.00		
U 238		1.000E+04
U 238		1.000E+04

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010595

TV = 20ppb
Cordova
6/20/03

Data Set:	june03-misc6
Data Set Description:	
Parameter File:	u_tot_in
Sample ID:	icv
Sample Description:	
Sample Type:	Sample
Sequence Number:	232
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	2
Time:	20:13:11 Jun 19 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88
Calibration File:	[Untitled]
Calibration:	External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	155631	2438.7625	0	0.0000
U 238	155132	2407.8992	0	0.0000
Bi 209	76420	794.0478	0	0.0000
Bi 209	76420	794.0478	0	0.0000
233.00	53	1.0605	0	0.0000
234.00	55	5.3033	0	0.0000
235.00	391	31.4684	0	0.0000
238.00	158645	920.8849	0	0.0000
232.00	161943	3121.2095	0	0.0000
236.00	49	2.1213	0	0.0000
U 238	155618	821.5102	0	0.0000
U 238	155119	797.0198	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.0365	0.0319	1.941E+04	305.4794	ng/l	1.5736
U 238	2.0300	0.0315	1.943E+04	302.5090	ng/l	1.5572
Bi 209 <	76420	794.0478			ions/sec	
Bi 209	76420	794.0478	96.4259	1.0033	%r	1.0405
233.00	53	1.0605				
234.00	55	5.3033				
235.00	391	31.4684				
238.00	158645	920.8849				
232.00	161943	3121.2095				
236.00	49	2.1213				
U 238	155618	821.5102	1.901E+04	100.7699	ng/l	0.5302
U 238	155119	797.0198	1.902E+04	98.0535	ng/l	0.5155

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010596

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: icb
Sample Description:
Sample Type: Sample
Sequence Number: 233
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:15:46 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	667	2.1477	0	0.0000
U 238	520	6.9001	0	0.0000
Bi 209	77970	661.2885	0	0.0000
Bi 209	77970	661.2885	0	0.0000
233.00	44	3.1820	0	0.0000
234.00	50	2.1212	0	0.0000
235.00	52	4.5962	0	0.0000
238.00	523	48.0877	0	0.0000
232.00	110	6.7178	0	0.0000
236.00	46	2.8284	0	0.0000
U 238	667	7.7824	0	0.0000
U 238	521	11.3147	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	8.548E-03	2.755E-05	0.7383	0.2637	ng/l	35.7131
U 238	6.676E-03	8.850E-05	1.4917	0.8496	ng/l	56.9571
Bi 209	77970	661.2885			ions/sec	
Bi 209	77970	661.2885	98.3839	0.8356	%r	0.8493
233.00	44	3.1820				
234.00	50	2.1212				
235.00	52	4.5962				
238.00	523	48.0877				
232.00	110	6.7178				
236.00	46	2.8284				
U 238	667	7.7824	-0.4600	0.9546	ng/l	207.5486
U 238	521	11.3147	0.5844	1.3920	ng/l	238.1837

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010597

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226236 df50
Sample Description:
Sample Type: Sample
Sequence Number: 234
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:18:22 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	127331	1330.4868	0	0.0000
U 238	126902	1364.2897	0	0.0000
Bi 209	73882	3864.9683	0	0.0000
Bi 209	73882	3864.9683	0	0.0000
233.00	46	2.8284	0	0.0000
234.00	44	3.1820	0	0.0000
235.00	338	12.7279	0	0.0000
238.00	126439	7047.1147	0	0.0000
232.00	72	1.0602	0	0.0000
236.00	54	3.8891	0	0.0000
U 238	127366	7991.2285	0	0.0000
U 238	126938	8003.5205	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	1.7234	0.0180	1.642E+04	172.3827	ng/l	1.0501
U 238]	1.7176	0.0185	1.643E+04	177.2871	ng/l	1.0792
Bi 209 <	73882	3864.9683			ions/sec	
Bi 209	73882	3864.9683	93.2185	4.8837	%r	5.2389
233.00	46	2.8284				
234.00	44	3.1820				
235.00	338	12.7279				
238.00	126439	7047.1147				
232.00	72	1.0602				
236.00	54	3.8891				
U 238	127366	7991.2285	1.554E+04	980.2373	ng/l	6.3074
U 238	126938	8003.5205	1.555E+04	984.6348	ng/l	6.3308

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010598

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226237 df50
Sample Description:
Sample Type: Sample
Sequence Number: 235
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:20:58 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	148367	1676.2413	0	0.0000
U 238	147868	1643.9249	0	0.0000
Bi 209	75167	3385.4285	0	0.0000
Bi 209	75167	3385.4285	0	0.0000
233.00	59	3.1820	0	0.0000
234.00	59	7.7782	0	0.0000
235.00	381	1.0607	0	0.0000
238.00	146223	4060.1851	0	0.0000
232.00	80	9.8996	0	0.0000
236.00	63	9.5460	0	0.0000
U 238	148330	5006.2046	0	0.0000
U 238	147831	5016.2378	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.9738	0.0223	1.881E+04	213.4649	ng/l	1.1347
U 238	1.9672	0.0219	1.882E+04	209.9710	ng/l	1.1154
Bi 209	75167	3385.4285			ions/sec	
Bi 209	75167	3385.4285	94.8432	4.2777	%r	4.5103
233.00	59	3.1820				
234.00	59	7.7782				
235.00	381	1.0607				
238.00	146223	4060.1851				
232.00	80	9.8996				
236.00	63	9.5460				
U 238	148330	5006.2046	1.811E+04	614.0818	ng/l	3.3904
U 238	147831	5016.2378	1.812E+04	617.1237	ng/l	3.4051

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010599

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226238 df50
Sample Description:
Sample Type: Sample
Sequence Number: 236
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:23:34 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	246187	4283.7920	0	0.0000
U 238	245470	4280.9028	0	0.0000
Bi 209	75297	77.7375	0	0.0000
Bi 209	75297	77.7375	0	0.0000
233.00	50	8.4853	0	0.0000
234.00	56	3.1820	0	0.0000
235.00	612	7.7790	0	0.0000
238.00	246843	9308.1494	0	0.0000
232.00	119	3.1820	0	0.0000
236.00	56	0.3530	0	0.0000
U 238	246189	4536.7290	0	0.0000
U 238	245472	4534.2954	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	3.2695	0.0569	3.122E+04	544.5879	ng/l	1.7446
U 238	3.2600	0.0569	3.124E+04	545.8365	ng/l	1.7475
Bi 209 <	75297	77.7375			ions/sec	
Bi 209	75297	77.7375	95.0074	0.0982	%r	0.1034
233.00	50	8.4853				
234.00	56	3.1820				
235.00	612	7.7790				
238.00	246843	9308.1494				
232.00	119	3.1820				
236.00	56	0.3530				
U 238	246189	4536.7290	3.012E+04	556.4940	ng/l	1.8478
U 238	245472	4534.2954	3.014E+04	557.8326	ng/l	1.8511

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010600

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226240 df50
Sample Description:
Sample Type: Sample
Sequence Number: 237
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:26:10 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	216556	2.153E+04	0	0.0000
U 238	215945	2.149E+04	0	0.0000
Bi 209	76573	3449.5010	0	0.0000
Bi 209	76573	3449.5010	0	0.0000
233.00	50	10.6067	0	0.0000
234.00	48	0.3530	0	0.0000
235.00	513	19.0936	0	0.0000
238.00	215879	1116.4865	0	0.0000
232.00	71	4.5964	0	0.0000
236.00	58	3.8891	0	0.0000
U 238	216071	1.177E+04	0	0.0000
U 238	215460	1.176E+04	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.8281	0.2811	2.699E+04	2691.0901	ng/l	9.9705
U 238	2.8201	0.2807	2.701E+04	2694.6057	ng/l	9.9753
Bi 209	76573	3449.5010			ions/sec	
Bi 209	76573	3449.5010	96.6186	4.3587	%r	4.5112
233.00	50	10.6067				
234.00	48	0.3530				
235.00	513	19.0936				
238.00	215879	1116.4865				
232.00	71	4.5964				
236.00	58	3.8891				
U 238	216071	1.177E+04	2.642E+04	1443.9803	ng/l	5.4651
U 238	215460	1.176E+04	2.644E+04	1447.2648	ng/l	5.4730

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010601

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226246 df50
Sample Description:
Sample Type: Sample
Sequence Number: 238
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:28:47 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	128299	4353.5518	0	0.0000
U 238	127868	4302.0737	0	0.0000
Bi 209	73973	3481.9543	0	0.0000
Bi 209	73973	3481.9543	0	0.0000
233.00	51	3.1821	0	0.0000
234.00	52	15.9100	0	0.0000
235.00	327	12.0215	0	0.0000
238.00	130799	2516.6621	0	0.0000
232.00	64	3.5356	0	0.0000
236.00	47	4.5962	0	0.0000
U 238	128196	1685.4703	0	0.0000
U 238	127767	1716.2697	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.7344	0.0589	1.652E+04	563.3677	ng/l	3.4099
U 238	1.7286	0.0582	1.653E+04	558.3591	ng/l	3.3772
Bi 209	73973	3481.9543			ions/sec	
Bi 209	73973	3481.9543	93.3335	4.3997	%r	4.7139
233.00	51	3.1821				
234.00	52	15.9100				
235.00	327	12.0215				
238.00	130799	2516.6621				
232.00	64	3.5356				
236.00	47	4.5962				
U 238	128196	1685.4703	1.564E+04	206.7468	ng/l	1.3217
U 238	127767	1716.2697	1.566E+04	211.1444	ng/l	1.3487

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010602

Data Set:	june03-misc6
Data Set Description:	
Parameter File:	u_tot_in
Sample ID:	226247 df50
Sample Description:	
Sample Type:	Sample
Sequence Number:	239
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	2
Time:	20:31:24 Jun 19 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88
Calibration File:	[Untitled]
Calibration:	External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	190866	3126.3433	0	0.0000
U 238	190288	3091.2134	0	0.0000
Bi 209	75317	2566.4138	0	0.0000
Bi 209	75317	2566.4138	0	0.0000
233.00	52	2.8284	0	0.0000
234.00	48	6.0105	0	0.0000
235.00	478	8.1324	0	0.0000
238.00	201378	7850.4985	0	0.0000
232.00	60	3.8891	0	0.0000
236.00	45	6.3640	0	0.0000
U 238	190812	3376.0591	0	0.0000
U 238	190235	3392.4773	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.5342	0.0415	2.418E+04	397.3412	ng/l	1.6435
U 238	2.5265	0.0410	2.419E+04	394.0429	ng/l	1.6287
Bi 209	75317	2566.4138			ions/sec	
Bi 209	75317	2566.4138	95.0321	3.2428	%r	3.4124
233.00	52	2.8284				
234.00	48	6.0105				
235.00	478	8.1324				
238.00	201378	7850.4985				
232.00	60	3.8891				
236.00	45	6.3640				
U 238	190812	3376.0591	2.332E+04	414.1214	ng/l	1.7755
U 238	190235	3392.4773	2.334E+04	417.3602	ng/l	1.7882

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010603

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: pbw-f17w2
Sample Description:
Sample Type: Sample
Sequence Number: 240
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:34:02 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	655	3.9510	0	0.0000
U 238	519	18.1380	0	0.0000
Bi 209	73785	3986.1001	0	0.0000
Bi 209	73785	3986.1001	0	0.0000
233.00	40	6.7176	0	0.0000
234.00	45	4.2427	0	0.0000
235.00	52	10.6067	0	0.0000
238.00	558	6.3646	0	0.0000
232.00	64	10.2532	0	0.0000
236.00	47	1.4142	0	0.0000
U 238	655	31.4666	0	0.0000
U 238	519	9.8972	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	8.882E-03	5.355E-05	3.9340	0.5126	ng/l	13.0293
U 238]	7.034E-03	2.458E-04	4.9334	2.3601	ng/l	47.8384
Bi 209 <]	73785	3986.1001			ions/sec	
Bi 209	73785	3986.1001	93.0969	5.0367	%r	5.4102
233.00	40	6.7176				
234.00	45	4.2427				
235.00	52	10.6067				
238.00	558	6.3646				
232.00	64	10.2532				
236.00	47	1.4142				
U 238	655	31.4666	-1.8400	3.8598	ng/l	209.7783
U 238	519	9.8972	0.3383	1.2176	ng/l	359.8664

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010604

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: lcsw-f17w2 df20
Sample Description:
Sample Type: Sample
Sequence Number: 241
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:36:37 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	81821	866.8636	0	0.0000
U 238	81489	857.1992	0	0.0000
Bi 209	76553	1155.6224	0	0.0000
Bi 209	76553	1155.6224	0	0.0000
233.00	49	5.6569	0	0.0000
234.00	54	0.0000	0	0.0000
235.00	230	1.4143	0	0.0000
238.00	86103	6.9276	0	0.0000
232.00	82640	1523.8151	0	0.0000
236.00	41	6.7176	0	0.0000
U 238	81815	368.2686	0	0.0000
U 238	81482	373.7059	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.0688	0.0113	1.015E+04	108.3946	ng/l	1.0679
U 238	1.0645	0.0112	1.016E+04	107.5044	ng/l	1.0584
Bi 209	76553	1155.6224			ions/sec	
Bi 209	76553	1155.6224	96.5940	1.4602	%r	1.5117
233.00	49	5.6569				
234.00	54	0.0000				
235.00	230	1.4143				
238.00	86103	6.9276				
232.00	82640	1523.8151				
236.00	41	6.7176				
U 238	81815	368.2686	9953.5020	45.1734	ng/l	0.4538
U 238	81482	373.7059	9960.9004	45.9753	ng/l	0.4616

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010605

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226208 df20
Sample Description:
Sample Type: Sample
Sequence Number: 242
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:39:08 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	241317	1.532E+04	0	0.0000
U 238	240691	1.532E+04	0	0.0000
Bi 209	75156	7859.2627	0	0.0000
Bi 209	75156	7859.2627	0	0.0000
233.00	46	2.8284	0	0.0000
234.00	52	0.3530	0	0.0000
235.00	529	60.4630	0	0.0000
238.00	235879	4171.3442	0	0.0000
232.00	20440	444.9525	0	0.0000
236.00	49	0.7071	0	0.0000
U 238	240516	9911.9268	0	0.0000
U 238	239890	9848.5234	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	3.2109	0.2039	3.065E+04	1951.6354	ng/l	6.3665
U 238]	3.2026	0.2038	3.068E+04	1957.1213	ng/l	6.3782
Bi 209 <	75156	7859.2627			ions/sec	
Bi 209	75156	7859.2627	94.8286	9.9307	%r	10.4723
233.00	46	2.8284				
234.00	52	0.3530				
235.00	529	60.4630				
238.00	235879	4171.3442				
232.00	20440	444.9525				
236.00	49	0.7071				
U 238	240516	9911.9268	2.942E+04	1215.8381	ng/l	4.1326
U 238	239890	9848.5234	2.945E+04	1211.6167	ng/l	4.1143

QUANTITATIVE ANALYSIS: SUMMARY REPORT

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

010606

Sample ID: 226208d df20
Sample Description:
Sample Type: Sample
Sequence Number: 243
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:41:39 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	220218	5546.5342	0	0.0000
U 238	219592	5527.5171	0	0.0000
Bi 209	75386	5218.7686	0	0.0000
Bi 209	75386	5218.7686	0	0.0000
233.00	50	4.5962	0	0.0000
234.00	46	3.8891	0	0.0000
235.00	529	24.0439	0	0.0000
238.00	215504	733.6423	0	0.0000
232.00	70	1.4146	0	0.0000
236.00	47	6.7176	0	0.0000
U 238	220026	9698.3438	0	0.0000
U 238	219401	9674.5791	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.9212	0.0736	2.788E+04	704.2863	ng/l	2.5260
U 238 ┘	2.9129	0.0733	2.790E+04	703.9554	ng/l	2.5228
Bi 209 <┘	75386	5218.7686			ions/sec	
Bi 209	75386	5218.7686	95.1196	6.5943	%r	6.9326
233.00	50	4.5962				
234.00	46	3.8891				
235.00	529	24.0439				
238.00	215504	733.6423				
232.00	70	1.4146				
236.00	47	6.7176				
U 238	220026	9698.3438	2.691E+04	1189.6392	ng/l	4.4213
U 238	219401	9674.5791	2.693E+04	1190.2172	ng/l	4.4199

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010607

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 244
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:44:13 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	163318	2939.8440	0	0.0000
U 238	162807	2943.3364	0	0.0000
Bi 209	78103	2522.9902	0	0.0000
Bi 209	78103	2522.9902	0	0.0000
233.00	60	6.3640	0	0.0000
234.00	44	1.4142	0	0.0000
235.00	408	12.0217	0	0.0000
238.00	167182	1055.7692	0	0.0000
232.00	168737	1007.8541	0	0.0000
236.00	50	3.5356	0	0.0000
U 238	163271	2337.2014	0	0.0000
U 238	162760	2315.2842	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.0911	0.0376	1.994E+04	360.3114	ng/l	1.8074
U 238	2.0845	0.0377	1.995E+04	361.8105	ng/l	1.8135
Bi 209	78103	2522.9902			ions/sec	
Bi 209	78103	2522.9902	98.5520	3.1880	%r	3.2348
233.00	60	6.3640				
234.00	44	1.4142				
235.00	408	12.0217				
238.00	167182	1055.7692				
232.00	168737	1007.8541				
236.00	50	3.5356				
U 238	163271	2337.2014	1.995E+04	286.6908	ng/l	1.4374
U 238	162760	2315.2842	1.996E+04	284.8383	ng/l	1.4270

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010608

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 245
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:46:48 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	637	22.1236	0	0.0000
U 238	497	32.5621	0	0.0000
Bi 209	79287	3900.6868	0	0.0000
Bi 209	79287	3900.6868	0	0.0000
233.00	46	6.7176	0	0.0000
234.00	45	0.7071	0	0.0000
235.00	49	9.8996	0	0.0000
238.00	497	36.7728	0	0.0000
232.00	103	11.3139	0	0.0000
236.00	43	0.7071	0	0.0000
U 238	636	9.1905	0	0.0000
U 238	496	8.1343	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	8.029E-03	2.790E-04	-4.2366	2.6710	ng/l	63.0462
U 238	6.263E-03	4.107E-04	-2.4695	3.9429	ng/l	159.6638
Bi 209	79287	3900.6868			ions/sec	
Bi 209	79287	3900.6868	100.0479	4.9288	%r	4.9264
233.00	46	6.7176				
234.00	45	0.7071				
235.00	49	9.8996				
238.00	497	36.7728				
232.00	103	11.3139				
236.00	43	0.7071				
U 238	636	9.1905	-4.2015	1.1273	ng/l	26.8320
U 238	496	8.1343	-2.4607	1.0007	ng/l	40.6678

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010609

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226210 df20
Sample Description:
Sample Type: Sample
Sequence Number: 246
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:49:21 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	193254	1.664E+04	0	0.0000
U 238	192740	1.661E+04	0	0.0000
Bi 209	74392	3105.9333	0	0.0000
Bi 209	74392	3105.9333	0	0.0000
233.00	47	4.5962	0	0.0000
234.00	40	0.3540	0	0.0000
235.00	427	0.3146	0	0.0000
238.00	203568	6434.5200	0	0.0000
232.00	72	1.4138	0	0.0000
236.00	51	3.5356	0	0.0000
U 238	192906	8566.4902	0	0.0000
U 238	192393	8561.8564	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.5978	0.2236	2.479E+04	2140.5562	ng/l	8.6362
U 238]	2.5909	0.2233	2.481E+04	2143.4470	ng/l	8.6388
Bi 209 <	74392	3105.9333			ions/sec	
Bi 209	74392	3105.9333	93.8627	3.9246	%r	4.1812
233.00	47	4.5962				
234.00	40	0.3540				
235.00	427	0.3146				
238.00	203568	6434.5200				
232.00	72	1.4138				
236.00	51	3.5356				
U 238	192906	8566.4902	2.358E+04	1050.8013	ng/l	4.4562
U 238	192393	8561.8564	2.361E+04	1053.3242	ng/l	4.4622

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010610

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226212 df20
Sample Description:
Sample Type: Sample
Sequence Number: 247
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:51:54 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	177506	1.082E+04	0	0.0000
U 238	177025	1.083E+04	0	0.0000
Bi 209	75057	1773.6163	0	0.0000
Bi 209	75057	1773.6163	0	0.0000
233.00	41	6.0105	0	0.0000
234.00	42	4.2427	0	0.0000
235.00	399	18.3867	0	0.0000
238.00	186474	7759.4033	0	0.0000
232.00	59	5.3033	0	0.0000
236.00	42	4.2427	0	0.0000
U 238	177378	6624.7764	0	0.0000
U 238	176897	6644.9990	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.3650	0.1441	2.256E+04	1379.7106	ng/l	6.1165
U 238	2.3585	0.1443	2.258E+04	1384.9200	ng/l	6.1330
Bi 209	75057	1773.6163			ions/sec	
Bi 209	75057	1773.6163	94.7031	2.2411	%r	2.3664
233.00	41	6.0105				
234.00	42	4.2427				
235.00	399	18.3867				
238.00	186474	7759.4033				
232.00	59	5.3033				
236.00	42	4.2427				
U 238	177378	6624.7764	2.168E+04	812.6226	ng/l	3.7490
U 238	176897	6644.9990	2.170E+04	817.5024	ng/l	3.7674

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010611

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226231 df20
Sample Description:
Sample Type: Sample
Sequence Number: 248
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:54:27 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	163678	1.207E+04	0	0.0000
U 238	162930	1.202E+04	0	0.0000
Bi 209	149595	7841.7480	0	0.0000
Bi 209	149595	7841.7480	0	0.0000
233.00	43	2.4750	0	0.0000
234.00	47	6.3640	0	0.0000
235.00	657	19.4477	0	0.0000
238.00	169052	3620.7510	0	0.0000
232.00	151	6.3641	0	0.0000
236.00	63	4.9498	0	0.0000
U 238	163362	3489.6189	0	0.0000
U 238	162615	3474.8552	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.0941	0.0807	1.039E+04	772.3835	ng/l	7.4321
U 238	1.0891	0.0803	1.039E+04	771.1569	ng/l	7.4192
Bi 209	149595	7841.7480			ions/sec	
Bi 209	149595	7841.7480	188.8874	9.9086	%r	5.2458
233.00	43	2.4750				
234.00	47	6.3640				
235.00	657	19.4477				
238.00	169052	3620.7510				
232.00	151	6.3641				
236.00	63	4.9498				
U 238	163362	3489.6189	1.996E+04	428.0511	ng/l	2.1449
U 238	162615	3474.8552	1.994E+04	427.4948	ng/l	2.1437

6/23/03

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010612

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226234 df20
Sample Description:
Sample Type: Sample
Sequence Number: 249
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:57:00 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	128509	6671.7358	0	0.0000
U 238	128098	6648.1538	0	0.0000
Bi 209	76005	2566.8528	0	0.0000
Bi 209	76005	2566.8528	0	0.0000
233.00	49	6.0104	0	0.0000
234.00	46	3.8891	0	0.0000
235.00	315	19.8006	0	0.0000
238.00	133704	3368.7671	0	0.0000
232.00	56	2.4748	0	0.0000
236.00	48	8.4854	0	0.0000
U 238	128396	2331.9980	0	0.0000
U 238	127986	2321.9509	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.6908	0.0878	1.610E+04	840.2621	ng/l	5.2178
U 238	1.6854	0.0875	1.612E+04	839.7781	ng/l	5.2100
Bi 209	76005	2566.8528			ions/sec	
Bi 209	76005	2566.8528	95.9018	3.2434	%r	3.3820
233.00	49	6.0104				
234.00	46	3.8891				
235.00	315	19.8006				
238.00	133704	3368.7671				
232.00	56	2.4748				
236.00	48	8.4854				
U 238	128396	2331.9980	1.567E+04	286.0526	ng/l	1.8258
U 238	127986	2321.9509	1.568E+04	285.6585	ng/l	1.8216

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010613

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226244 df20
Sample Description:
Sample Type: Sample
Sequence Number: 250
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:59:34 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	155669	9832.6934	0	0.0000
U 238	155205	9797.7256	0	0.0000
Bi 209	75293	2474.6970	0	0.0000
Bi 209	75293	2474.6970	0	0.0000
233.00	45	0.7071	0	0.0000
234.00	48	2.1213	0	0.0000
235.00	371	16.6181	0	0.0000
238.00	151924	6433.9688	0	0.0000
232.00	54	6.0104	0	0.0000
236.00	44	3.1820	0	0.0000
U 238	155508	4716.7915	0	0.0000
U 238	155044	4697.5498	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.0675	0.1306	1.971E+04	1250.0859	ng/l	6.3424
U 238 ┘	2.0614	0.1301	1.973E+04	1249.3387	ng/l	6.3328
Bi 209 <┘	75293	2474.6970			ions/sec	
Bi 209	75293	2474.6970	95.0013	3.1270	%r	3.2915
233.00	45	0.7071				
234.00	48	2.1213				
235.00	371	16.6181				
238.00	151924	6433.9688				
232.00	54	6.0104				
236.00	44	3.1820				
U 238	155508	4716.7915	1.899E+04	578.5812	ng/l	3.0463
U 238	155044	4697.5498	1.901E+04	577.9171	ng/l	3.0399

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010614

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: pbw-f17w1
Sample Description:
Sample Type: Sample
Sequence Number: 251
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:02:09 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	740	35.8167	0	0.0000
U 238	592	36.9287	0	0.0000
Bi 209	76050	3426.2549	0	0.0000
Bi 209	76050	3426.2549	0	0.0000
233.00	50	10.2531	0	0.0000
234.00	49	2.1214	0	0.0000
235.00	49	0.3536	0	0.0000
238.00	524	3.8894	0	0.0000
232.00	55	2.1214	0	0.0000
236.00	41	3.8892	0	0.0000
U 238	739	2.4621	0	0.0000
U 238	591	10.2541	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	9.732E-03	4.710E-04	12.0642	4.5082	ng/l	37.3685
U 238 ┘	7.786E-03	4.856E-04	12.1507	4.6620	ng/l	38.3682
Bi 209 <┘	76050	3426.2549			ions/sec	
Bi 209	76050	3426.2549	95.9584	4.3293	%r	4.5117
233.00	50	10.2531				
234.00	49	2.1214				
235.00	49	0.3536				
238.00	524	3.8894				
232.00	55	2.1214				
236.00	41	3.8892				
U 238	739	2.4621	8.4647	0.3020	ng/l	3.5679
U 238	591	10.2541	9.2893	1.2615	ng/l	13.5803

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010615

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: lcsw-f17w1 df20
Sample Description:
Sample Type: Sample
Sequence Number: 252
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:04:44 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	83188	3668.7341	0	0.0000
U 238	82863	3657.7969	0	0.0000
Bi 209	80001	1994.2968	0	0.0000
Bi 209	80001	1994.2968	0	0.0000
233.00	52	6.7175	0	0.0000
234.00	38	1.0605	0	0.0000
235.00	235	5.3035	0	0.0000
238.00	90401	4119.4937	0	0.0000
232.00	83559	2099.4844	0	0.0000
236.00	41	3.1820	0	0.0000
U 238	83143	1594.6353	0	0.0000
U 238	82817	1591.6168	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	1.0398	0.0459	9872.6279	438.9745	ng/l	4.4464
U 238]	1.0358	0.0457	9881.6240	438.9653	ng/l	4.4422
Bi 209 <	80001	1994.2968			ions/sec	
Bi 209	80001	1994.2968	100.9510	2.5199	%r	2.4962
233.00	52	6.7175				
234.00	38	1.0605				
235.00	235	5.3035				
238.00	90401	4119.4937				
232.00	83559	2099.4844				
236.00	41	3.1820				
U 238	83143	1594.6353	1.012E+04	195.6046	ng/l	1.9335
U 238	82817	1591.6168	1.013E+04	195.8090	ng/l	1.9339

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010616

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226202 df10
Sample Description:
Sample Type: Sample
Sequence Number: 253
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:07:19 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	744	7.1609	0	0.0000
U 238	603	1.9599	0	0.0000
Bi 209	69933	1786.4260	0	0.0000
Bi 209	69933	1786.4260	0	0.0000
233.00	51	15.9101	0	0.0000
234.00	41	2.4748	0	0.0000
235.00	50	5.6569	0	0.0000
238.00	673	18.3847	0	0.0000
232.00	70	7.0712	0	0.0000
236.00	44	1.0608	0	0.0000
U 238	744	26.1625	0	0.0000
U 238	603	13.4337	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.0106	1.024E-04	20.7393	0.9802	ng/l	4.7262
U 238	8.616E-03	2.803E-05	20.1225	0.2691	ng/l	1.3371
Bi 209	69933	1786.4260			ions/sec	
Bi 209	69933	1786.4260	88.2296	2.2573	%r	2.5584
233.00	51	15.9101				
234.00	41	2.4748				
235.00	50	5.6569				
238.00	673	18.3847				
232.00	70	7.0712				
236.00	44	1.0608				
U 238	744	26.1625	9.0475	3.2092	ng/l	35.4706
U 238	603	13.4337	10.6735	1.6527	ng/l	15.4840

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010617

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226203 df10
Sample Description:
Sample Type: Sample
Sequence Number: 254
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:09:55 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	4364	142.7094	0	0.0000
U 238	4216	119.1381	0	0.0000
Bi 209	73333	6072.3784	0	0.0000
Bi 209	73333	6072.3784	0	0.0000
233.00	46	4.2427	0	0.0000
234.00	41	2.8284	0	0.0000
235.00	60	12.7281	0	0.0000
238.00	4259	104.0227	0	0.0000
232.00	60	1.0607	0	0.0000
236.00	45	1.7679	0	0.0000
U 238	4358	218.6632	0	0.0000
U 238	4211	229.9710	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	0.0595	1.946E-03	488.5535	18.6283	ng/l	3.8130
U 238]	0.0575	1.625E-03	489.3624	15.5977	ng/l	3.1873
Bi 209 <	73333	6072.3784			ions/sec	
Bi 209	73333	6072.3784	92.5250	7.6729	%r	8.2928
233.00	46	4.2427				
234.00	41	2.8284				
235.00	60	12.7281				
238.00	4259	104.0227				
232.00	60	1.0607				
236.00	45	1.7679				
U 238	4358	218.6632	452.3595	26.8221	ng/l	5.9294
U 238	4211	229.9710	454.6137	28.2922	ng/l	6.2234

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010618

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226204 df10
Sample Description:
Sample Type: Sample
Sequence Number: 255
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:12:32 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	19651	1346.3586	0	0.0000
U 238	19447	1343.5065	0	0.0000
Bi 209	72911	5208.5220	0	0.0000
Bi 209	72911	5208.5220	0	0.0000
233.00	40	3.1821	0	0.0000
234.00	50	12.0209	0	0.0000
235.00	114	20.5065	0	0.0000
238.00	19570	1281.4662	0	0.0000
232.00	59	7.4247	0	0.0000
236.00	54	1.4144	0	0.0000
U 238	19603	57.7980	0	0.0000
U 238	19399	44.9289	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.2695	0.0185	2498.8232	176.7619	ng/l	7.0738
U 238	0.2667	0.0184	2498.1965	176.9112	ng/l	7.0816
Bi 209	72911	5208.5220			ions/sec	
Bi 209	72911	5208.5220	91.9917	6.5813	%r	7.1543
233.00	40	3.1821				
234.00	50	12.0209				
235.00	114	20.5065				
238.00	19570	1281.4662				
232.00	59	7.4247				
236.00	54	1.4144				
U 238	19603	57.7980	2322.3132	7.0897	ng/l	0.3053
U 238	19399	44.9289	2323.1514	5.5274	ng/l	0.2379

QUANTITATIVE ANALYSIS: SUMMARY REPORT

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

010619

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 256
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:15:08 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	167692	6377.0776	0	0.0000
U 238	167143	6346.4116	0	0.0000
Bi 209	77511	3751.6545	0	0.0000
Bi 209	77511	3751.6545	0	0.0000
233.00	64	4.2427	0	0.0000
234.00	55	3.1819	0	0.0000
235.00	430	3.1781	0	0.0000
238.00	171611	3033.2671	0	0.0000
232.00	174186	5323.3130	0	0.0000
236.00	49	9.5460	0	0.0000
U 238	167538	1739.6624	0	0.0000
U 238	166989	1743.6591	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	2.1635	0.0823	2.063E+04	787.5474	ng/l	3.8178
U 238 ┘	2.1564	0.0819	2.064E+04	786.0873	ng/l	3.8085
Bi 209 <┘	77511	3751.6545			ions/sec	
Bi 209	77511	3751.6545	97.8047	4.7405	%r	4.8469
233.00	64	4.2427				
234.00	55	3.1819				
235.00	430	3.1781				
238.00	171611	3033.2671				
232.00	174186	5323.3130				
236.00	49	9.5460				
U 238	167538	1739.6624	2.047E+04	213.3942	ng/l	1.0425
U 238	166989	1743.6591	2.048E+04	214.5140	ng/l	1.0474

QUANTITATIVE ANALYSIS: SUMMARY REPORT

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

010620

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 257
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:17:43 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	638	23.5713	0	0.0000
U 238	502	28.7862	0	0.0000
Bi 209	77714	3907.1357	0	0.0000
Bi 209	77714	3907.1357	0	0.0000
233.00	44	8.8389	0	0.0000
234.00	44	2.1213	0	0.0000
235.00	48	5.3033	0	0.0000
238.00	540	1.0607	0	0.0000
232.00	105	10.2533	0	0.0000
236.00	43	5.3034	0	0.0000
U 238	637	8.4822	0	0.0000
U 238	502	3.5315	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	8.205E-03	3.033E-04	-2.5521	2.9034	ng/l	113.7656
U 238	6.463E-03	3.704E-04	-0.5518	3.5563	ng/l	644.5213
Bi 209	77714	3907.1357			ions/sec	
Bi 209	77714	3907.1357	98.0606	4.9369	%r	5.0346
233.00	44	8.8389				
234.00	44	2.1213				
235.00	48	5.3033				
238.00	540	1.0607				
232.00	105	10.2533				
236.00	43	5.3034				
U 238	637	8.4822	-4.0788	1.0405	ng/l	25.5092
U 238	502	3.5315	-1.7533	0.4345	ng/l	24.7804

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010621

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226205 df10
Sample Description:
Sample Type: Sample
Sequence Number: 258
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:20:19 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	18880	1341.6127	0	0.0000
U 238	18682	1345.7540	0	0.0000
Bi 209	68771	2385.1719	0	0.0000
Bi 209	68771	2385.1719	0	0.0000
233.00	42	8.1318	0	0.0000
234.00	44	3.1820	0	0.0000
235.00	111	6.0105	0	0.0000
238.00	19340	1045.4712	0	0.0000
232.00	63	3.5356	0	0.0000
236.00	44	0.3531	0	0.0000
U 238	18857	686.7895	0	0.0000
U 238	18659	697.6730	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	0.2745	0.0195	2546.8403	186.7419	ng/l	7.3323
U 238 ┘	0.2717	0.0196	2545.5364	187.8745	ng/l	7.3805
Bi 209 <┘	68771	2385.1719			ions/sec	
Bi 209	68771	2385.1719	86.7607	3.0138	%r	3.4737
233.00	42	8.1318				
234.00	44	3.1820				
235.00	111	6.0105				
238.00	19340	1045.4712				
232.00	63	3.5356				
236.00	44	0.3531				
U 238	18857	686.7895	2230.8115	84.2445	ng/l	3.7764
U 238	18659	697.6730	2232.0571	85.8314	ng/l	3.8454

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010622

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226206 df10
Sample Description:
Sample Type: Sample
Sequence Number: 259
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:22:56 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	159209	8325.5947	0	0.0000
U 238	158733	8359.2803	0	0.0000
Bi 209	73611	1664.6730	0	0.0000
Bi 209	73611	1664.6730	0	0.0000
233.00	49	10.6067	0	0.0000
234.00	51	13.7887	0	0.0000
235.00	376	20.1539	0	0.0000
238.00	159176	7902.3604	0	0.0000
232.00	59	4.9498	0	0.0000
236.00	46	2.8284	0	0.0000
U 238	159115	4725.1963	0	0.0000
U 238	158639	4769.9219	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.1628	0.1131	2.062E+04	1082.6619	ng/l	5.2499
U 238	2.1564	0.1136	2.064E+04	1090.2699	ng/l	5.2822
Bi 209	73611	1664.6730			ions/sec	
Bi 209	73611	1664.6730	92.8763	2.1034	%r	2.2648
233.00	49	10.6067				
234.00	51	13.7887				
235.00	376	20.1539				
238.00	159176	7902.3604				
232.00	59	4.9498				
236.00	46	2.8284				
U 238	159115	4725.1963	1.944E+04	579.6122	ng/l	2.9822
U 238	158639	4769.9219	1.945E+04	586.8207	ng/l	3.0166

QUANTITATIVE ANALYSIS: SUMMARY REPORT

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

010623

Sample ID: 226216 df10
Sample Description:
Sample Type: Sample
Sequence Number: 260
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:25:30 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	218828	2.052E+04	0	0.0000
U 238	218227	2.048E+04	0	0.0000
Bi 209	71074	4967.2222	0	0.0000
Bi 209	71074	4967.2222	0	0.0000
233.00	52	6.7175	0	0.0000
234.00	48	7.0711	0	0.0000
235.00	500	18.7408	0	0.0000
238.00	221056	8410.3486	0	0.0000
232.00	62	3.1819	0	0.0000
236.00	44	5.6569	0	0.0000
U 238	218111	5229.2710	0	0.0000
U 238	217511	5225.0537	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	3.0789	0.2888	2.939E+04	2764.0347	ng/l	9.4043
U 238 ┘	3.0704	0.2881	2.942E+04	2765.9231	ng/l	9.4028
Bi 209 <┘	71074	4967.2222			ions/sec	
Bi 209	71074	4967.2222	89.6703	6.2764	%r	6.9995
233.00	52	6.7175				
234.00	48	7.0711				
235.00	500	18.7408				
238.00	221056	8410.3486				
232.00	62	3.1819				
236.00	44	5.6569				
U 238	218111	5229.2710	2.667E+04	641.4441	ng/l	2.4049
U 238	217511	5225.0537	2.670E+04	642.8134	ng/l	2.4079

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010624

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226227 df10
Sample Description:
Sample Type: Sample
Sequence Number: 261
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:28:01 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	172179	1421.8862	0	0.0000
U 238	171378	1408.5028	0	0.0000
Bi 209	75401	311.2343	0	0.0000
Bi 209	75401	311.2343	0	0.0000
233.00	45	4.5962	0	0.0000
234.00	60	1.0607	0	0.0000
235.00	695	6.3714	0	0.0000
238.00	164193	6773.6709	0	0.0000
232.00	129	14.1425	0	0.0000
236.00	62	0.3536	0	0.0000
U 238	172176	705.6451	0	0.0000
U 238	171375	697.6271	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.2835	0.0189	2.178E+04	180.5125	ng/l	0.8289
U 238	2.2729	0.0187	2.176E+04	179.3443	ng/l	0.8242
Bi 209	75401	311.2343			ions/sec	
Bi 209	75401	311.2343	95.1383	0.3933	%r	0.4134
233.00	45	4.5962				
234.00	60	1.0607				
235.00	695	6.3714				
238.00	164193	6773.6709				
232.00	129	14.1425				
236.00	62	0.3536				
U 238	172176	705.6451	2.104E+04	86.5574	ng/l	0.4114
U 238	171375	697.6271	2.102E+04	85.8257	ng/l	0.4083

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010625

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226228 df10
Sample Description:
Sample Type: Sample
Sequence Number: 262
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:30:32 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	82611	2164.1968	0	0.0000
U 238	82134	2121.5835	0	0.0000
Bi 209	72552	4318.1133	0	0.0000
Bi 209	72552	4318.1133	0	0.0000
233.00	50	0.7074	0	0.0000
234.00	56	11.6674	0	0.0000
235.00	370	3.1822	0	0.0000
238.00	86035	3235.1648	0	0.0000
232.00	96	5.6571	0	0.0000
236.00	50	3.5356	0	0.0000
U 238	82546	2752.7539	0	0.0000
U 238	82071	2767.0798	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	1.1386	0.0298	1.082E+04	285.5407	ng/l	2.6394
U 238]	1.1321	0.0292	1.081E+04	280.7495	ng/l	2.5980
Bi 209 <]	72552	4318.1133			ions/sec	
Bi 209	72552	4318.1133	91.5382	5.4562	%r	5.9606
233.00	50	0.7074				
234.00	56	11.6674				
235.00	370	3.1822				
238.00	86035	3235.1648				
232.00	96	5.6571				
236.00	50	3.5356				
U 238	82546	2752.7539	1.004E+04	337.6642	ng/l	3.3621
U 238	82071	2767.0798	1.003E+04	340.4206	ng/l	3.3929

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010626

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226228s df10
Sample Description:
Sample Type: Sample
Sequence Number: 263
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:33:03 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	1738959	1.822E+04	0	0.0000
U 238	1734887	1.799E+04	0	0.0000
Bi 209	70222	766.7026	0	0.0000
Bi 209	70222	766.7026	0	0.0000
233.00	129	2.1214	0	0.0000
234.00	62	2.1215	0	0.0000
235.00	3879	194.9459	0	0.0000
238.00	1781427	9492.4424	0	0.0000
232.00	1686185	4.153E+04	0	0.0000
236.00	61	7.7783	0	0.0000
U 238	1738859	825.0917	0	0.0000
U 238	1734789	692.8821	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	24.7638	0.2595	2.370E+05	2483.9722	ng/l	1.0482
U 238	24.7058	0.2562	2.371E+05	2459.8398	ng/l	1.0373
Bi 209	70222	766.7026			ions/sec	
Bi 209	70222	766.7026	88.5940	0.9688	%r	1.0935
233.00	129	2.1214				
234.00	62	2.1215				
235.00	3879	194.9459				
238.00	1781427	9492.4424				
232.00	1686185	4.153E+04				
236.00	61	7.7783				
U 238	1738859	825.0917	2.132E+05	101.2092	ng/l	0.0475
U 238	1734789	692.8821	2.134E+05	85.2420	ng/l	0.0400

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010627

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226229 df10
Sample Description:
Sample Type: Sample
Sequence Number: 264
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:35:35 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	40982	811.9594	0	0.0000
U 238	40682	781.6721	0	0.0000
Bi 209	71868	2352.6768	0	0.0000
Bi 209	71868	2352.6768	0	0.0000
233.00	49	4.2426	0	0.0000
234.00	47	12.7280	0	0.0000
235.00	204	12.0212	0	0.0000
238.00	43366	128.7237	0	0.0000
232.00	968	270.5146	0	0.0000
236.00	44	3.1820	0	0.0000
U 238	40968	529.6737	0	0.0000
U 238	40669	550.1567	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.5702	0.0113	5377.4302	108.1485	ng/l	2.0112
U 238	0.5661	0.0109	5372.0508	104.4235	ng/l	1.9438
Bi 209	71868	2352.6768			ions/sec	
Bi 209	71868	2352.6768	90.6736	2.9728	%r	3.2785
233.00	49	4.2426				
234.00	47	12.7280				
235.00	204	12.0212				
238.00	43366	128.7237				
232.00	968	270.5146				
236.00	44	3.1820				
U 238	40968	529.6737	4943.1230	64.9720	ng/l	1.3144
U 238	40669	550.1567	4939.8340	67.6831	ng/l	1.3702

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010628

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226230 df10
Sample Description:
Sample Type: Sample
Sequence Number: 265
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:38:08 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	18678	801.1547	0	0.0000
U 238	18471	784.7904	0	0.0000
Bi 209	74234	5267.9727	0	0.0000
Bi 209	74234	5267.9727	0	0.0000
233.00	42	4.9498	0	0.0000
234.00	47	4.9498	0	0.0000
235.00	118	1.7678	0	0.0000
238.00	18452	1708.9358	0	0.0000
232.00	277	13.7886	0	0.0000
236.00	45	5.6569	0	0.0000
U 238	18649	524.2286	0	0.0000
U 238	18444	526.0239	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	0.2516	0.0108	2327.3987	103.3082	ng/l	4.4388
U 238 ┘	0.2488	0.0106	2326.3547	101.4985	ng/l	4.3630
Bi 209 <┘	74234	5267.9727			ions/sec	
Bi 209	74234	5267.9727	93.6634	6.6565	%r	7.1068
233.00	42	4.9498				
234.00	47	4.9498				
235.00	118	1.7678				
238.00	18452	1708.9358				
232.00	277	13.7886				
236.00	45	5.6569				
U 238	18649	524.2286	2205.3943	64.3041	ng/l	2.9158
U 238	18444	526.0239	2205.5806	64.7142	ng/l	2.9341

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010629

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 266
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:40:42 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	161788	1.007E+04	0	0.0000
U 238	161246	1.006E+04	0	0.0000
Bi 209	76918	2343.5476	0	0.0000
Bi 209	76918	2343.5476	0	0.0000
233.00	61	2.8285	0	0.0000
234.00	53	6.7176	0	0.0000
235.00	427	14.1432	0	0.0000
238.00	166061	1008.9088	0	0.0000
232.00	166356	4859.8784	0	0.0000
236.00	49	8.8389	0	0.0000
U 238	161634	5140.5298	0	0.0000
U 238	161093	5150.7207	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.1034	0.1309	2.005E+04	1253.1155	ng/l	6.2490
U 238	2.0963	0.1308	2.006E+04	1256.0458	ng/l	6.2602
Bi 209	76918	2343.5476			ions/sec	
Bi 209	76918	2343.5476	97.0553	2.9612	%r	3.0511
233.00	61	2.8285				
234.00	53	6.7176				
235.00	427	14.1432				
238.00	166061	1008.9088				
232.00	166356	4859.8784				
236.00	49	8.8389				
U 238	161634	5140.5298	1.974E+04	630.5587	ng/l	3.1936
U 238	161093	5150.7207	1.976E+04	633.6685	ng/l	3.2076

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010630

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 267
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 21:43:17 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	675	49.1403	0	0.0000
U 238	535	29.2728	0	0.0000
Bi 209	78398	4597.1001	0	0.0000
Bi 209	78398	4597.1001	0	0.0000
233.00	45	2.1213	0	0.0000
234.00	48	3.5355	0	0.0000
235.00	46	6.0105	0	0.0000
238.00	520	5.3098	0	0.0000
232.00	130	10.2534	0	0.0000
236.00	42	2.8284	0	0.0000
U 238	674	9.5494	0	0.0000
U 238	535	2.1215	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	8.613E-03	6.268E-04	1.3532	6.0000	ng/l	443.3863
U 238	6.829E-03	3.734E-04	2.9645	3.5848	ng/l	120.9225
Bi 209	78398	4597.1001			ions/sec	
Bi 209	78398	4597.1001	98.9256	5.8088	%r	5.8718
233.00	45	2.1213				
234.00	48	3.5355				
235.00	46	6.0105				
238.00	520	5.3098				
232.00	130	10.2534				
236.00	42	2.8284				
U 238	674	9.5494	0.4295	1.1714	ng/l	272.7201
U 238	535	2.1215	2.3069	0.2610	ng/l	11.3136

010631

tot U ANALYSIS

PROJ. NO.	PROJECT	TO#	DATE	MATRIX	LOGBK PG
06002.01.071	Div DZ 20	0305201-3	~~6/20/03~~ 6/19/03 CO	Liq	SA 075
					SA 074
					SA 073

INSTRUMENT: ICP MS FILENAME: 052013b.prn

INSTRUMENT DL:

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010632

Cordova 6/19/03

Data Set:	june03-misc6
Data Set Description:	
Parameter File:	u_tot_in
Sample ID:	u_di
Sample Description:	
Sample Type:	Standard
Sequence Number:	176
Blank:	Not Subtracted
Dilution Factor:	1
Number of Repeats:	2
Time:	17:44:01 Jun 19 2003
Signal Profile Processing:	Average
Spectral Peak Processing:	Average
Deadtime Correction:	88
Calibration File:	[Untitled]
Calibration:	External Standard

30 JUN 03

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	244	2.1121	0	0.0000
U 238	61	7.9489	0	0.0000
Bi 209	75	2.8287	0	0.0000
Bi 209	75	2.8287	0	0.0000
233.00	62	7.0711	0	0.0000
234.00	65	2.1212	0	0.0000
235.00	56	3.8891	0	0.0000
238.00	61	1.0607	0	0.0000
232.00	60	2.8284	0	0.0000
236.00	58	14.4959	0	0.0000
U 238	244	11.3142	0	0.0000
U 238	61	10.2531	0	0.0000

J Schwyk 6/23/03

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	3.2528	0.0282				
U 238]	0.8147	0.1060				
Bi 209 <]	75	2.8287			ions/sec	
Bi 209	75	2.8287			%r	
233.00	62	7.0711				
234.00	65	2.1212				
235.00	56	3.8891				
238.00	61	1.0607				
232.00	60	2.8284				
236.00	58	14.4959				
U 238	244	11.3142				
U 238	61	10.2531				

	Entered Conc.
U 238]	
U 238]	
Bi 209 <]	0.0000
Bi 209	0.0000
233.00	
234.00	
235.00	
238.00	
232.00	
236.00	
U 238	
U 238	

052013b.prn

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010633

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: u_s0
Sample Description:
Sample Type: Standard
Sequence Number: 177
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:46:35 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	626	19.8696	0	0.0000
U 238	434	13.6811	0	0.0000
Bi 209	73551	879.6674	0	0.0000
Bi 209	73551	879.6674	0	0.0000
233.00	63	7.7783	0	0.0000
234.00	62	1.0607	0	0.0000
235.00	68	2.8286	0	0.0000
238.00	483	28.6397	0	0.0000
232.00	57	8.8389	0	0.0000
236.00	70	6.7177	0	0.0000
U 238	626	12.3770	0	0.0000
U 238	434	8.4859	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	8.516E-03	2.701E-04			ng/l	
U 238	5.902E-03	1.860E-04			ng/l	
Bi 209	73551	879.6674			ions/sec	
Bi 209	73551	879.6674	100.0000	1.1972	%r	1.1972
233.00	63	7.7783				
234.00	62	1.0607				
235.00	68	2.8286				
238.00	483	28.6397				
232.00	57	8.8389				
236.00	70	6.7177				
U 238	626	12.3770			ng/l	
U 238	434	8.4859			ng/l	

	Entered Conc.
U 238	0.0000
U 238	0.0000
Bi 209	100.0000
Bi 209	100.0000
233.00	
234.00	
235.00	
238.00	
232.00	
236.00	
U 238	0.0000
U 238	0.0000

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010634

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: u_10
Sample Description:
Sample Type: Standard
Sequence Number: 178
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:49:10 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	78010	6697.7661	0	0.0000
U 238	77598	6681.7700	0	0.0000
Bi 209	74205	4403.8940	0	0.0000
Bi 209	74205	4403.8940	0	0.0000
233.00	59	1.4144	0	0.0000
234.00	61	5.3033	0	0.0000
235.00	292	1.7679	0	0.0000
238.00	78718	2523.6199	0	0.0000
232.00	161	9.1926	0	0.0000
236.00	75	12.7280	0	0.0000
U 238	77811	2068.0247	0	0.0000
U 238	77399	2076.4854	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.0513	0.0903	1.000E+04	865.5894	ng/l	8.6559
U 238	1.0457	0.0900	1.000E+04	865.9673	ng/l	8.6597
Bi 209	74205	4403.8940			ions/sec	
Bi 209	74205	4403.8940	100.8894	5.9936	%r	5.9408
233.00	59	1.4144				
234.00	61	5.3033				
235.00	292	1.7679				
238.00	78718	2523.6199				
232.00	161	9.1926				
236.00	75	12.7280				
U 238	77811	2068.0247	1.000E+04	267.9308	ng/l	2.6793
U 238	77399	2076.4854	1.000E+04	269.7951	ng/l	2.6980

	Entered Conc.
U 238	1.000E+04
U 238	1.000E+04
Bi 209	
Bi 209	
233.00	
234.00	
235.00	
238.00	
232.00	
236.00	
U 238	1.000E+04
U 238	1.000E+04

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010635

TV = 20 ppb
Cordura
6/19/03

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: icv
Sample Description:
Sample Type: Sample
Sequence Number: 179
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:51:45 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	155678	667.4530	0	0.0000
U 238	155147	652.4513	0	0.0000
Bi 209	77116	3998.1047	0	0.0000
Bi 209	77116	3998.1047	0	0.0000
233.00	70	3.5356	0	0.0000
234.00	63	12.0209	0	0.0000
235.00	398	6.0088	0	0.0000
238.00	158674	494.3040	0	0.0000
232.00	161779	7844.5083	0	0.0000
236.00	62	13.0816	0	0.0000
U 238	155661	7404.9702	0	0.0000
U 238	155130	7395.4604	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.0188	8.655E-03	1.928E+04	83.0020	ng/l	0.4306
U 238	2.0119	8.461E-03	1.929E+04	81.3662	ng/l	0.4218
Bi 209	77116	3998.1047			ions/sec	
Bi 209	77116	3998.1047	104.8519	5.4414	%r	5.1896
233.00	70	3.5356				
234.00	63	12.0209				
235.00	398	6.0088				
238.00	158674	494.3040				
232.00	161779	7844.5083				
236.00	62	13.0816				
U 238	155661	7404.9702	2.009E+04	959.3790	ng/l	4.7763
U 238	155130	7395.4604	2.010E+04	960.8827	ng/l	4.7806

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010636

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: icb
Sample Description:
Sample Type: Sample
Sequence Number: 180
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 17:58:56 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	653	21.8164	0	0.0000
U 238	477	19.2927	0	0.0000
Bi 209	76370	590.5115	0	0.0000
Bi 209	76370	590.5115	0	0.0000
233.00	59	3.5356	0	0.0000
234.00	55	2.8285	0	0.0000
235.00	63	4.5963	0	0.0000
238.00	482	3.8856	0	0.0000
232.00	72	4.5961	0	0.0000
236.00	61	3.1819	0	0.0000
U 238	654	26.8714	0	0.0000
U 238	477	22.9823	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	8.556E-03	2.857E-04	0.3817	2.7395	ng/l	717.7020
U 238 ┘	6.248E-03	2.526E-04	3.3317	2.4295	ng/l	72.9197
Bi 209 <┘	76370	590.5115			ions/sec	
Bi 209	76370	590.5115	103.8371	0.8037	%r	0.7740
233.00	59	3.5356				
234.00	55	2.8285				
235.00	63	4.5963				
238.00	482	3.8856				
232.00	72	4.5961				
236.00	61	3.1819				
U 238	654	26.8714	3.5309	3.4814	ng/l	98.5984
U 238	477	22.9823	5.6199	2.9861	ng/l	53.1339

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010637

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: pbw-f17w5
Sample Description:
Sample Type: Sample
Sequence Number: 181
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:01:29 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	649	0.5191	0	0.0000
U 238	471	16.1932	0	0.0000
Bi 209	71402	5321.2104	0	0.0000
Bi 209	71402	5321.2104	0	0.0000
233.00	57	0.7071	0	0.0000
234.00	63	2.1213	0	0.0000
235.00	58	0.3542	0	0.0000
238.00	491	47.3803	0	0.0000
232.00	66	1.7678	0	0.0000
236.00	59	8.1318	0	0.0000
U 238	649	48.7954	0	0.0000
U 238	471	51.2698	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	9.089E-03	7.271E-06	5.4961	0.0697	ng/l	1.2686
U 238	6.592E-03	2.268E-04	6.6337	2.1810	ng/l	32.8779
Bi 209	71402	5321.2104			ions/sec	
Bi 209	71402	5321.2104	97.0749	7.2421	%r	7.4603
233.00	57	0.7071				
234.00	63	2.1213				
235.00	58	0.3542				
238.00	491	47.3803				
232.00	66	1.7678				
236.00	59	8.1318				
U 238	649	48.7954	2.9478	6.3219	ng/l	214.4575
U 238	471	51.2698	4.8402	6.6614	ng/l	137.6256

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010638

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: lcsw-f17w5 df20
Sample Description:
Sample Type: Sample
Sequence Number: 182
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:04:02 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	81546	2936.3467	0	0.0000
U 238	81166	2924.6538	0	0.0000
Bi 209	74336	1518.0256	0	0.0000
Bi 209	74336	1518.0256	0	0.0000
233.00	68	12.7281	0	0.0000
234.00	67	1.7678	0	0.0000
235.00	245	14.4963	0	0.0000
238.00	85734	1811.4087	0	0.0000
232.00	82574	2287.1370	0	0.0000
236.00	59	7.0712	0	0.0000
U 238	81516	1271.1777	0	0.0000
U 238	81136	1267.8619	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.0970	0.0395	1.044E+04	378.8105	ng/l	3.6290
U 238	1.0919	0.0393	1.044E+04	378.3704	ng/l	3.6229
Bi 209	74336	1518.0256			ions/sec	
Bi 209	74336	1518.0256	101.0679	2.0660	%r	2.0442
233.00	68	12.7281				
234.00	67	1.7678				
235.00	245	14.4963				
238.00	85734	1811.4087				
232.00	82574	2287.1370				
236.00	59	7.0712				
U 238	81516	1271.1777	1.048E+04	164.6923	ng/l	1.5715
U 238	81136	1267.8619	1.049E+04	164.7317	ng/l	1.5710

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010639

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226215 df200
Sample Description:
Sample Type: Sample
Sequence Number: 183
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:06:35 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	305677	7736.7017	0	0.0000
U 238	304783	7748.3477	0	0.0000
Bi 209	73408	1769.1923	0	0.0000
Bi 209	73408	1769.1923	0	0.0000
233.00	69	10.2532	0	0.0000
234.00	68	2.8283	0	0.0000
235.00	757	45.6135	0	0.0000
238.00	329033	1.541E+04	0	0.0000
232.00	90	9.8997	0	0.0000
236.00	67	2.4747	0	0.0000
U 238	305584	351.5418	0	0.0000
U 238	304689	402.9625	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	4.1641	0.1054	3.985E+04	1010.7013	ng/l	2.5362
U 238	4.1519	0.1056	3.987E+04	1015.0889	ng/l	2.5459
Bi 209	73408	1769.1923			ions/sec	
Bi 209	73408	1769.1923	99.8057	2.4078	%r	2.4125
233.00	69	10.2532				
234.00	68	2.8283				
235.00	757	45.6135				
238.00	329033	1.541E+04				
232.00	90	9.8997				
236.00	67	2.4747				
U 238	305584	351.5418	3.951E+04	45.5453	ng/l	0.1153
U 238	304689	402.9625	3.953E+04	52.3564	ng/l	0.1324

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010640

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226225 df200
Sample Description:
Sample Type: Sample
Sequence Number: 184
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:09:08 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	129329	9301.0635	0	0.0000
U 238	128856	9292.1104	0	0.0000
Bi 209	72544	2022.0146	0	0.0000
Bi 209	72544	2022.0146	0	0.0000
233.00	65	2.1212	0	0.0000
234.00	66	3.1822	0	0.0000
235.00	342	3.1855	0	0.0000
238.00	138144	824.3760	0	0.0000
232.00	72	4.9498	0	0.0000
236.00	61	13.4352	0	0.0000
U 238	129199	5696.8462	0	0.0000
U 238	128726	5700.9438	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	1.7828	0.1282	1.701E+04	1229.5443	ng/l	7.2263
U 238 ┘	1.7762	0.1281	1.703E+04	1231.8391	ng/l	7.2353
Bi 209 <┘	72544	2022.0146			ions/sec	
Bi 209	72544	2022.0146	98.6292	2.7519	%r	2.7902
233.00	65	2.1212				
234.00	66	3.1822				
235.00	342	3.1855				
238.00	138144	824.3760				
232.00	72	4.9498				
236.00	61	13.4352				
U 238	129199	5696.8462	1.666E+04	738.0765	ng/l	4.4308
U 238	128726	5700.9438	1.667E+04	740.7163	ng/l	4.4437

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010641

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226235 df200
Sample Description:
Sample Type: Sample
Sequence Number: 185
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:11:42 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	354252	2.042E+04	0	0.0000
U 238	353332	2.039E+04	0	0.0000
Bi 209	73569	7030.4854	0	0.0000
Bi 209	73569	7030.4854	0	0.0000
233.00	64	1.7678	0	0.0000
234.00	67	1.4139	0	0.0000
235.00	788	55.8700	0	0.0000
238.00	365216	3696.4006	0	0.0000
232.00	72	6.7177	0	0.0000
236.00	67	1.0602	0	0.0000
U 238	353276	1.343E+04	0	0.0000
U 238	352358	1.337E+04	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	4.8152	0.2776	4.610E+04	2662.2783	ng/l	5.7756
U 238	4.8027	0.2772	4.613E+04	2665.7227	ng/l	5.7786
Bi 209	73569	7030.4854			ions/sec	
Bi 209	73569	7030.4854	100.0249	9.5684	%r	9.5660
233.00	64	1.7678				
234.00	67	1.4139				
235.00	788	55.8700				
238.00	365216	3696.4006				
232.00	72	6.7177				
236.00	67	1.0602				
U 238	353276	1.343E+04	4.569E+04	1739.8583	ng/l	3.8081
U 238	352358	1.337E+04	4.573E+04	1737.6613	ng/l	3.8002

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010642

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226239 df200
Sample Description:
Sample Type: Sample
Sequence Number: 186
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:14:16 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	123522	609.9835	0	0.0000
U 238	123051	575.1707	0	0.0000
Bi 209	74353	510.0066	0	0.0000
Bi 209	74353	510.0066	0	0.0000
233.00	66	1.0607	0	0.0000
234.00	63	8.1318	0	0.0000
235.00	342	30.0539	0	0.0000
238.00	126937	4001.7603	0	0.0000
232.00	74	10.9602	0	0.0000
236.00	68	2.4749	0	0.0000
U 238	123524	1461.0254	0	0.0000
U 238	123053	1421.2104	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.6613	8.204E-03	1.585E+04	78.6745	ng/l	0.4964
U 238	1.6550	7.736E-03	1.586E+04	74.3945	ng/l	0.4691
Bi 209	74353	510.0066			ions/sec	
Bi 209	74353	510.0066	101.0909	0.6941	%r	0.6866
233.00	66	1.0607				
234.00	63	8.1318				
235.00	342	30.0539				
238.00	126937	4001.7603				
232.00	74	10.9602				
236.00	68	2.4749				
U 238	123524	1461.0254	1.592E+04	189.2887	ng/l	1.1888
U 238	123053	1421.2104	1.593E+04	184.6561	ng/l	1.1590

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010643

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226241 df200
Sample Description:
Sample Type: Sample
Sequence Number: 187
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:16:51 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	116782	1.219E+04	0	0.0000
U 238	116327	1.216E+04	0	0.0000
Bi 209	74088	7301.1094	0	0.0000
Bi 209	74088	7301.1094	0	0.0000
233.00	63	5.6569	0	0.0000
234.00	60	1.7679	0	0.0000
235.00	331	1.4143	0	0.0000
238.00	119014	2571.7449	0	0.0000
232.00	68	12.3746	0	0.0000
236.00	61	12.3745	0	0.0000
U 238	116181	687.1810	0	0.0000
U 238	115728	692.3570	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.5763	0.1646	1.503E+04	1578.4688	ng/l	10.4990
U 238	1.5701	0.1641	1.504E+04	1577.8977	ng/l	10.4892
Bi 209	74088	7301.1094			ions/sec	
Bi 209	74088	7301.1094	100.7311	9.9367	%r	9.8646
233.00	63	5.6569				
234.00	60	1.7679				
235.00	331	1.4143				
238.00	119014	2571.7449				
232.00	68	12.3746				
236.00	61	12.3745				
U 238	116181	687.1810	1.497E+04	89.0303	ng/l	0.5947
U 238	115728	692.3570	1.498E+04	89.9571	ng/l	0.6005

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010644

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226243 df200
Sample Description:
Sample Type: Sample
Sequence Number: 188
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:19:26 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	116214	6017.3335	0	0.0000
U 238	115758	6015.8286	0	0.0000
Bi 209	72666	2697.9932	0	0.0000
Bi 209	72666	2697.9932	0	0.0000
233.00	62	7.4247	0	0.0000
234.00	67	0.0000	0	0.0000
235.00	327	22.9827	0	0.0000
238.00	122911	1183.7961	0	0.0000
232.00	67	2.1213	0	0.0000
236.00	60	0.3529	0	0.0000
U 238	116102	1701.9287	0	0.0000
U 238	115646	1718.2264	0	0.0000

	Net Intensity	Ratio/	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238		1.5993	0.0828	1.526E+04	794.1203	ng/l	5.2055
U 238		1.5930	0.0828	1.526E+04	796.1698	ng/l	5.2162
Bi 209	<-	72666	2697.9932			ions/sec	
Bi 209		72666	2697.9932	98.7952	3.6719	%r	3.7167
233.00		62	7.4247				
234.00		67	0.0000				
235.00		327	22.9827				
238.00		122911	1183.7961				
232.00		67	2.1213				
236.00		60	0.3529				
U 238		116102	1701.9287	1.496E+04	220.4998	ng/l	1.4738
U 238		115646	1718.2264	1.497E+04	223.2470	ng/l	1.4914

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010645

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226245 df200
Sample Description:
Sample Type: Sample
Sequence Number: 189
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:22:01 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	148996	4775.9136	0	0.0000
U 238	148504	4791.0864	0	0.0000
Bi 209	72769	683.9601	0	0.0000
Bi 209	72769	683.9601	0	0.0000
233.00	61	0.7068	0	0.0000
234.00	63	8.4854	0	0.0000
235.00	368	11.6671	0	0.0000
238.00	154696	9531.1807	0	0.0000
232.00	77	4.5963	0	0.0000
236.00	62	3.8891	0	0.0000
U 238	148974	3375.5059	0	0.0000
U 238	148482	3395.2173	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.0475	0.0656	1.955E+04	629.3974	ng/l	3.2188
U 238	2.0408	0.0658	1.957E+04	633.1849	ng/l	3.2356
Bi 209	72769	683.9601			ions/sec	
Bi 209	72769	683.9601	98.9350	0.9309	%r	0.9409
233.00	61	0.7068				
234.00	63	8.4854				
235.00	368	11.6671				
238.00	154696	9531.1807				
232.00	77	4.5963				
236.00	62	3.8891				
U 238	148974	3375.5059	1.922E+04	437.3265	ng/l	2.2754
U 238	148482	3395.2173	1.924E+04	441.1362	ng/l	2.2933

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010646

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226251 df200
Sample Description:
Sample Type: Sample
Sequence Number: 190
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:24:37 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	108882	6127.7163	0	0.0000
U 238	108464	6100.3613	0	0.0000
Bi 209	75184	5913.2246	0	0.0000
Bi 209	75184	5913.2246	0	0.0000
233.00	59	0.0000	0	0.0000
234.00	65	2.1212	0	0.0000
235.00	293	3.1822	0	0.0000
238.00	104587	5002.7476	0	0.0000
232.00	71	0.3551	0	0.0000
236.00	66	12.3745	0	0.0000
U 238	108641	2435.7009	0	0.0000
U 238	108224	2430.3591	0	0.0000

	Net Intensity	Ratio/	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238		1.4482	0.0815	1.381E+04	781.5997	ng/l	5.6611
U 238		1.4426	0.0811	1.382E+04	780.3138	ng/l	5.6474
Bi 209	<	75184	5913.2246			ions/sec	
Bi 209		75184	5913.2246	102.2227	8.0478	%r	7.8728
233.00		59	0.0000				
234.00		65	2.1212				
235.00		293	3.1822				
238.00		104587	5002.7476				
232.00		71	0.3551				
236.00		66	12.3745				
U 238		108641	2435.7009	1.399E+04	315.5665	ng/l	2.2550
U 238		108224	2430.3591	1.401E+04	315.7734	ng/l	2.2547

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010647

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 191
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:27:13 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	159222	5612.2764	0	0.0000
U 238	158630	5582.0586	0	0.0000
Bi 209	78264	1128.7302	0	0.0000
Bi 209	78264	1128.7302	0	0.0000
233.00	71	10.2532	0	0.0000
234.00	71	3.5356	0	0.0000
235.00	451	7.7770	0	0.0000
238.00	158338	2600.2969	0	0.0000
232.00	158877	1220.6652	0	0.0000
236.00	65	3.1819	0	0.0000
U 238	159182	3315.8052	0	0.0000
U 238	158589	3293.9346	0	0.0000

	Net Intensity	Ratio/	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238		2.0344	0.0717	1.943E+04	687.6832	ng/l	3.5396
U 238		2.0268	0.0713	1.944E+04	685.9173	ng/l	3.5292
Bi 209	78264		1128.7302			ions/sec	
Bi 209	78264		1128.7302	106.4145	1.5362	%r	1.4436
233.00	71		10.2532				
234.00	71		3.5356				
235.00	451		7.7770				
238.00	158338		2600.2969				
232.00	158877		1220.6652				
236.00	65		3.1819				
U 238	159182		3315.8052	2.054E+04	429.5917	ng/l	2.0913
U 238	158589		3293.9346	2.055E+04	427.9767	ng/l	2.0827

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010648

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 192
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:29:48 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	720	8.8217	0	0.0000
U 238	519	3.5411	0	0.0000
Bi 209	73837	653.1193	0	0.0000
Bi 209	73837	653.1193	0	0.0000
233.00	59	10.2532	0	0.0000
234.00	73	8.8389	0	0.0000
235.00	70	12.0210	0	0.0000
238.00	521	2.8287	0	0.0000
232.00	111	0.3512	0	0.0000
236.00	65	0.3550	0	0.0000
U 238	720	15.2029	0	0.0000
U 238	519	8.1325	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	9.754E-03	1.195E-04	11.8731	1.1458	ng/l	9.6500
U 238	7.026E-03	4.796E-05	10.8071	0.4612	ng/l	4.2677
Bi 209 <-	73837	653.1193			ions/sec	
Bi 209	73837	653.1193	100.3888	0.8889	%r	0.8854
233.00	59	10.2532				
234.00	73	8.8389				
235.00	70	12.0210				
238.00	521	2.8287				
232.00	111	0.3512				
236.00	65	0.3550				
U 238	720	15.2029	12.1795	1.9697	ng/l	16.1721
U 238	519	8.1325	11.0124	1.0566	ng/l	9.5951

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010649

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226251s df200
Sample Description:
Sample Type: Sample
Sequence Number: 193
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:32:24 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	1845474	8.640E+04	0	0.0000
U 238	1841285	8.635E+04	0	0.0000
Bi 209	73492	1526.0188	0	0.0000
Bi 209	73492	1526.0188	0	0.0000
233.00	155	10.2533	0	0.0000
234.00	75	4.9498	0	0.0000
235.00	3958	51.2821	0	0.0000
238.00	1866045	3.410E+04	0	0.0000
232.00	1771723	5.919E+04	0	0.0000
236.00	72	0.7071	0	0.0000
U 238	1844576	4.807E+04	0	0.0000
U 238	1840388	4.811E+04	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	25.1113	1.1756	2.407E+05	1.127E+04	ng/l	4.6832
U 238	25.0543	1.1749	2.409E+05	1.130E+04	ng/l	4.6906
Bi 209	73492	1526.0188			ions/sec	
Bi 209	73492	1526.0188	99.9194	2.0769	%r	2.0786
233.00	155	10.2533				
234.00	75	4.9498				
235.00	3958	51.2821				
238.00	1866045	3.410E+04				
232.00	1771723	5.919E+04				
236.00	72	0.7071				
U 238	1844576	4.807E+04	2.389E+05	6227.3813	ng/l	2.6067
U 238	1840388	4.811E+04	2.391E+05	6251.0381	ng/l	2.6148

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010650

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226253 df200
Sample Description:
Sample Type: Sample
Sequence Number: 194
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:35:01 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	154359	633.8046	0	0.0000
U 238	153824	651.8502	0	0.0000
Bi 209	73624	427.9030	0	0.0000
Bi 209	73624	427.9030	0	0.0000
233.00	61	4.2427	0	0.0000
234.00	67	0.3521	0	0.0000
235.00	408	22.6285	0	0.0000
238.00	167149	915.1730	0	0.0000
232.00	421	26.5190	0	0.0000
236.00	56	9.8996	0	0.0000
U 238	154357	256.6804	0	0.0000
U 238	153822	238.9800	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	2.0966	8.609E-03	2.002E+04	82.5557	ng/l	0.4123
U 238	]	2.0893	8.854E-03	2.004E+04	85.1466	ng/l	0.4250
Bi 209	<	73624	427.9030			ions/sec	
Bi 209		73624	427.9030	100.0996	0.5824	%r	0.5818
233.00		61	4.2427				
234.00		67	0.3521				
235.00		408	22.6285				
238.00		167149	915.1730				
232.00		421	26.5190				
236.00		56	9.8996				
U 238		154357	256.6804	1.992E+04	33.2552	ng/l	0.1670
U 238		153822	238.9800	1.993E+04	31.0504	ng/l	0.1558

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010651

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: pbw-f14w4
Sample Description:
Sample Type: Sample
Sequence Number: 195
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:37:38 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	774	47.9190	0	0.0000
U 238	592	27.2723	0	0.0000
Bi 209	69197	4094.7781	0	0.0000
Bi 209	69197	4094.7781	0	0.0000
233.00	55	1.7678	0	0.0000
234.00	61	2.1213	0	0.0000
235.00	65	10.2532	0	0.0000
238.00	618	15.9116	0	0.0000
232.00	148	31.8207	0	0.0000
236.00	58	1.4141	0	0.0000
U 238	773	2.1400	0	0.0000
U 238	592	7.7836	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.0112	6.925E-04	25.5901	6.6410	ng/l	25.9516
U 238	8.560E-03	3.941E-04	25.5641	3.7903	ng/l	14.8268
Bi 209	69197	4094.7781			ions/sec	
Bi 209	69197	4094.7781	94.0736	5.5729	%r	5.9240
233.00	55	1.7678				
234.00	61	2.1213				
235.00	65	10.2532				
238.00	618	15.9116				
232.00	148	31.8207				
236.00	58	1.4141				
U 238	773	2.1400	18.9498	0.2773	ng/l	1.4631
U 238	592	7.7836	20.4656	1.0113	ng/l	4.9415

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010652

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: lcsw-f17w4 df20
Sample Description:
Sample Type: Sample
Sequence Number: 196
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:40:16 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	80303	6317.1748	0	0.0000
U 238	79938	6305.1768	0	0.0000
Bi 209	73367	1797.5056	0	0.0000
Bi 209	73367	1797.5056	0	0.0000
233.00	66	1.0607	0	0.0000
234.00	55	3.8891	0	0.0000
235.00	244	1.7699	0	0.0000
238.00	85395	3315.9141	0	0.0000
232.00	83880	2672.6426	0	0.0000
236.00	60	7.4247	0	0.0000
U 238	80225	4349.4819	0	0.0000
U 238	79861	4346.0825	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	1.0945	0.0861	1.041E+04	825.7253	ng/l	7.9284
U 238 ┘	1.0896	0.0859	1.042E+04	826.4908	ng/l	7.9306
Bi 209 <	73367	1797.5056			ions/sec	
Bi 209	73367	1797.5056	99.7492	2.4464	%r	2.4525
233.00	66	1.0607				
234.00	55	3.8891				
235.00	244	1.7699				
238.00	85395	3315.9141				
232.00	83880	2672.6426				
236.00	60	7.4247				
U 238	80225	4349.4819	1.031E+04	563.5136	ng/l	5.4642
U 238	79861	4346.0825	1.032E+04	564.6809	ng/l	5.4718

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010653

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226217 df100
Sample Description:
Sample Type: Sample
Sequence Number: 197
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:42:55 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	183053	6056.8252	0	0.0000
U 238	182488	6062.5688	0	0.0000
Bi 209	74617	1529.5824	0	0.0000
Bi 209	74617	1529.5824	0	0.0000
233.00	59	5.6569	0	0.0000
234.00	58	1.7679	0	0.0000
235.00	448	9.9003	0	0.0000
238.00	189620	7853.5352	0	0.0000
232.00	116	1.0607	0	0.0000
236.00	52	5.3033	0	0.0000
U 238	182991	2304.6907	0	0.0000
U 238	182426	2321.6072	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.4532	0.0812	2.344E+04	778.4286	ng/l	3.3203
U 238	2.4457	0.0812	2.346E+04	781.3731	ng/l	3.3302
Bi 209	74617	1529.5824			ions/sec	
Bi 209	74617	1529.5824	101.4509	2.0817	%r	2.0520
233.00	59	5.6569				
234.00	58	1.7679				
235.00	448	9.9003				
238.00	189620	7853.5352				
232.00	116	1.0607				
236.00	52	5.3033				
U 238	182991	2304.6907	2.363E+04	298.5930	ng/l	1.2638
U 238	182426	2321.6072	2.365E+04	301.6434	ng/l	1.2757

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010654

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226221 df100
Sample Description:
Sample Type: Sample
Sequence Number: 198
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:45:34 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	125372	169.9256	0	0.0000
U 238	124948	176.2531	0	0.0000
Bi 209	71592	4954.3105	0	0.0000
Bi 209	71592	4954.3105	0	0.0000
233.00	45	0.3540	0	0.0000
234.00	56	1.4141	0	0.0000
235.00	324	19.0930	0	0.0000
238.00	123337	2242.1074	0	0.0000
232.00	111	1.0599	0	0.0000
236.00	55	0.3542	0	0.0000
U 238	125378	8840.0645	0	0.0000
U 238	124954	8819.1514	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.7512	2.374E-03	1.671E+04	22.7617	ng/l	0.1362
U 238	1.7453	2.462E-03	1.673E+04	23.6761	ng/l	0.1415
Bi 209	71592	4954.3105			ions/sec	
Bi 209	71592	4954.3105	97.3342	6.7428	%r	6.9274
233.00	45	0.3540				
234.00	56	1.4141				
235.00	324	19.0930				
238.00	123337	2242.1074				
232.00	111	1.0599				
236.00	55	0.3542				
U 238	125378	8840.0645	1.616E+04	1145.3081	ng/l	7.0861
U 238	124954	8819.1514	1.618E+04	1145.8610	ng/l	7.0825

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010655

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226223 df100
Sample Description:
Sample Type: Sample
Sequence Number: 199
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:48:09 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	166205	1.111E+04	0	0.0000
U 238	165705	1.108E+04	0	0.0000
Bi 209	76156	4002.3018	0	0.0000
Bi 209	76156	4002.3018	0	0.0000
233.00	51	0.0000	0	0.0000
234.00	53	1.7678	0	0.0000
235.00	395	9.5479	0	0.0000
238.00	160806	2125.4304	0	0.0000
232.00	90	0.0000	0	0.0000
236.00	59	8.8389	0	0.0000
U 238	165913	2379.8821	0	0.0000
U 238	165414	2368.7634	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.1824	0.1459	2.085E+04	1399.6387	ng/l	6.7137
U 238	2.1759	0.1455	2.087E+04	1398.8116	ng/l	6.7030
Bi 209 <	76156	4002.3018			ions/sec	
Bi 209	76156	4002.3018	103.5456	5.4471	%r	5.2606
233.00	51	0.0000				
234.00	53	1.7678				
235.00	395	9.5479				
238.00	160806	2125.4304				
232.00	90	0.0000				
236.00	59	8.8389				
U 238	165913	2379.8821	2.141E+04	308.3347	ng/l	1.4398
U 238	165414	2368.7634	2.144E+04	307.7704	ng/l	1.4358

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010656

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226224 df100
Sample Description:
Sample Type: Sample
Sequence Number: 200
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:50:41 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	143536	7854.2861	0	0.0000
U 238	143059	7809.8125	0	0.0000
Bi 209	72654	4439.8120	0	0.0000
Bi 209	72654	4439.8120	0	0.0000
233.00	53	7.0711	0	0.0000
234.00	55	5.3034	0	0.0000
235.00	368	13.0815	0	0.0000
238.00	155234	1590.3607	0	0.0000
232.00	80	1.0601	0	0.0000
236.00	57	16.2636	0	0.0000
U 238	143296	916.5034	0	0.0000
U 238	142820	932.3424	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.9756	0.1081	1.886E+04	1036.7124	ng/l	5.4957
U 238	1.9690	0.1075	1.888E+04	1033.7612	ng/l	5.4756
Bi 209	72654	4439.8120			ions/sec	
Bi 209	72654	4439.8120	98.7794	6.0425	%r	6.1172
233.00	53	7.0711				
234.00	55	5.3034				
235.00	368	13.0815				
238.00	155234	1590.3607				
232.00	80	1.0601				
236.00	57	16.2636				
U 238	143296	916.5034	1.848E+04	118.7411	ng/l	0.6424
U 238	142820	932.3424	1.850E+04	121.1381	ng/l	0.6548

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010657

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226226 df100
Sample Description:
Sample Type: Sample
Sequence Number: 201
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:53:14 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	162012	1.438E+04	0	0.0000
U 238	161236	1.433E+04	0	0.0000
Bi 209	73593	4530.2124	0	0.0000
Bi 209	73593	4530.2124	0	0.0000
233.00	58	2.4749	0	0.0000
234.00	62	6.3640	0	0.0000
235.00	656	3.1823	0	0.0000
238.00	165808	2173.5901	0	0.0000
232.00	80	4.9498	0	0.0000
236.00	69	0.3521	0	0.0000
U 238	161570	4404.5796	0	0.0000
U 238	160795	4403.3457	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.2015	0.1954	2.103E+04	1873.5515	ng/l	8.9090
U 238	2.1909	0.1947	2.101E+04	1872.5206	ng/l	8.9112
Bi 209	73593	4530.2124			ions/sec	
Bi 209	73593	4530.2124	100.0574	6.1656	%r	6.1620
233.00	58	2.4749				
234.00	62	6.3640				
235.00	656	3.1823				
238.00	165808	2173.5901				
232.00	80	4.9498				
236.00	69	0.3521				
U 238	161570	4404.5796	2.085E+04	570.6520	ng/l	2.7367
U 238	160795	4403.3457	2.084E+04	572.1210	ng/l	2.7459

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010658

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226242 df100
Sample Description:
Sample Type: Sample
Sequence Number: 202
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:55:47 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	162861	1.923E+04	0	0.0000
U 238	162329	1.919E+04	0	0.0000
Bi 209	74770	2469.3394	0	0.0000
Bi 209	74770	2469.3394	0	0.0000
233.00	58	1.0607	0	0.0000
234.00	57	4.5963	0	0.0000
235.00	417	16.2654	0	0.0000
238.00	162955	5626.8237	0	0.0000
232.00	70	13.4352	0	0.0000
236.00	58	9.8996	0	0.0000
U 238	162543	1.385E+04	0	0.0000
U 238	162012	1.383E+04	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.1782	0.2572	2.081E+04	2466.4070	ng/l	11.8539
U 238	2.1711	0.2567	2.082E+04	2468.5969	ng/l	11.8555
Bi 209	74770	2469.3394			ions/sec	
Bi 209	74770	2469.3394	101.6583	3.3607	%r	3.3059
233.00	58	1.0607				
234.00	57	4.5963				
235.00	417	16.2654				
238.00	162955	5626.8237				
232.00	70	13.4352				
236.00	58	9.8996				
U 238	162543	1.385E+04	2.098E+04	1794.5200	ng/l	8.5544
U 238	162012	1.383E+04	2.099E+04	1797.0229	ng/l	8.5598

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010659

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 203
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 18:58:21 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	157047	6805.9736	0	0.0000
U 238	156551	6770.9063	0	0.0000
Bi 209	75962	5082.4292	0	0.0000
Bi 209	75962	5082.4292	0	0.0000
233.00	47	7.7782	0	0.0000
234.00	52	10.6067	0	0.0000
235.00	397	5.3037	0	0.0000
238.00	158859	1037.8118	0	0.0000
232.00	163114	3785.4519	0	0.0000
236.00	50	3.8892	0	0.0000
U 238	156819	3701.0161	0	0.0000
U 238	156324	3703.6042	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.0674	0.0896	1.974E+04	859.2202	ng/l	4.3516
U 238	2.0609	0.0891	1.976E+04	857.2136	ng/l	4.3375
Bi 209	75962	5082.4292			ions/sec	
Bi 209	75962	5082.4292	103.2817	6.9171	%r	6.6973
233.00	47	7.7782				
234.00	52	10.6067				
235.00	397	5.3037				
238.00	158859	1037.8118				
232.00	163114	3785.4519				
236.00	50	3.8892				
U 238	156819	3701.0161	2.024E+04	479.4992	ng/l	2.3695
U 238	156324	3703.6042	2.025E+04	481.2046	ng/l	2.3758

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010660

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 204
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:00:56 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	657	0.5262	0	0.0000
U 238	509	15.6197	0	0.0000
Bi 209	75578	3190.5845	0	0.0000
Bi 209	75578	3190.5845	0	0.0000
233.00	48	3.5356	0	0.0000
234.00	45	4.5963	0	0.0000
235.00	55	0.7074	0	0.0000
238.00	517	1.7679	0	0.0000
232.00	107	0.3512	0	0.0000
236.00	46	4.5962	0	0.0000
U 238	657	28.2874	0	0.0000
U 238	510	37.1264	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	8.687E-03	6.962E-06	1.6318	0.0668	ng/l	4.0916
U 238	6.741E-03	2.067E-04	8.0648	1.9875	ng/l	24.6445
Bi 209	75578	3190.5845			ions/sec	
Bi 209	75578	3190.5845	102.7591	4.3423	%r	4.2258
233.00	48	3.5356				
234.00	45	4.5963				
235.00	55	0.7074				
238.00	517	1.7679				
232.00	107	0.3512				
236.00	46	4.5962				
U 238	657	28.2874	3.9199	3.6649	ng/l	93.4939
U 238	510	37.1264	9.8429	4.8238	ng/l	49.0077

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010661

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226248 df100
Sample Description:
Sample Type: Sample
Sequence Number: 205
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:03:30 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	122992	7891.5977	0	0.0000
U 238	122561	7882.9399	0	0.0000
Bi 209	74708	3544.3662	0	0.0000
Bi 209	74708	3544.3662	0	0.0000
233.00	57	3.8891	0	0.0000
234.00	53	1.0607	0	0.0000
235.00	322	9.1929	0	0.0000
238.00	133442	3058.8701	0	0.0000
232.00	68	10.2531	0	0.0000
236.00	59	2.8285	0	0.0000
U 238	122805	2056.3755	0	0.0000
U 238	122374	2069.1086	0	0.0000

	Net Intensity	Ratio/	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238		1.6463	0.1056	1.571E+04	1013.0015	ng/l	6.4497
U 238		1.6405	0.1055	1.572E+04	1014.7555	ng/l	6.4551
Bi 209	<	74708	3544.3662			ions/sec	
Bi 209		74708	3544.3662	101.5746	4.8238	%r	4.7491
233.00		57	3.8891				
234.00		53	1.0607				
235.00		322	9.1929				
238.00		133442	3058.8701				
232.00		68	10.2531				
236.00		59	2.8285				
U 238		122805	2056.3755	1.583E+04	266.4215	ng/l	1.6831
U 238		122374	2069.1086	1.584E+04	268.8366	ng/l	1.6968

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010662

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226248d df100
Sample Description:
Sample Type: Sample
Sequence Number: 206
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:06:04 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	125817	4921.2285	0	0.0000
U 238	125392	4915.5391	0	0.0000
Bi 209	74946	901.6086	0	0.0000
Bi 209	74946	901.6086	0	0.0000
233.00	50	7.4247	0	0.0000
234.00	60	2.1213	0	0.0000
235.00	317	4.9500	0	0.0000
238.00	121340	5340.6006	0	0.0000
232.00	71	15.2030	0	0.0000
236.00	61	0.3542	0	0.0000
U 238	125788	3408.7991	0	0.0000
U 238	125362	3408.3320	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	1.6788	0.0657	1.602E+04	629.7065	ng/l	3.9313
U 238	]	1.6731	0.0656	1.603E+04	630.7596	ng/l	3.9340
Bi 209	<	74946	901.6086			ions/sec	
Bi 209		74946	901.6086	101.8983	1.2271	%r	1.2042
233.00		50	7.4247				
234.00		60	2.1213				
235.00		317	4.9500				
238.00		121340	5340.6006				
232.00		71	15.2030				
236.00		61	0.3542				
U 238		125788	3408.7991	1.622E+04	441.6399	ng/l	2.7235
U 238		125362	3408.3320	1.623E+04	442.8402	ng/l	2.7282

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010663

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226249 df100
Sample Description:
Sample Type: Sample
Sequence Number: 207
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:08:39 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	128820	1.125E+04	0	0.0000
U 238	128369	1.121E+04	0	0.0000
Bi 209	75781	6219.1035	0	0.0000
Bi 209	75781	6219.1035	0	0.0000
233.00	43	3.8891	0	0.0000
234.00	52	0.3536	0	0.0000
235.00	353	15.2037	0	0.0000
238.00	136037	3583.6248	0	0.0000
232.00	64	7.4247	0	0.0000
236.00	49	3.1820	0	0.0000
U 238	128358	682.2413	0	0.0000
U 238	127910	669.9244	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.6999	0.1485	1.622E+04	1424.1876	ng/l	8.7804
U 238	1.6939	0.1479	1.623E+04	1422.1414	ng/l	8.7603
Bi 209	75781	6219.1035			ions/sec	
Bi 209	75781	6219.1035	103.0352	8.4641	%r	8.2148
233.00	43	3.8891				
234.00	52	0.3536				
235.00	353	15.2037				
238.00	136037	3583.6248				
232.00	64	7.4247				
236.00	49	3.1820				
U 238	128358	682.2413	1.655E+04	88.3904	ng/l	0.5341
U 238	127910	669.9244	1.656E+04	87.0424	ng/l	0.5255

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010664

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226250 df100
Sample Description:
Sample Type: Sample
Sequence Number: 208
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:11:14 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	123891	7089.4287	0	0.0000
U 238	123459	7044.2388	0	0.0000
Bi 209	73616	4939.5938	0	0.0000
Bi 209	73616	4939.5938	0	0.0000
233.00	57	0.0000	0	0.0000
234.00	57	2.4748	0	0.0000
235.00	316	18.7394	0	0.0000
238.00	129124	3547.6321	0	0.0000
232.00	80	5.3033	0	0.0000
236.00	59	6.7176	0	0.0000
U 238	123653	1223.9108	0	0.0000
U 238	123223	1239.8564	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.6829	0.0963	1.606E+04	923.5319	ng/l	5.7514
U 238	1.6771	0.0957	1.607E+04	920.2435	ng/l	5.7259
Bi 209	73616	4939.5938			ions/sec	
Bi 209	73616	4939.5938	100.0883	6.7227	%r	6.7168
233.00	57	0.0000				
234.00	57	2.4748				
235.00	316	18.7394				
238.00	129124	3547.6321				
232.00	80	5.3033				
236.00	59	6.7176				
U 238	123653	1223.9108	1.594E+04	158.5684	ng/l	0.9948
U 238	123223	1239.8564	1.595E+04	161.0930	ng/l	1.0097

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010665

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226252 df100
Sample Description:
Sample Type: Sample
Sequence Number: 209
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:13:49 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	146978	1.554E+04	0	0.0000
U 238	146480	1.547E+04	0	0.0000
Bi 209	75617	5912.9595	0	0.0000
Bi 209	75617	5912.9595	0	0.0000
233.00	54	5.3033	0	0.0000
234.00	56	6.0105	0	0.0000
235.00	385	35.3581	0	0.0000
238.00	152440	1411.7386	0	0.0000
232.00	63	1.7679	0	0.0000
236.00	57	6.7176	0	0.0000
U 238	146370	4046.5625	0	0.0000
U 238	145876	4012.0576	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.9437	0.2055	1.856E+04	1970.7987	ng/l	10.6195
U 238	1.9371	0.2045	1.857E+04	1966.9999	ng/l	10.5908
Bi 209	75617	5912.9595			ions/sec	
Bi 209	75617	5912.9595	102.8116	8.0475	%r	7.8274
233.00	54	5.3033				
234.00	56	6.0105				
235.00	385	35.3581				
238.00	152440	1411.7386				
232.00	63	1.7679				
236.00	57	6.7176				
U 238	146370	4046.5625	1.888E+04	524.2678	ng/l	2.7765
U 238	145876	4012.0576	1.890E+04	521.2815	ng/l	2.7585

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010666

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: pbw-f17w3
Sample Description:
Sample Type: Sample
Sequence Number: 210
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:16:25 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	724	0.8778	0	0.0000
U 238	549	0.6144	0	0.0000
Bi 209	72478	550.0076	0	0.0000
Bi 209	72478	550.0076	0	0.0000
233.00	52	4.2426	0	0.0000
234.00	63	3.1820	0	0.0000
235.00	61	0.0000	0	0.0000
238.00	565	30.0539	0	0.0000
232.00	64	12.0210	0	0.0000
236.00	45	0.7071	0	0.0000
U 238	724	4.5947	0	0.0000
U 238	549	3.5359	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238 ┐	9.993E-03	1.211E-05	14.1621	0.1161	ng/l	0.8201
U 238 ┘	7.575E-03	8.477E-06	16.0904	0.0815	ng/l	0.5066
Bi 209 <┘	72478	550.0076			ions/sec	
Bi 209	72478	550.0076	98.5394	0.7486	%r	0.7596
233.00	52	4.2426				
234.00	63	3.1820				
235.00	61	0.0000				
238.00	565	30.0539				
232.00	64	12.0210				
236.00	45	0.7071				
U 238	724	4.5947	12.6980	0.5953	ng/l	4.6880
U 238	549	3.5359	14.9431	0.4594	ng/l	3.0744

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010667

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: lcsw-f17w3 df20
Sample Description:
Sample Type: Sample
Sequence Number: 211
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:19:02 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	84900	5411.1123	0	0.0000
U 238	84528	5386.2710	0	0.0000
Bi 209	83003	1421.3177	0	0.0000
Bi 209	83003	1421.3177	0	0.0000
233.00	63	0.0000	0	0.0000
234.00	60	13.7887	0	0.0000
235.00	249	4.5964	0	0.0000
238.00	86107	992.0475	0	0.0000
232.00	91913	2598.7004	0	0.0000
236.00	67	4.2428	0	0.0000
U 238	84853	3957.3577	0	0.0000
U 238	84482	3938.7100	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	1.0229	0.0652	9727.3271	625.1800	ng/l	6.4270
U 238	1.0184	0.0649	9736.9453	624.0721	ng/l	6.4093
Bi 209	83003	1421.3177			ions/sec	
Bi 209	83003	1421.3177	112.8640	1.9344	%r	1.7139
233.00	63	0.0000				
234.00	60	13.7887				
235.00	249	4.5964				
238.00	86107	992.0475				
232.00	91913	2598.7004				
236.00	67	4.2428				
U 238	84853	3957.3577	1.091E+04	512.7105	ng/l	4.6984
U 238	84482	3938.7100	1.092E+04	511.7515	ng/l	4.6863

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010668

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226207 df50
Sample Description:
Sample Type: Sample
Sequence Number: 212
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:21:39 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	191669	1.512E+04	0	0.0000
U 238	191062	1.508E+04	0	0.0000
Bi 209	74701	2499.2800	0	0.0000
Bi 209	74701	2499.2800	0	0.0000
233.00	59	0.7074	0	0.0000
234.00	63	4.2427	0	0.0000
235.00	485	8.1324	0	0.0000
238.00	191663	8263.5811	0	0.0000
232.00	94	3.1823	0	0.0000
236.00	61	4.9498	0	0.0000
U 238	191416	8703.0576	0	0.0000
U 238	190809	8691.8232	0	0.0000

	Net Intensity	Ratio/	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.5658		0.2023	2.452E+04	1940.4969	ng/l	7.9126
U 238	2.5577		0.2019	2.454E+04	1941.8849	ng/l	7.9130
Bi 209	74701		2499.2800			ions/sec	
Bi 209	74701		2499.2800	101.5656	3.4015	%r	3.3491
233.00	59		0.7074				
234.00	63		4.2427				
235.00	485		8.1324				
238.00	191663		8263.5811				
232.00	94		3.1823				
236.00	61		4.9498				
U 238	191416		8703.0576	2.472E+04	1127.5576	ng/l	4.5616
U 238	190809		8691.8232	2.474E+04	1129.3174	ng/l	4.5656

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010669

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226207d df50
Sample Description:
Sample Type: Sample
Sequence Number: 213
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:24:16 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	193573	2.062E+04	0	0.0000
U 238	193040	2.060E+04	0	0.0000
Bi 209	72316	3607.1726	0	0.0000
Bi 209	72316	3607.1726	0	0.0000
233.00	45	6.3640	0	0.0000
234.00	56	10.6067	0	0.0000
235.00	434	7.7788	0	0.0000
238.00	198046	2845.5303	0	0.0000
232.00	77	0.7063	0	0.0000
236.00	57	0.7068	0	0.0000
U 238	193059	1.096E+04	0	0.0000
U 238	192526	1.097E+04	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238]	2.6768	0.2851	2.559E+04	2733.9382	ng/l	10.6844
U 238]	2.6694	0.2848	2.561E+04	2739.3652	ng/l	10.6945
Bi 209 <]	72316	3607.1726			ions/sec	
Bi 209	72316	3607.1726	98.3196	4.9093	%r	4.9932
233.00	45	6.3640				
234.00	56	10.6067				
235.00	434	7.7788				
238.00	198046	2845.5303				
232.00	77	0.7063				
236.00	57	0.7068				
U 238	193059	1.096E+04	2.493E+04	1420.0939	ng/l	5.6960
U 238	192526	1.097E+04	2.496E+04	1425.3365	ng/l	5.7109

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010670

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226209 df50
Sample Description:
Sample Type: Sample
Sequence Number: 214
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:26:54 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	188233	3206.2166	0	0.0000
U 238	187678	3205.4910	0	0.0000
Bi 209	78505	549.1568	0	0.0000
Bi 209	78505	549.1568	0	0.0000
233.00	53	0.0000	0	0.0000
234.00	50	7.0712	0	0.0000
235.00	453	12.0229	0	0.0000
238.00	188000	4840.4995	0	0.0000
232.00	141	0.7102	0	0.0000
236.00	52	9.8996	0	0.0000
U 238	188244	4522.4746	0	0.0000
U 238	187689	4517.2852	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.3977	0.0408	2.291E+04	391.6579	ng/l	1.7094
U 238	2.3906	0.0408	2.293E+04	392.6781	ng/l	1.7122
Bi 209	78505	549.1568			ions/sec	
Bi 209	78505	549.1568	106.7425	0.7474	%r	0.7002
233.00	53	0.0000				
234.00	50	7.0712				
235.00	453	12.0229				
238.00	188000	4840.4995				
232.00	141	0.7102				
236.00	52	9.8996				
U 238	188244	4522.4746	2.431E+04	585.9263	ng/l	2.4105
U 238	187689	4517.2852	2.433E+04	586.9250	ng/l	2.4124

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010671

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 215
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:29:31 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	157911	6660.0752	0	0.0000
U 238	157390	6652.5972	0	0.0000
Bi 209	78220	2424.0098	0	0.0000
Bi 209	78220	2424.0098	0	0.0000
233.00	61	1.7677	0	0.0000
234.00	55	11.3138	0	0.0000
235.00	405	18.7397	0	0.0000
238.00	163202	1.183E+04	0	0.0000
232.00	165714	1092.7314	0	0.0000
236.00	51	4.9498	0	0.0000
U 238	157807	1764.9321	0	0.0000
U 238	157286	1777.0060	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.0188	0.0851	1.928E+04	816.5327	ng/l	4.2355
U 238	2.0121	0.0850	1.929E+04	817.9254	ng/l	4.2393
Bi 209	78220	2424.0098			ions/sec	
Bi 209	78220	2424.0098	106.3544	3.2990	%r	3.1019
233.00	61	1.7677				
234.00	55	11.3138				
235.00	405	18.7397				
238.00	163202	1.183E+04				
232.00	165714	1092.7314				
236.00	51	4.9498				
U 238	157807	1764.9321	2.036E+04	228.6625	ng/l	1.1229
U 238	157286	1777.0060	2.038E+04	230.8841	ng/l	1.1329

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010672

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 216
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:32:06 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	709	49.0216	0	0.0000
U 238	531	39.6755	0	0.0000
Bi 209	77169	2681.6914	0	0.0000
Bi 209	77169	2681.6914	0	0.0000
233.00	58	0.3536	0	0.0000
234.00	58	7.4247	0	0.0000
235.00	62	4.5963	0	0.0000
238.00	562	43.8449	0	0.0000
232.00	100	8.4854	0	0.0000
236.00	55	1.0607	0	0.0000
U 238	708	24.3980	0	0.0000
U 238	531	21.2152	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	9.183E-03	6.352E-04	6.3910	6.0919	ng/l	95.3201
U 238	6.884E-03	5.141E-04	9.4417	4.9445	ng/l	52.3687
Bi 209	77169	2681.6914			ions/sec	
Bi 209	77169	2681.6914	104.9241	3.6497	%r	3.4785
233.00	58	0.3536				
234.00	58	7.4247				
235.00	62	4.5963				
238.00	562	43.8449				
232.00	100	8.4854				
236.00	55	1.0607				
U 238	708	24.3980	10.5601	3.1610	ng/l	29.9332
U 238	531	21.2152	12.5392	2.7565	ng/l	21.9828

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010673

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226211 df50
Sample Description:
Sample Type: Sample
Sequence Number: 217
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:34:43 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	154103	5312.7393	0	0.0000
U 238	153599	5327.3525	0	0.0000
Bi 209	76328	254.0502	0	0.0000
Bi 209	76328	254.0502	0	0.0000
233.00	54	1.0607	0	0.0000
234.00	60	3.5356	0	0.0000
235.00	391	13.0833	0	0.0000
238.00	158866	1726.3229	0	0.0000
232.00	79	4.2428	0	0.0000
236.00	66	1.4146	0	0.0000
U 238	154094	4800.0459	0	0.0000
U 238	153590	4815.7065	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.0190	0.0696	1.928E+04	667.4930	ng/l	3.4621
U 238	2.0123	0.0698	1.930E+04	671.2242	ng/l	3.4786
Bi 209	76328	254.0502			ions/sec	
Bi 209	76328	254.0502	103.7794	0.3458	%r	0.3332
233.00	54	1.0607				
234.00	60	3.5356				
235.00	391	13.0833				
238.00	158866	1726.3229				
232.00	79	4.2428				
236.00	66	1.4146				
U 238	154094	4800.0459	1.988E+04	621.8882	ng/l	3.1277
U 238	153590	4815.7065	1.990E+04	625.6985	ng/l	3.1443

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010674

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226213 df50
Sample Description:
Sample Type: Sample
Sequence Number: 218
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:37:18 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	178417	1.343E+04	0	0.0000
U 238	177885	1.340E+04	0	0.0000
Bi 209	74862	4545.9009	0	0.0000
Bi 209	74862	4545.9009	0	0.0000
233.00	53	1.0607	0	0.0000
234.00	53	2.8285	0	0.0000
235.00	426	2.1153	0	0.0000
238.00	174630	1310.0258	0	0.0000
232.00	63	1.4142	0	0.0000
236.00	62	4.9498	0	0.0000
U 238	178009	2594.5342	0	0.0000
U 238	177478	2596.1868	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.3833	0.1794	2.277E+04	1720.2240	ng/l	7.5536
U 238	2.3762	0.1790	2.279E+04	1721.1605	ng/l	7.5507
Bi 209	74862	4545.9009			ions/sec	
Bi 209	74862	4545.9009	101.7847	6.1869	%r	6.0784
233.00	53	1.0607				
234.00	53	2.8285				
235.00	426	2.1153				
238.00	174630	1310.0258				
232.00	63	1.4142				
236.00	62	4.9498				
U 238	178009	2594.5342	2.298E+04	336.1447	ng/l	1.4627
U 238	177478	2596.1868	2.300E+04	337.3192	ng/l	1.4664

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010675

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226214 df50
Sample Description:
Sample Type: Sample
Sequence Number: 219
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:39:49 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	204635	1751.7445	0	0.0000
U 238	204028	1811.6533	0	0.0000
Bi 209	75562	4788.4131	0	0.0000
Bi 209	75562	4788.4131	0	0.0000
233.00	60	3.8891	0	0.0000
234.00	60	3.8892	0	0.0000
235.00	485	18.7399	0	0.0000
238.00	201914	147.2329	0	0.0000
232.00	64	0.3522	0	0.0000
236.00	59	2.4749	0	0.0000
U 238	204690	1.472E+04	0	0.0000
U 238	204085	1.474E+04	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.7082	0.0232	2.589E+04	222.3209	ng/l	0.8587
U 238	2.7001	0.0240	2.591E+04	230.5752	ng/l	0.8899
Bi 209	75562	4788.4131			ions/sec	
Bi 209	75562	4788.4131	102.7367	6.5170	%r	6.3434
233.00	60	3.8891				
234.00	60	3.8892				
235.00	485	18.7399				
238.00	201914	147.2329				
232.00	64	0.3522				
236.00	59	2.4749				
U 238	204690	1.472E+04	2.644E+04	1907.1969	ng/l	7.2138
U 238	204085	1.474E+04	2.646E+04	1915.0566	ng/l	7.2375

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010676

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226218 df50
Sample Description:
Sample Type: Sample
Sequence Number: 220
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:42:21 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	176025	865.6841	0	0.0000
U 238	175484	864.1527	0	0.0000
Bi 209	73333	3487.6787	0	0.0000
Bi 209	73333	3487.6787	0	0.0000
233.00	61	2.8285	0	0.0000
234.00	58	3.1820	0	0.0000
235.00	422	20.8612	0	0.0000
238.00	175521	3507.8438	0	0.0000
232.00	67	13.7887	0	0.0000
236.00	67	12.0209	0	0.0000
U 238	176045	9239.6602	0	0.0000
U 238	175504	9212.7617	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	2.4003	0.0118	2.294E+04	113.2067	ng/l	0.4935
U 238	]	2.3930	0.0118	2.296E+04	113.3265	ng/l	0.4937
Bi 209	<	73333	3487.6787			ions/sec	
Bi 209		73333	3487.6787	99.7032	4.7467	%r	4.7608
233.00		61	2.8285				
234.00		58	3.1820				
235.00		422	20.8612				
238.00		175521	3507.8438				
232.00		67	13.7887				
236.00		67	12.0209				
U 238		176045	9239.6602	2.273E+04	1197.0792	ng/l	5.2672
U 238		175504	9212.7617	2.275E+04	1197.0023	ng/l	5.2623

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010677

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226219 df50
Sample Description:
Sample Type: Sample
Sequence Number: 221
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:44:54 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	177626	1.516E+04	0	0.0000
U 238	177070	1.511E+04	0	0.0000
Bi 209	76420	3123.1580	0	0.0000
Bi 209	76420	3123.1580	0	0.0000
233.00	55	6.7176	0	0.0000
234.00	62	3.1820	0	0.0000
235.00	438	20.8612	0	0.0000
238.00	181309	1.477E+04	0	0.0000
232.00	57	10.6067	0	0.0000
236.00	60	7.0711	0	0.0000
U 238	177316	7899.7275	0	0.0000
U 238	176761	7868.8833	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.3243	0.1984	2.221E+04	1902.2845	ng/l	8.5656
U 238	2.3171	0.1977	2.223E+04	1900.9213	ng/l	8.5525
Bi 209	76420	3123.1580			ions/sec	
Bi 209	76420	3123.1580	103.9045	4.2506	%r	4.0909
233.00	55	6.7176				
234.00	62	3.1820				
235.00	438	20.8612				
238.00	181309	1.477E+04				
232.00	57	10.6067				
236.00	60	7.0711				
U 238	177316	7899.7275	2.289E+04	1023.4792	ng/l	4.4710
U 238	176761	7868.8833	2.291E+04	1022.3939	ng/l	4.4627

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010678

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226220 df50
Sample Description:
Sample Type: Sample
Sequence Number: 222
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:47:27 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	237613	2.042E+04	0	0.0000
U 238	236928	2.044E+04	0	0.0000
Bi 209	76761	4620.7412	0	0.0000
Bi 209	76761	4620.7412	0	0.0000
233.00	51	1.4142	0	0.0000
234.00	52	1.0607	0	0.0000
235.00	582	58.3429	0	0.0000
238.00	244351	1.388E+04	0	0.0000
232.00	65	3.5356	0	0.0000
236.00	59	2.1213	0	0.0000
U 238	236998	6117.8633	0	0.0000
U 238	236313	6179.9482	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	3.0955	0.2661	2.960E+04	2551.4019	ng/l	8.6186
U 238	3.0866	0.2663	2.963E+04	2561.0605	ng/l	8.6444
Bi 209 <-	76761	4620.7412			ions/sec	
Bi 209	76761	4620.7412	104.3690	6.2888	%r	6.0255
233.00	51	1.4142				
234.00	52	1.0607				
235.00	582	58.3429				
238.00	244351	1.388E+04				
232.00	65	3.5356				
236.00	59	2.1213				
U 238	236998	6117.8633	3.062E+04	792.6230	ng/l	2.5882
U 238	236313	6179.9482	3.065E+04	802.9528	ng/l	2.6200

QUANTITATIVE ANALYSIS: SUMMARY REPORT

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226222 df50
Sample Description:
Sample Type: Sample
Sequence Number: 223
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:50:00 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	201902	5910.2314	0	0.0000
U 238	201326	5909.6479	0	0.0000
Bi 209	73570	540.8041	0	0.0000
Bi 209	73570	540.8041	0	0.0000
233.00	54	4.5962	0	0.0000
234.00	47	6.0105	0	0.0000
235.00	475	4.5966	0	0.0000
238.00	215019	6194.3208	0	0.0000
232.00	63	3.1820	0	0.0000
236.00	57	5.3034	0	0.0000
U 238	201880	4426.3169	0	0.0000
U 238	201305	4429.0737	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.7444	0.0803	2.624E+04	770.4019	ng/l	2.9364
U 238	2.7365	0.0803	2.626E+04	772.5072	ng/l	2.9417
Bi 209	73570	540.8041			ions/sec	
Bi 209	73570	540.8041	100.0255	0.7360	%r	0.7358
233.00	54	4.5962				
234.00	47	6.0105				
235.00	475	4.5966				
238.00	215019	6194.3208				
232.00	63	3.1820				
236.00	57	5.3034				
U 238	201880	4426.3169	2.607E+04	573.4683	ng/l	2.1994
U 238	201305	4429.0737	2.610E+04	575.4639	ng/l	2.2049

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010680

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226232 df50
Sample Description:
Sample Type: Sample
Sequence Number: 224
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:52:34 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	164265	5905.3779	0	0.0000
U 238	163478	5913.4180	0	0.0000
Bi 209	74351	218.1424	0	0.0000
Bi 209	74351	218.1424	0	0.0000
233.00	53	0.3541	0	0.0000
234.00	59	4.2427	0	0.0000
235.00	676	5.6575	0	0.0000
238.00	175526	3287.3452	0	0.0000
232.00	78	8.4855	0	0.0000
236.00	67	8.1319	0	0.0000
U 238	164256	5423.9063	0	0.0000
U 238	163469	5434.5303	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	2.2093	0.0794	2.111E+04	761.6802	ng/l	3.6090
U 238	2.1987	0.0795	2.109E+04	764.8770	ng/l	3.6270
Bi 209	74351	218.1424			ions/sec	
Bi 209	74351	218.1424	101.0888	0.2969	%r	0.2937
233.00	53	0.3541				
234.00	59	4.2427				
235.00	676	5.6575				
238.00	175526	3287.3452				
232.00	78	8.4855				
236.00	67	8.1319				
U 238	164256	5423.9063	2.120E+04	702.7147	ng/l	3.3147
U 238	163469	5434.5303	2.118E+04	706.1016	ng/l	3.3333

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010681

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226233 df50
Sample Description:
Sample Type: Sample
Sequence Number: 225
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:55:09 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	100611	2782.4434	0	0.0000
U 238	100076	2745.2437	0	0.0000
Bi 209	75754	2248.5886	0	0.0000
Bi 209	75754	2248.5886	0	0.0000
233.00	59	1.0607	0	0.0000
234.00	63	6.0104	0	0.0000
235.00	412	14.1432	0	0.0000
238.00	102197	78.4668	0	0.0000
232.00	160	9.8998	0	0.0000
236.00	62	9.5460	0	0.0000
U 238	100569	207.8292	0	0.0000
U 238	100035	228.6845	0	0.0000

		Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	]	1.3281	0.0367	1.265E+04	352.2359	ng/l	2.7834
U 238	]	1.3211	0.0362	1.265E+04	348.5108	ng/l	2.7555
Bi 209	<	75754	2248.5886			ions/sec	
Bi 209		75754	2248.5886	102.9980	3.0603	%r	2.9712
233.00		59	1.0607				
234.00		63	6.0104				
235.00		412	14.1432				
238.00		102197	78.4668				
232.00		160	9.8998				
236.00		62	9.5460				
U 238		100569	207.8292	1.295E+04	26.9261	ng/l	0.2079
U 238		100035	228.6845	1.294E+04	29.7127	ng/l	0.2296

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010682

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: 226233s df50
Sample Description:
Sample Type: Sample
Sequence Number: 226
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 19:57:44 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	1756790	1.502E+05	0	0.0000
U 238	1752522	1.498E+05	0	0.0000
Bi 209	74667	8309.5098	0	0.0000
Bi 209	74667	8309.5098	0	0.0000
233.00	136	15.5567	0	0.0000
234.00	82	3.5358	0	0.0000
235.00	4030	105.0891	0	0.0000
238.00	1779439	9.640E+04	0	0.0000
232.00	1803467	3.884E+04	0	0.0000
236.00	68	3.5356	0	0.0000
U 238	1748430	4.528E+04	0	0.0000
U 238	1744184	4.519E+04	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	23.5283	2.0121	2.256E+05	1.930E+04	ng/l	8.5547
U 238	23.4711	2.0069	2.257E+05	1.930E+04	ng/l	8.5525
Bi 209 <-	74667	8309.5098			ions/sec	
Bi 209	74667	8309.5098	101.5190	11.3091	%r	11.1399
233.00	136	15.5567				
234.00	82	3.5358				
235.00	4030	105.0891				
238.00	1779439	9.640E+04				
232.00	1803467	3.884E+04				
236.00	68	3.5356				
U 238	1748430	4.528E+04	2.264E+05	5866.2974	ng/l	2.5906
U 238	1744184	4.519E+04	2.266E+05	5871.3120	ng/l	2.5915

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010683

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccv
Sample Description:
Sample Type: Sample
Sequence Number: 227
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:00:19 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	167644	4240.5342	0	0.0000
U 238	167064	4238.9116	0	0.0000
Bi 209	76117	1382.0563	0	0.0000
Bi 209	76117	1382.0563	0	0.0000
233.00	75	4.9498	0	0.0000
234.00	68	6.7176	0	0.0000
235.00	437	9.9016	0	0.0000
238.00	170777	6799.9751	0	0.0000
232.00	170113	2761.8706	0	0.0000
236.00	67	7.7783	0	0.0000
U 238	167682	7282.8594	0	0.0000
U 238	167102	7271.8145	0	0.0000

	Net Intensity	Ratio/	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238		2.2025	0.0557	2.104E+04	534.2613	ng/l	2.5393
U 238		2.1948	0.0557	2.105E+04	535.5692	ng/l	2.5441
Bi 209	<	76117	1382.0563			ions/sec	
Bi 209		76117	1382.0563	103.4916	1.8810	%r	1.8175
233.00		75	4.9498				
234.00		68	6.7176				
235.00		437	9.9016				
238.00		170777	6799.9751				
232.00		170113	2761.8706				
236.00		67	7.7783				
U 238		167682	7282.8594	2.164E+04	943.5585	ng/l	4.3595
U 238		167102	7271.8145	2.165E+04	944.8175	ng/l	4.3631

QUANTITATIVE ANALYSIS: SUMMARY REPORT

010684

Data Set: june03-misc6
Data Set Description:
Parameter File: u_tot_in

Sample ID: ccb
Sample Description:
Sample Type: Sample
Sequence Number: 228
Blank: Not Subtracted
Dilution Factor: 1
Number of Repeats: 2
Time: 20:02:54 Jun 19 2003
Signal Profile Processing: Average
Spectral Peak Processing: Average
Deadtime Correction: 88

Calibration File: [Untitled]
Calibration: External Standard

	Sample Intensity	Std. Dev.	Blank Intensity	Std. Dev.
U 238	768	18.0050	0	0.0000
U 238	597	11.9671	0	0.0000
Bi 209	75961	146.3570	0	0.0000
Bi 209	75961	146.3570	0	0.0000
233.00	56	5.6569	0	0.0000
234.00	55	2.4750	0	0.0000
235.00	60	3.1820	0	0.0000
238.00	639	58.3429	0	0.0000
232.00	182	16.2640	0	0.0000
236.00	59	0.3536	0	0.0000
U 238	768	19.4450	0	0.0000
U 238	597	13.0856	0	0.0000

	Net Ratio/ Intensity	Std. Dev.	Conc.	Std. Dev.		% RSD
U 238	0.0101	2.370E-04	15.3205	2.2731	ng/l	14.8369
U 238	7.863E-03	1.575E-04	18.8574	1.5151	ng/l	8.0345
Bi 209	75961	146.3570			ions/sec	
Bi 209	75961	146.3570	103.2801	0.1992	%r	0.1929
233.00	56	5.6569				
234.00	55	2.4750				
235.00	60	3.1820				
238.00	639	58.3429				
232.00	182	16.2640				
236.00	59	0.3536				
U 238	768	19.4450	18.3992	2.5193	ng/l	13.6923
U 238	597	13.0856	21.2128	1.7002	ng/l	8.0150

010685

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

Certificates of Analysis

FISHER SCIENTIFIC
TRACEMETAL GRADE NITRIC ACID

CERTIFICATE OF ANALYSIS

Catalog No. A509 Lot No: 1103030
Date: March, 2003

Tests	Units	Value
Assay	%	70%
Color	APHA	<10
Aluminum	ppb	<0.2
Antimony	ppb	<0.1
Arsenic	ppb	<0.1
Barium	ppb	<0.1
Beryllium	ppb	<0.1
Bismuth	ppb	<0.1
Boron	ppb	<1
Cadmium	ppb	<0.1
Calcium	ppb	<0.5
Chromium	ppb	<0.1
Cobalt	ppb	<0.1
Copper	ppb	<0.1
Iron	ppb	<0.5
Lead	ppb	<0.1
Lithium	ppb	<0.1
Magnesium	ppb	<0.2
Manganese	ppb	<0.1
Mercury	ppb	<0.2
Molybdenum	ppb	<0.1
Nickel	ppb	<0.1
Potassium	ppb	<0.2
Selenium	ppb	<0.1
Silver	ppb	<0.1
Sodium	ppb	<0.2
Strontium	ppb	<0.1
Thorium	ppb	<0.1
Tin	ppb	<0.1
Titanium	ppb	<0.1
Uranium	ppb	<0.1
Vanadium	ppb	<0.1
Zinc	ppb	<0.2
Zirconium	ppb	<0.1

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 5/20/03
DATE EXPIRED: 5/19/03
DATE OPENED: 5/19/03
INORG: 4092->4017 PO: F52352

Element concentrations are at the point of bottling. Concentrations of some elements in particular, Ca, Si, K, Na, B, Al, Mg & Mn will increase due to storage in glass bottles.

B McKelvey

Dr. B. McKelvey
QA/QC Manager

Fisher Scientific Chemical Division
Pittsburgh, PA., 15275 Phone (412) 490-8300

Fisher Chemical

010687

FISHER SCIENTIFIC
TRACEMETAL GRADE NITRIC ACID

CERTIFICATE OF ANALYSIS

Catalog No. A509 **Lot No: 1103030**
Date: March, 2003

Tests	Units	Value
Assay	%	70%
Color	APHA	<10
Aluminum	ppb	<0.2
Antimony	ppb	<0.1
Arsenic	ppb	<0.1
Barium	ppb	<0.1
Beryllium	ppb	<0.1
Bismuth	ppb	<0.1
Boron	ppb	<1
Cadmium	ppb	<0.1
Calcium	ppb	<0.5
Chromium	ppb	<0.1
Cobalt	ppb	<0.1
Copper	ppb	<0.1
Iron	ppb	<0.5
Lead	ppb	<0.1
Lithium	ppb	<0.1
Magnesium	ppb	<0.2
Manganese	ppb	<0.1
Mercury	ppb	<0.2
Molybdenum	ppb	<0.1
Nickel	ppb	<0.1
Potassium	ppb	<0.2
Selenium	ppb	<0.1
Silver	ppb	<0.1
Sodium	ppb	<0.2
Strontium	ppb	<0.1
Thorium	ppb	<0.1
Tin	ppb	<0.1
Titanium	ppb	<0.1
Uranium	ppb	<0.1
Vanadium	ppb	<0.1
Zinc	ppb	<0.2
Zirconium	ppb	<0.1

Element concentrations are at the point of bottling. Concentrations of some elements in particular, Ca, Si, K, Na, B, Al, Mg & Mn will increase due to storage in glass bottles.

B McKelvey

Dr. B. McKelvey
QA/QC Manager

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Fisher Chemical
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INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 5/6/03
DATE EXPIRED: 5/6/2003 DR
DATE OPENED: 5/6/03
INORG: 4051-74056 PO: ES2181

FISHER SCIENTIFIC
TRACEMETAL GRADE NITRIC ACID

CERTIFICATE OF ANALYSIS

Catalog No. A509 Lot No: 1102100

Date: October, 2002

Tests	Units	Value
Assay	%	70%
Color	APHA	<10
Aluminum	ppb	<0.2
Antimony	ppb	<0.1
Arsenic	ppb	<0.1
Barium	ppb	<0.1
Beryllium	ppb	<0.1
Bismuth	ppb	<0.1
Boron	ppb	1
Cadmium	ppb	<0.1
Calcium	ppb	<0.5
Chromium	ppb	<0.1
Cobalt	ppb	<0.1
Copper	ppb	<0.1
Iron	ppb	<0.5
Lead	ppb	<0.1
Lithium	ppb	<0.1
Magnesium	ppb	<0.2
Manganese	ppb	<0.1
Mercury	ppb	<0.2
Molybdenum	ppb	<0.1
Nickel	ppb	<0.1
Potassium	ppb	<0.2
Selenium	ppb	<0.1
Silver	ppb	<0.1
Sodium	ppb	<0.2
Strontium	ppb	<0.1
Thorium	ppb	<0.1
Tin	ppb	<0.1
Titanium	ppb	<0.1
Uranium	ppb	<0.1
Vanadium	ppb	<0.1
Zinc	ppb	<0.2
Zirconium	ppb	<0.1

Element concentrations are at the point of bottling. Concentrations of some elements in particular, Ca, Si, K, Na, B, Al, Mg & Mn will increase due to storage in glass bottles.

B McKelvey

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Fisher Chemical

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 01/15/03
DATE EXPIRED: 01/15/2013
DATE OPENED: 01/15/03
INORG: 39147 3919 PO: F52073

010689

FISHER SCIENTIFIC
TRACEMETAL GRADE HYDROCHLORIC ACID

CERTIFICATE OF ANALYSIS

Catalog No. A508 **Lot No: 4102110**
Date: December, 2002

Tests	Units	Value
Assay	%	36%
Color	APHA	<10
Aluminum	ppb	<0.5
Antimony	ppb	<0.1
Arsenic	ppb	<0.1
Barium	ppb	<0.1
Beryllium	ppb	<0.1
Bismuth	ppb	<0.1
Boron	ppb	<1
Cadmium	ppb	<0.1
Calcium	ppb	<0.5
Chromium	ppb	<0.1
Cobalt	ppb	<0.1
Copper	ppb	<0.1
Iron	ppb	<0.5
Lead	ppb	<0.1
Lithium	ppb	<0.1
Magnesium	ppb	<0.5
Manganese	ppb	<0.1
Mercury	ppb	<0.2
Molybdenum	ppb	<0.1
Nickel	ppb	<0.1
Potassium	ppb	<0.1
Selenium	ppb	<0.1
Silver	ppb	<0.1
Sodium	ppb	<0.5
Strontium	ppb	<0.1
Thorium	ppb	<0.1
Tin	ppb	<0.1
Titanium	ppb	<0.1
Uranium	ppb	<0.1
Vanadium	ppb	<0.1
Zinc	ppb	<0.5
Zirconium	ppb	<0.1

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 5/6/03
DATE EXPIRED: 5/6/2013
DATE OPENED: 5/6/03
INORG: 4077-7 4082 PO: F52181

Element concentrations are at the point of bottling. Concentrations of some elements in particular, Ca, Si, K, Na, B, Al, Mg & Mn will increase due to storage in glass bottles.

B McKelvey

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Certificate of Analysis

010690

DATE OF ANALYSIS 6/13/02
DATE EXPIRES 7/1/2003 DR
DATE OPENED 6/19/02
INCEPT: 3493 PO#: F57940

CUSTOM-GRADE MULTIELEMENT SOLUTION CCS-1 containing:

100 µg/mL ea: Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sm, Sc, Tb, Th, Tm, U*, Yb, Y

Matrix: 5% (abs) HNO_3 Lot No: S-CICP11010

***NOTICE TO ICP-MS USERS:** The ^{235}U in this standard is depleted. The certified abundances in Atom % are as follows:

		Natural Abundance	IV's Certified Abundance
	Isotope	Atom %	Atom %
Uranium	^{238}U	99.3	99.8 ± 0.1
	^{235}U	0.70	0.204 ± 0.002

This certifies all the above concentrations to be as indicated ± 1% relative at the 95% confidence level for a period of 1 year. (See expiration date below)

TRACEABILITY DOCUMENTATION:

Concentrates for all the above elements are based upon one of the following methods and are traceable as listed:

Method	Checked Against
Calculated, based on starting material	NIST Weights
EDTA Titration	NIST SRM 928 Lead Nitrate

Concentrates for all the above elements were analyzed by ICP against the following NIST SRM's: Elemental Symbol (NIST SRM No.) Ce(3110); Dy(3115a); Er(3116a); Eu(3117a); Gd(3118a); Ho(3123a); La(3127a); Lu(3130a); Nd(3135a); Pr(3142a); Sm(3147a); Sc(3148a); Tb(3157a); Th(3159); Tm(3160a); U(3164); Yb(3166a); Y(3167a)

We use purified acids, 18 megohm double deionized water & meticulously cleaned bottles in the manufacturing of Custom-Grade standards. We always use "in-house calibration checked" Class A Glassware. All balances are checked daily using in-house procedure number 6-IMM-001. The weights used for testing are annually compared to Gerhart Scale Corporation's master weights and are traceable to the National Institute of Standards and Technology (NIST). The NIST Traceability numbers are 428359B and 454678. The NIST test number is 822/260017-98.

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.045 g/mL

The thermometers used in the determination of the final densities are calibrated versus standard thermometer no. 903-2680 which was certified in accordance with the procedures outlined by ASTM E77-87 and NIST Monograph 150 using NIST Test#, Std#'s: 769543, 217368/769543, 217368/P14452, 176240/P14452, 176240.

Rev.071701KSL

Inorganic Ventures, Inc.
195 Lehigh Avenue • Suite 4 • Lakewood, NJ 08701
Orders: 800-669-6799 • FAX (732) 901-1903
Technical Support: 800-569-6799

Quality Assurance Manager Paul R. Haines

Expires: EXPIRES 1/2/2003

SPEXertificate™ 010691

Certificate of Reference Material

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 01/16/03
DATE EXPIRED: 01/15/04 OK
DATE OPENED: 01/30/03
INORG: 3930 PO: F50073

Catalog Number: CLMS-1 **Lot No.:** 22-68AS
Description: **Multi-Element Solution 1**
Matrix: 5% Nitric Acid

This **CLARITAS PPT** ®certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentration.
Refer to side 2 for details of measurement uncertainties.

Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled (mg/L)	Measured (mg/L)	NIST SRM	Analyte	Labeled (mg/L)	Measured (mg/L)	NIST SRM
Ce	10.00	9.88	3110	Pr	10.00	10.06	3142a
Dy	10.00	9.96	3115a	Sc	10.00	10.03	3148a
Er	10.00	10.06	3116a	Sm	10.00	9.95	3147a
Eu	10.00	10.06	3117a	Tb	10.00	10.07	3157a
Gd	10.00	9.95	3118a	Th	10.00	9.95	3159
Ho	10.00	9.96	3123a	Tm	10.00	10.02	3160a
La	10.00	10.05	3127a	Y	10.00	9.98	3167a
Lu	10.00	9.90	3130a	Yb	10.00	10.02	3166a
Nd	10.00	10.04	3135a				

Spex Reference Multi: Lot #4-141BDREF, 16-58AS, 15-80AS

Trace Metallic Impurities in the Actual Solution, in PPB, via ICPMS Analysis:

Ag	<0.50	Cd	<0.04	Hg	<0.80	Nb	<0.03	Ru	<0.30	Tl	<0.07
Al	6.00	Co	<0.20	In	<0.01	Ni	<0.20	Sb	0.30	U	0.04
As	100.00	Cr	<2.00	Ir	0.40	P	<100.00	Se	<90.00	V	<0.60
Au	<0.80	Cs	<0.02	K	<90.00	Pb	2.00	Si	<100.00	W	40.00
B	<50.00	Cu	0.40	Li	<0.50	Pd	<0.90	Sn	0.80	Zn	2.00
Ba	<1.00	Fe	4.00	Mg	2.00	Pt	<0.04	Sr	3.00	Zr	0.60
Be	<0.50	Ga	0.70	Mn	<0.70	Rb	6.00	Ta	60.00		
Bi	0.07	Ge	100.00	Mo	<0.06	Re	0.60	Te	<1.00		
Ca	9.00	Hf	50.00	Na	<7.00	Rh	<0.02	Ti	<0.70		

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% on the average of all the certified concentrations with no single analyte exceeding +/- 2%. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: JAN -- '03 Certifying Officer: N. Kocherlakota

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SPEXertificate™

Certificate of Reference Material

010692

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 01/14/03
DATE EXPIRED: 01/15/04 OK
DATE OPENED: 01/30/03
INORG: 3231 PO: F52023

Catalog Number: CLMS-2 **Lot No.:** 6-74VY
Description: **Multi-element Solution 2**
Matrix: 5% Nitric Acid

This **CLARITAS PPT ®**certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentration.
Refer to side 2 for details of measurement uncertainties.

Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled (mg/L)	Measured (mg/L)	NIST SRM	Analyte	Labeled (mg/L)	Measured (mg/L)	NIST SRM
Ag	10	9.99	3151	In	10	9.69	3124a
Al	10	9.85	3101a	K	10	9.94	3141a
As	10	9.96	3103a	Li	10	9.95	3129a
Ba	10	9.96	3104a	Mg	10	9.96	3131a
Be	10	9.99	3105a	Mn	10	9.98	3132
Bi	10	9.99	3106	Na	10	9.94	3152a
Ca	10	9.93	3109a	Ni	10	10.01	3136
Cd	10	10.00	3108	Pb	10	9.95	3128
Co	10	10.00	3113	Rb	10	10.05	3145
Cr	10	9.97	3112a	Se	10	9.99	3149
Cs	10	10.02	3111a	Sr	10	10.00	3153a
Cu	10	10.01	3114	TL	10	9.99	3158
Fe	10	9.94	3126a	U	10	9.99	3164
Ga	10	9.84	3119a	V	10	9.95	3165
				Zn	10	9.97	3168a

Spex CertiPrep Reference Multi: Lot #18-78ASREF, 5-248VYREF

Trace Metallic Impurities in the Actual Solution, in PPB, via ICPMS Analysis:

Au	<0.60	Hf	<0.03	Nd	<0.02	Sb	0.50	Th	<0.02
B	<7.00	Hg	<0.80	P	<1000.00	Sc	<3.00	Ti	<3.00
Ce	0.30	Ho	<0.03	Pd	<3.00	Si	<100.00	Tm	<0.01
Dy	<0.01	Ir	<0.10	Pr	<0.01	Sm	0.40	W	<0.09
Er	<0.02	La	0.10	Pt	<0.10	Sn	<0.10	Y	0.10
Eu	0.90	Lu	<0.02	Re	0.50	Ta	<0.03	Yb	<0.03
Gd	<0.10	Mo	0.20	Rh	0.60	Tb	<0.03	Zr	0.20
Ge	<0.80	Nb	0.05	Ru	0.20	Te	<2.00		

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% on the average of all the certified concentrations with no single analyte exceeding +/- 2%. This includes uncertainty of measurements and other effects, such as transpiration losses. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: JAN -- '03 Certifying Officer: N. Kocherlakota

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Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Scandium IN 5% HNO_3 (abs)

Catalog Number: CGSC1-1and CGSC1-5

010693

Lot Number: **W-SC02055**

Starting Material:	Sc_2O_3
Starting Material Purity:	99.99%
Starting Material Lot No:	632-5721

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 3/26/03
DATE EXPIRED: 4/01/2004
DATE OPENED: 3/28/03
INORG: 4025 PO: F52167

CERTIFIED CONCENTRATION: 1000 ± 5 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 1000 ± 5 µg/mL
Method: EDTA Titration vs NIST SRM 928 Lead Nitrate.

Instrument Analysis: 995 ± 5 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3148a.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.** An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	<0.070	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	M	Mg	<0.0030	M	Rh	<0.00010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	M	Mn	<0.00040	M	Rb	<0.00010	M	Th	0.0028
M	Be	<0.000050	M	Ga	<0.00010	O	Hg	i	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	0.0043	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
O	B	<0.020	M	Au	<0.00030	M	Nd	<0.00020	s	Sc		M	Ti	<0.0050
M	Cd	<0.00030	M	Hf	0.0030	O	Ni	<0.084	O	Se	<0.67	M	W	<0.0010
O	Ca	0.016	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.034	M	U	<0.00020
M	Ce	<0.00050	M	In	<0.00010	n	Os		M	Ag	0.0050	M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	<0.16	M	Yb	<0.00010
M	Cr	<0.00050	O	Fe	<0.16	O	P	i	M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	n	S		M	Zn	0.0075
M	Cu	<0.00060	M	Pb	0.00050	O	K	<5.01	M	Ta	<0.00070	M	Zr	0.032

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.038 g/mL **(over)**

QA:KL Rev.031303JTS

Paul R Haines

Inorganic Ventures, Inc.
195 Lehigh Avenue • Suite 4 • Lakewood, NJ 08701
Orders: 800-669-6799 • FAX (732) 901-1903
Technical Support: 800-569-6799

Quality Assurance Manager

EXPIRES 1 APR 2004

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010694

Certificate of Reference Material

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 05/15/03
DATE EXPIRED: 05/15/2004
DATE OPENED: 05/15/03
INORG: 4074 PO: F52351

Catalog Number: SPIKE-1 **Lot No.:** 25-23AS
Description: **Spike Sample Standard 1**
Matrix: 5% Nitric Acid/tr Tartaric Acid - HF

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentration.

Refer to side 2 for details of measurement uncertainties.

Instrumental Analysis by ICP Spectrometer:

Element	Labeled (mg/L)	Measured (mg/L)	NIST SRM	Element	Labeled (mg/L)	Measured (mg/L)	NIST SRM
Al	200	199.51	3101a	Pb	50	49.98	3128
As	200	199.89	3103a	Sb	50	50.02	3102a
Ba	200	199.68	3104a	V	50	49.95	3165
Se	200	200.10	3149	Zn	50	50.02	3168a
TL	200	200.07	3158	Cu	25	25.34	3114
Fe	100	99.91	3126a	Cr	20	20.04	3112a
Co	50	50.25	3113	Ag	5	5.00	3151
Mn	50	49.98	3132	Be	5	5.00	3105a
Ni	50	50.11	3136	Cd	5	4.99	3108

Spex Reference Multi: Lot #2-61BD, 17-55AS, 19-85ASREF

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% on the average of all the certified concentrations with no single component exceeding +/- 2%. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: MAY '03 Certifying Officer: N. Kocherlakota

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INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 05/09/03
DATE EXPIRED: 05/15/2004
DATE OPENED: 05/13/03
INORG: 4070 PO: F52180

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Certificate of Reference Material

Catalog Number: ICAL-1 **Lot No.:** 6-104VY
Description: **Instrument Calibration Standard 1**
Matrix: 5% Nitric Acid

This **ASSURANCE** ®certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentration.

Refer to side 2 for details of measurement uncertainties.

Instrumental Analysis by ICP Spectrometer:

Element	Labeled (mg/L)	Measured (mg/L)	NIST SRM
Ca	5,000	4,984.92	3109a
K	5,000	4,990.26	3141a
Mg	5,000	4,991.82	3131a
Na	5,000	4,998.07	3152a

Spex Reference Multi: Lot #10-100AS, 12-113AS, 5-198VY, 6-28VY-REF

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% on the average of all the certified concentrations with no single element exceeding +/-2%. This includes uncertainty of measurements and other effects, such as transpiration losses. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: MAY '03 Certifying Officer: N. Kocherlakota

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Certificate of Analysis

010696

CUSTOM-GRADE SOLUTION 1000 µg/mL Silicon in H_2O tr HNO_3 tr HF

Catalog Number: CGSI1-1, CGSI1-2, and CGSI1-5

This standard should **not** be prepared or stored in glass.

Lot Number: **T-SI02076**

Starting Material:	SiO_2
Starting Material Purity:	99.999%
Starting Material Lot No:	C05310C

DATE RECEIVED: 6/19/02
DATE EXPIRED: 7/01/2003
DATE OPENED: 6/19/02
INORG: 3500 PO: E51941

CERTIFIED CONCENTRATION: 996 ± 3 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 1000 µg/mL
Method: Calculated, based on starting material.

Instrument Analysis: 996 ± 3 µg/mL (Average of 2 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3150.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	0.030	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	O	Mg	<0.010	M	Rh	<0.00010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	M	Mn	<0.00040	M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	M	Ga	<0.00010	O	Hg	<0.030	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
n	B		M	Au	<0.00030	M	Nd	<0.00020	M	Sc	<0.0010	M	Ti	<0.0050
M	Cd	<0.00030	M	Hf	<0.00020	O	Ni	<0.050	i	Se		M	W	<0.0010
O	Ca	<0.010	M	Ho	<0.000050	M	Nb	<0.000050	s	Si		M	U	<0.00020
M	Ce	<0.00050	O	In	<0.070	n	Os		M	Ag	<0.00020	M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	<0.090	M	Yb	<0.00010
M	Cr	<0.00050	O	Fe	<0.050	i	P		M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	n	S		M	Zn	<0.0020
M	Cu	<0.00060	M	Pb	<0.00030	n	K		M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.002 g/mL

QA:KL Rev.031202JTS

(over)

Inorganic Ventures, Inc.
195 Lehigh Avenue • Suite 4 • Lakewood, NJ 08701
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Technical Support: 800-569-6799

Paul R. Haines
Quality Assurance Manager

EXPIRES 1 JUL 2003

010697

FISHER SCIENTIFIC
TRACEMETAL GRADE NITRIC ACID

CERTIFICATE OF ANALYSIS

Catalog No. A509 Lot No: 1103030
Date: March, 2003

Tests	Units	Value
Assay	%	70%
Color	APHA	<10
Aluminum	ppb	<0.2
Antimony	ppb	<0.1
Arsenic	ppb	<0.1
Barium	ppb	<0.1
Beryllium	ppb	<0.1
Bismuth	ppb	<0.1
Boron	ppb	<1
Cadmium	ppb	<0.1
Calcium	ppb	<0.5
Chromium	ppb	<0.1
Cobalt	ppb	<0.1
Copper	ppb	<0.1
Iron	ppb	<0.5
Lead	ppb	<0.1
Lithium	ppb	<0.1
Magnesium	ppb	<0.2
Manganese	ppb	<0.1
Mercury	ppb	<0.2
Molybdenum	ppb	<0.1
Nickel	ppb	<0.1
Potassium	ppb	<0.2
Selenium	ppb	<0.1
Silver	ppb	<0.1
Sodium	ppb	<0.2
Strontium	ppb	<0.1
Thorium	ppb	<0.1
Tin	ppb	<0.1
Titanium	ppb	<0.1
Uranium	ppb	<0.1
Vanadium	ppb	<0.1
Zinc	ppb	<0.2
Zirconium	ppb	<0.1

Element concentrations are at the point of bottling. Concentrations of some elements in particular, Ca, Si, K, Na, B, Al, Mg & Mn will increase due to storage in glass bottles.

B McKelvey

Dr. B. McKelvey
QA/QC Manager

Fisher Scientific Chemical Division
Pittsburgh, PA., 15275 Phone (412) 490-8300

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INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 5/6/03
DATE EXPIRED: 5/6/2003 DR
DATE OPENED: 5/6/03
INORG: 4051-74056 PO: ES2181

010698

FISHER SCIENTIFIC
TRACEMETAL GRADE HYDROCHLORIC ACID

CERTIFICATE OF ANALYSIS

Catalog No. A508 **Lot No: 4102080**
Date: September, 2002

Tests	Units	Value
Assay	%	36%
Color	APHA	<10
Aluminum	ppb	<0.5
Antimony	ppb	<0.1
Arsenic	ppb	<0.1
Barium	ppb	<0.1
Beryllium	ppb	<0.1
Bismuth	ppb	<0.1
Boron	ppb	<1
Cadmium	ppb	<0.1
Calcium	ppb	<0.5
Chromium	ppb	<0.1
Cobalt	ppb	<0.1
Copper	ppb	<0.1
Iron	ppb	<0.5
Lead	ppb	<0.1
Lithium	ppb	<0.1
Magnesium	ppb	<0.5
Manganese	ppb	<0.1
Mercury	ppb	<0.2
Molybdenum	ppb	<0.1
Nickel	ppb	<0.1
Potassium	ppb	<0.1
Selenium	ppb	<0.1
Silver	ppb	<0.1
Sodium	ppb	<0.5
Strontium	ppb	<0.1
Thorium	ppb	<0.1
Tin	ppb	<0.1
Titanium	ppb	<0.1
Uranium	ppb	<0.1
Vanadium	ppb	<0.1
Zinc	ppb	<0.5
Zirconium	ppb	<0.1

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 3/24/03
DATE EXPIRED: 3/24/2013 DR
DATE OPENED: 3/24/03
INORG: 4017-7 4022 PO: F52171

Element concentrations are at the point of bottling. Concentrations of some elements in particular, Ca, Si, K, Na, B, Al, Mg & Mn will increase due to storage in glass bottles.

B McKelvey

Dr. B. McKelvey
QA/QC Manager

Fisher Scientific Chemical Division
Pittsburgh, PA., 15275 Phone (412) 490-8300

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Certificate of Analysis

010699

CUSTOM-GRADE SOLUTION 10,000 µg/mL Scandium IN 5% HNO_3 (abs)

Catalog Number: CGSC10-1and CGSC10-5

Lot Number: **T-QSC01104**

Starting Material:	Sc_2O_3
Starting Material Purity:	99.999%
Starting Material Lot No:	632-5721

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 9/4/02
DATE EXPIRED: 10/1/2003 DR
DATE OPENED: 9/4/02
INORG: 3683 PO: P52048

CERTIFIED VALUE: 10,056 µg/mL

The certified value is the average of the classical wet assay and instrument analysis unless otherwise specified. All standards are accurate to a relative precision of ± 0.5% at the 95% confidence level for a period of 1 year. (See expiration date below)

Classical Wet Assay: 10,040 µg/mL

Method: EDTA Titration vs NIST SRM 928 Lead Nitrate

Sufficient number of sample measurements were made to give a minimum relative precision of ± 0.3% at the 95% confidence level.

Instrument Analysis: 10,071 µg/mL

Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3148a

Sufficient number of sample measurements were made to give a minimum relative precision of ± 0.5% at the 95% confidence level.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**.
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	<0.07	M	Dy	<0.006	M	Li	<0.01	M	Pr	<0.0003	M	Te	<0.03
M	Sb	<0.0005	M	Er	<0.005	M	Lu	<0.0004	M	Re	<0.001	M	Tb	<0.0003
M	As	<0.01	M	Eu	<0.003	M	Mg	<0.03	M	Rh	<0.001	M	Tl	<0.001
M	Ba	<0.01	M	Gd	<0.001	M	Mn	<0.004	M	Rb	<0.001	M	Th	0.028
M	Be	<0.0005	M	Ga	<0.001	O	Hg	i	M	Ru	<0.002	M	Tm	<0.0004
M	Bi	0.043	M	Ge	<0.006	M	Mo	<0.002	M	Sm	<0.001	M	Sn	<0.005
O	B	<0.034	M	Au	<0.003	M	Nd	<0.002	s	Sc		n	Ti	
M	Cd	<0.003	M	Hf	0.03	O	Ni	<0.084	O	Se	<0.67	M	W	<0.01
O	Ca	0.17	M	Ho	<0.0005	M	Nb	<0.0005	O	Si	<0.034	M	U	<0.002
M	Ce	<0.005	M	In	<0.001	n	Os		M	Ag	0.005	M	V	<0.002
M	Cs	<0.0003	M	Ir	<0.005	M	Pd	<0.005	O	Na	<0.16	M	Yb	<0.001
M	Cr	<0.005	O	Fe	<0.16	O	P	i	M	Sr	<0.0005	M	Y	<0.04
M	Co	<0.003	M	La	<0.0005	M	Pt	<0.002	n	S		M	Zn	0.075
M	Cu	<0.006	M	Pb	0.005	O	K	<5.01	M	Ta	<0.007	M	Zr	0.32

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.062 g/mL

QA:KL Rev.050302DN

(over)

Inorganic Ventures, Inc.
195 Lehigh Avenue • Suite 4 • Lakewood, NJ 08701
Orders: 800-669-6799 • FAX (732) 901-1903
Technical Support: 800-569-6799

Paul R. Haines
Quality Assurance Manager

EXPIRES
1°2003

SPECertificate™ 010700

Certificate of Reference Material

Catalog Number: PLB9-2X/2Y/2T **Lot No.** 8-138B

Description: 1000 mg/L Boron

Matrix: H2O

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 998 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3107

The CRM is prepared gravimetrically using high purity Ammonium Tetraborate Lot# 08001E. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 mg/L

Method: Titration with Sodium Hydroxide using Phenolphthalein as indicator. Sodium Hydroxide standardized against Potassium Biphthalate NIST SRM # 84j

Instrumentation Analysis By ICP spectrometer: 998 mg/L

Uncertified Properties:

Density: 1.008 @ 26.7 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.07	Cu	<0.001	Pb	<0.002
As	<0.001	Fe	0.002	Re	<0.001
Ag	<0.001	Ga	<0.001	Rb	<0.001
Ba	<0.001	In	<0.001	Sr	<0.001
Be	<0.01	K	0.002	Sb	<0.001
Bi	<0.001	Li	<0.001	Sn	<0.001
Cd	<0.001	Mn	<0.001	Ti	<0.001
Co	<0.001	Mo	<0.001	Tl	<0.001
Ca	0.008	Mg	<0.001	V	<0.001
Cr	<0.004	Na	0.01	Zr	<0.001
		Ni	<0.001	Zn	<0.02

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: AUG [illegible] '02 Certifying Officer: N. Kocherlakota

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 8/8/02
DATE EXPIRED: 8/15/2003
DATE OPENED: 8/9/02
INORG: 3611 PO: E52035

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010701

Certificate of Reference Material

Catalog Number: PLLI2-2X/2Y **Lot No.** 9-102LI

Description: 1000 mg/L Lithium

Matrix: 2% HNO3

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1002 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3129a

The CRM is prepared gravimetrically using high purity Lithium Carbonate Lot# 03021A. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 mg/L

Method: Evaporate to dryness. Fume with Sulfuric Acid. Ignite and weigh as Li2SO4.

Instrumentation Analysis By ICP spectrometer: 1002 mg/L

Uncertified Properties:

Density: 1.014 @ 24.5 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.009	Cu	0.01	Pb	0.001
As	0.004	Fe	0.045	Re	0.002
Ag	<0.001	Ga	<0.001	Rb	<0.001
B	<0.004	In	<0.001	Sr	0.001
Ba	0.004	K	0.05	Sb	0.002
Be	0.002	Mn	<0.001	Sn	<0.001
Bi	<0.001	Mo	0.002	Ti	0.005
Ca	0.03	Mg	0.003	Tl	<0.001
Cr	<0.001	Na	0.02	V	<0.001
Cd	<0.001	Ni	<0.001	Zr	<0.001
Co	0.002			Zn	0.20

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: MAY '03 Certifying Officer: N. Kocherlakota

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 05/12/03
DATE EXPIRED: 05/15/2004
DATE OPENED: 05/12/03
INORG: 4065 PO: F52181

SPEXertificate™

010702

Certificate of Reference Material

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 05/12/03
DATE EXPIRED: 05/15/2004
DATE OPENED: 05/12/03
INORG: 42666 PO: F52181

Catalog Number: PLMO9-2X/2Y/2T **Lot No.** 9-49MO

Description: 1000 mg/L Molybdenum

Matrix: H2O

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1000 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3134

The CRM is prepared gravimetrically using high purity Ammonium Molybdate Lot# 03011C. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 999 mg/L

Method: Precipitation using 8-Hydroxyquinoline. Filter, dry, and weigh as MoO2(C9H6NO)2

Instrumentation Analysis By ICP spectrometer: 1001 mg/L

Uncertified Properties:

Density: 0.9987 @ 24.6 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.001	Cu	0.004	Pb	0.001
As	0.04	Fe	<0.01	Re	0.03
Ag	<0.001	Ga	<0.001	Rb	<0.001
B	<0.003	In	<0.001	Sr	<0.001
Ba	<0.001	K	0.02	Sb	<0.001
Be	<0.001	Li	<0.001	Sn	<0.001
Bi	<0.001	Mg	0.007	Ti	0.004
Ca	0.006	Mn	<0.001	Tl	<0.001
Cr	<0.005	Na	0.009	V	0.004
Cd	<0.05	Ni	<0.001	Zr	<0.001
Co	<0.001			Zn	<0.001

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: MAY '03 Certifying Officer: N. Kocherlakota

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Certificate of Reference Material

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 01/16/03
DATE EXPIRED: 01/15/2004
DATE OPENED: 01/23/03
INORG: 3927 PO: 552073

Catalog Number: PLP9-2X/2Y/2T **Lot No.** 9-29P
Description: 1000 mg/L Phosphorus
Matrix: H2O

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1003.5 mg/L
Uncertainty Associated with Measurement: +/- 3 mg/L
Certified Value is Traceable to: NIST SRM 3139a

The CRM is prepared gravimetrically using high purity (NH4)H2(PO4) Lot# A158. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1004 mg/L

Method: Precipitation using Magnesia mixture. Filter, ignite, and weigh as Mg2O2.

Instrumentation Analysis By ICP spectrometer: 1003 mg/L

Uncertified Properties:

Density: 0.9997 @ 22.9 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.05	Cu	<0.001	Pb	<0.001
As	<0.001	Fe	0.019	Rb	<0.001
Ag	<0.001	Ga	<0.001	Re	<0.001
B	<0.005	In	<0.001	Sn	0.006
Ba	<0.001	K	0.17	Sr	0.004
Be	<0.001	Li	0.004	Sb	0.01
Bi	<0.001	Mg	0.3	Ti	0.016
Ca	0.65	Mn	<0.001	Tl	<0.001
Cr	<0.001	Mo	<0.001	V	<0.001
Cd	<0.001	Na	0.5	Zr	<0.001
Co	<0.001	Ni	<0.001	Zn	6.7

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

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010704

Catalog Number: PLSI9-2X/2Y/2T **Lot No.** 9-66SI

Description: 1000 mg/L Silicon

Matrix: H2O / Tr HF

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1001.5 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3150

The CRM is prepared gravimetrically using high purity Ammonium HexafluorosiliLot# 02021D. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1003 mg/L

Method: Precipitation using Ammonium Molybdate and 8-Hydroxy Quinoline. Filter, dry, and weigh as (C9H7ON)4(H4)[Si(Mo12O40)]

Instrumentation Analysis By ICP spectrometer: 1000 mg/L

Uncertified Properties:

Density: 1.001 @ 24.5 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.002	Cu	0.01	Pb	<0.001
As	<0.001	Fe	0.006	Rb	<0.001
Ag	0.009	Ga	<0.001	Re	<0.001
B	<0.05	In	<0.001	Sn	<0.001
Ba	<0.001	K	0.014	Sr	<0.001
Be	<0.001	Li	<0.001	Sb	<0.001
Bi	<0.001	Mg	<0.001	Ti	<0.002
Ca	0.004	Mn	<0.001	Tl	<0.001
Cr	<0.002	Mo	<0.001	V	<0.001
Cd	<0.001	Na	0.006	Zr	0.008
Co	<0.001	Ni	<0.001	Zn	0.02

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

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Certificate of Reference Material

Catalog Number: PLTI9-2X/2Y/2T **Lot No.** 9-52TI

Description: 1000 mg/L Titanium

Matrix: H2O

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 995.5 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3162a

The CRM is prepared gravimetrically using high purity (NH4)2TiF6 . Lot# 02021E. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 996 mg/L

Method: Precipitation using Ammonium Hydroxide. Filter, ignite, and weigh as TiO2.

Instrumentation Analysis By ICP spectrometer: 995 mg/ L

Uncertified Properties:

Density: 1.000 @ 23.9 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.01	Cu	0.35	Pb	0.002
As	<0.001	Fe	0.01	Rb	<0.001
Ag	<0.001	Ga	<0.001	Re	<0.001
B	<0.005	In	<0.001	Sn	<0.001
Ba	<0.001	K	<0.05	Sr	<0.001
Be	<0.002	Li	<0.001	Sb	0.005
Bi	0.008	Mg	0.008	Tl	<0.001
Ca	0.095	Mn	0.001	V	<0.001
Cr	<0.001	Mo	<0.001	Zr	0.20
Cd	<0.001	Na	0.009	Zn	0.030
Co	<0.001	Ni	0.001		

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

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Certificate of Reference Material

Catalog Number: PLSR2-2X/2Y/2T **Lot No.** 9-166SR

Description: 1000 mg/L Strontium in 2% HNO3

Matrix: 2% HNO3

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1002.5 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3153a

The CRM is prepared gravimetrically using high purity Strontium Carbonate Lot# 02001B. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 mg/L

Method: EDTA titration using Methyl Thymol Blue as indicator. EDTA standardized against Pb(NO3)2 NIST SRM #928.

Instrumentation Analysis By ICP spectrometer: 1003 mg/L

Uncertified Properties:

Density: 1.010 @ 22.7 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.02	Cu	<0.001	Pb	<0.001
As	<0.001	Fe	0.001	Rb	<0.001
Ag	<0.002	Ga	<0.001	Re	<0.001
B	<0.003	In	<0.001	Si	0.043
Ba	0.008	K	0.10	Sb	<0.001
Be	<0.001	Li	0.007	Ti	<0.002
Bi	<0.001	Mg	<0.003	Tl	<0.001
Ca	0.014	Mn	<0.001	V	<0.001
Cr	0.001	Mo	<0.001	Zr	<0.001
Cd	<0.001	Na	0.01	Zn	0.04
Co	<0.001	Ni	<0.001		

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

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Certificate of Reference Material

Catalog Number: PLSN5-2X/2Y/2T **Lot No.** 9-81SN

Description: 1000 mg/L Tin

Matrix: 20% HCL

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1002.5 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3161

The CRM is prepared gravimetrically using high purity Tin Powder Lot# 10831R. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1006 mg/L

Method: Precipitation using ammonium hydroxide,filter,ignite and weigh as Sn02.

Instrumentation Analysis By ICP spectrometer: 999 mg/L

Uncertified Properties:

Density: 1.037 @ 25.0 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.008	Cu	<0.002	Pb	0.01
As	0.02	Fe	0.06	Rb	<0.001
Ag	0.02	Ga	<0.001	Re	<0.001
B	<0.02	In	0.10	Sr	<0.001
Ba	<0.001	K	<0.3	Sb	0.008
Be	<0.001	Li	<0.001	Ti	<0.003
Bi	<0.001	Mg	<0.001	Tl	<0.001
Ca	0.015	Mn	<0.001	V	0.3
Cr	<0.002	Mo	<0.001	Zr	<0.001
Cd	<0.001	Na	0.05	Zn	4
Co	0.009	Ni	0.06		

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: AUG -- '02 Certifying Officer: N. Kocherlakota

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Certificate of Reference Material

Catalog Number: PLBI4-2X/2Y **Lot No.** 9-36BI

Description: 1000 mg/L Bismuth

Matrix: 10% HNO3

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1001 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3106

The CRM is prepared gravimetrically using high purity Bismuth Metal Lot# 04941B. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1001 mg/L

Method: EDTA titration using Xylenol Orange as indicator. EDTA standardized against Pb(NO3)2 NIST SRM #928.

Instrumentation Analysis By ICP spectrometer: 1001 mg/L

Uncertified Properties:

Density: 1.052 @ 23.1 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.002	Cu	0.034	Pb	0.006
As	<0.001	Fe	0.001	Re	<0.001
Ag	0.002	Ga	<0.001	Rb	<0.001
B	<0.04	In	<0.001	Sr	<0.001
Ba	<0.001	K	0.001	Sb	<0.001
Be	<0.001	Li	<0.001	Sn	<0.001
Cd	<0.001	Mn	<0.001	Ti	<0.001
Co	<0.001	Mo	<0.001	Tl	<0.001
Ca	0.006	Mg	<0.001	V	<0.002
Cr	<0.005	Na	0.005	Zr	<0.001
		Ni	<0.001	Zn	0.02

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

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Certificate of Reference Material

Catalog Number: PLLA2-2X/2Y **Lot No.** 10-17LA

Description: 1000 mg/L Lanthanum

Matrix: 2% HNO3

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 996.5 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3127a

The CRM is prepared gravimetrically using high purity Lanthanum Oxide Lot# 06981D. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 mg/L

Method: EDTA titration using Methyl Thymol Blue as indicator. EDTA standardized against Pb(NO3)2 NIST SRM #928.

Instrumentation Analysis By ICP spectrometer: 995 mg/L

Uncertified Properties:

Density: 1.010 @ 23.8 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Ce	0.009	Lu	<0.001	Tm	<0.001
Ca	0.05	Mn	<0.001	Ti	<0.001
Dy	<0.001	Mo	<0.001	Tb	<0.001
Er	<0.001	Nd	<0.001	Ta	<0.001
Eu	<0.001	Ni	<0.001	Tl	<0.001
Fe	0.006	Na	0.006	V	<0.001
Gd	<0.2	Pr	<0.001	W	<0.001
Ga	<0.001	Rb	<0.001	Y	<0.001
Hf	<0.001	Sc	<0.003	Yb	<0.001
Ho	<0.001	Sm	<0.001	Zr	<0.001
In	<0.001	Th	<0.001		

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others
This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

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Catalog Number: PLY2-2X/2Y/2T **Lot No.** 9-152Y
Description: 1,000 mg/L Yttrium
Matrix: 2% HNO3

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1001.5 mg/L
Uncertainty Associated with Measurement: +/- 3 mg/L
Certified Value is Traceable to: NIST SRM 3167a.

The CRM is prepared gravimetrically using high purity Yttrium Oxide Lot# 08001A. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1002 mg/L

Method: EDTA titration using Methyl Thymol Blue as indicator. EDTA standardized against Pb(NO3)2 NIST SRM #928.

Instrumentation Analysis By ICP spectrometer: 1001 mg/L

Uncertified Properties:

Density: 1.010 @ 24.8 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Ce	<0.001	La	<0.001	Tb	<0.001
Ca	0.007	Lu	<0.001	Tm	<0.001
Dy	<0.001	Mn	<0.001	Tl	<0.001
Er	<0.001	Mo	<0.001	Th	<0.001
Eu	<0.001	Nd	<0.001	Ta	<0.001
Fe	0.003	Ni	<0.001	Ti	<0.001
Gd	<0.001	Na	0.005	V	<0.001
Ga	<0.001	Pr	<0.001	W	<0.001
Hf	<0.001	Rb	<0.001	Yb	<0.001
Ho	<0.001	Sc	<0.001	Zr	0.003
In	<0.001	Sm	<0.001		

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

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Catalog Number: PLPD3-2X/2Y **Lot No.** 9-74PD

Description: 1000 mg/L Palladium

Matrix: 10% HCl

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 995 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3138

The CRM is prepared gravimetrically using high purity Palladium Powder Lot# 07991E. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 990 mg/L

Method: Precipitation using dimethyl glyoxime,filter,dry and weigh as Pd(C4H702N2)2.

Instrumentation Analysis By ICP spectrometer: 1000 mg/L

Uncertified Properties:

Density: 1.025 @ 26.3 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	<0.004	Cr	<0.009	Pt	<0.004
Au	0.03	Fe	0.02	Re	<0.001
Ag	0.007	Ga	<0.001	Rh	0.002
B	<0.05	Ir	<0.001	Rb	<0.001
Be	<0.002	In	<0.001	Ru	<0.001
Bi	<0.001	Mg	<0.005	Sn	0.08
Ca	0.02	Mn	<0.001	Te	<0.001
Cd	<0.001	Na	<0.03	Ti	<0.001
Co	<0.001	Ni	0.004	W	<0.001
Cu	<0.006	Pb	<0.04	Zr	<0.001
				Zn	0.16

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

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Certificate of Reference Material

Catalog Number: PLS9-2X/2Y/2T **Lot No.** 9-64S

Description: 1000 mg/L Sulfur

Matrix: H2O

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1000.5 +/- 3 mg/L

Uncertainty Associated with Measurement:

Certified Value is Traceable to: NIST SRM 3154

The CRM is prepared gravimetrically using high purity AMMONIUM SULFATE Lot# 0891NK. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1001 mg/L

Method: PRECIPITATION USING BARIUM CHLORIDE,FILTER,IGNITE AND WEIGH AS BaS04.

Instrumentation Analysis By ICP spectrometer: 1000 mg/L

Uncertified Properties:

Density: 1.007 @ 23.6 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Ag	<0.001	Cu	<0.01	Pb	<0.1
Al	0.002	Fe	0.012	Rb	<0.001
As	<0.001	Ga	<0.001	Re	<0.001
Ba	<0.001	In	<0.001	Sn	<0.001
Be	<0.001	K	<0.08	Sr	<0.001
B	<0.006	Li	<0.001	Sb	<0.001
Bi	<0.001	Mg	0.02	Ti	<0.001
Cr	0.002	Mn	<0.001	Tl	<0.001
Co	<0.001	Mo	<0.001	V	<0.001
Cd	<0.001	Na	0.02	Zr	<0.001
Ca	0.015	Ni	<0.001	Zn	0.38

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: 11 -- '02 Certifying Officer: N. Kocherlakota

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DATE OPENED: 9/4/02
INORG: 3684 PO: F52048

Catalog Number: PLTH2-2X/2Y **Lot No.** 9-95TH

Description: 1000 mg/Lthorium

Matrix: 2% HNO3

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1000 mg/L +/- 3 mg/L

Uncertainty Associated with Measurement:

Certified Value is Traceable to: NIST SRM 3159

The CRM is prepared gravimetrically using high purity Th(NO3)4-4H2O Lot# 01851R. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1001 mg/L

Method: EDTA titration using Xylenol Orange as indicator. EDTA standardized against Pb(NO3)2 NIST SRM #928.

Instrumentation Analysis By ICP spectrometer: 999 mg/L

Uncertified Properties:

Density: 1.043 @ 25.2 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Ce	0.008	La	0.002	Tb	<0.001
Ca	0.01	Lu	<0.001	Tm	<0.001
Dy	<0.001	Mn	<0.001	Ti	<0.002
Er	<0.001	Mo	<0.001	Ta	<0.001
Eu	<0.001	Nd	0.002	Tl	<0.001
Fe	<0.01	Ni	<0.001	V	<0.001
Gd	<0.001	Na	0.03	W	<0.001
Ga	<0.001	Pr	<0.001	Y	0.001
Hf	<0.001	Rb	<0.001	Yb	<0.001
Ho	<0.001	Sc	0.002	Zr	0.002
In	<0.001	Sm	<0.001		

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: SEP -- '02 Certifying Officer: N. Kocherlakota

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Catalog Number: PLU2-2X/2Y **Lot No.** 8-123U

Description: 1000 mg/L Uranium

Matrix: 2% HNO3

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 1000.5 mg/L +/- 3 mg/L

Traceable to: NIST SRM 3164

The CRM is prepared gravimetrically using high purity Uranium Oxide Lot# 04001D. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 1001 mg/L

Method: Evaporate to dryness,ignite and weigh as U3 O8.

Instrumentation Analysis By ICP spectrometer: 1000 mg/L

Uncertified Properties:

Density: 1.018 @ 23.5 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.05	Cu	0.02	Pb	<0.007
As	0.05	Fe	0.10	Rb	<0.001
Ag	<0.005	Ga	<0.001	Re	<0.001
B	<0.004	In	<0.001	Sn	<0.001
Ba	0.003	K	0.06	Sr	0.004
Be	<0.001	Li	<0.001	Sb	0.003
Bi	0.002	Mg	0.003	Ti	<0.001
Ca	.12	Mn	0.003	Tl	<0.001
Cr	<0.003	Mo	0.005	V	0.005
Cd	<0.001	Na	0.1	Zr	<0.001
Co	<0.001	Ni	<0.002	Zn	0.02

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: JUN -- '02 Certifying Officer: N. Kocherlakota

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INORG: 3096 PO: FS2039

SPECertificate™

010715

Certificate of Reference Material

Catalog Number: PLW9-2X/2Y **Lot No.** 8-135W

Description: 1000 mg/L Tungsten

Matrix: H2O

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 999.5 mg/L +/- 3 mg/L

Traceable to: NIST SRM 3163

The CRM is prepared gravimetrically using high purity Ammonium Tungstate Lot# 02001H. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 997 mg/L

Method: Fume with Sulfuric Acid to dryness, ignite and weigh as WO3.

Instrumentation Analysis By ICP spectrometer: 1002 mg/L

Uncertified Properties:

Density: 1.006 @ 25.2 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.005	Cu	<0.001	Pb	<0.008
As	0.006	Fe	0.003	Rb	<0.001
Ag	<0.004	Ga	<0.001	Re	0.009
B	<0.004	In	<0.001	Sn	0.001
Ba	<0.001	K	0.07	Sr	<0.001
Be	<0.001	Li	0.04	Sb	0.002
Bi	<0.001	Mg	0.006	Ti	<0.002
Ca	0.008	Mn	<0.001	Tl	<0.001
Cr	<0.005	Mo	0.005	V	<0.001
Cd	<0.001	Na	0.03	Zr	<0.001
Co	<0.001	Ni	<0.001	Zn	<0.2

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: AUG -- '02 Certifying Officer: N. Kocherlakota

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SPEXertificate™ 010716

Certificate of Reference Material

Catalog Number: PLZR2-2X/2Y/2T **Lot No.** 9-07ZR

Description: 1000 mg/L Zirconium

Matrix: 2% HNO3

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 997 mg/L

Uncertainty Associated with Measurement: +/- 3 mg/L

Certified Value is Traceable to: NIST SRM 3169

The CRM is prepared gravimetrically using high purity Zirconyl Nitrate Lot# 11011C. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 996 mg/L

Method: Fume with Sulfuric Acid to dryness,ignite and weigh as ZrO2.

Instrumentation Analysis By ICP spectrometer: 998 mg/L

Uncertified Properties:

Density: 1.009 @ 25.0 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.02	Cu	<0.001	Pb	<0.001
As	<0.002	Fe	0.039	Rb	<0.001
Ag	0.2	Ga	<0.001	Re	<0.001
B	<0.05	In	<0.001	Sn	<0.001
Ba	<0.001	K	<0.08	Sr	<0.001
Be	<0.001	Li	<0.005	Sb	<0.001
Bi	<0.001	Mg	<0.002	Ti	<0.002
Ca	0.04	Mn	<0.001	Tl	<0.001
Cr	<0.005	Mo	<0.001	V	<0.001
Cd	0.004	Na	<0.03	Zn	0.005
Co	<0.001	Ni	<0.001		

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: AUG -- '02 Certifying Officer: N. Kocherlakota

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SPEXertificate™ 010717

Certificate of Reference Material

Catalog Number: PLNA2-3X/3Y **Lot No.** T8-73NA

Description: 10,000 mg/L Sodium

Matrix: 5% HNO3

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevent to the certified properties listed below.

Certified Value: 10,036.5 mg/L

Uncertainty Associated with Measurement: +/- 30 mg/L

Certified Value is Traceable to: NIST SRM 3152a

The CRM is prepared gravimetrically using high purity Sodium Carbonate Lot# 02021A. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 10,039 mg/L

Method: Evaporate to dryness. Fume with Sulfuric Acid. Ignite and weigh as Na2SO4.

Instrumentation Analysis By ICP spectrometer: 10,034 mg/ L

Uncertified Properties:

Density: 1.048 @ 23.9 Degrees Celsius

Trace Metallic Impurities in the Actual Solution via ICP / ICPMS Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Al	0.02	Cu	<0.002	Pb	<0.001
As	<0.08	Fe	0.03	Re	<0.001
Ag	<0.02	Ga	<0.001	Rb	<0.001
B	<0.1	In	<0.001	Sr	<0.001
Ba	0.008	K	1.36	Sb	<0.001
Be	<0.01	Li	<0.002	Sn	<0.001
Bi	<0.001	Mg	0.60	Ti	<0.03
Ca	0.60	Mn	<0.02	Tl	<0.001
Cr	0.002	Mo	<0.001	V	<0.001
Cd	<0.01	Ni	<0.003	Zr	<0.001
Co	<0.001			Zn	<0.05

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32857 and others. This CRM is guaranteed stable to +/-0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: FEB -- '03 Certifying Officer: N. Kocherlakota

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DATE OPENED: 11/21/02
INORG: 3723 PO: F52064

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010718

Certificate of Reference Material

Catalog Number: ICV-2A **Lot No.:** 22-12AS
Description: **Initial Calibration Verification Standard II**
Matrix: 5% Nitric Acid

This **ASSURANCE** ®certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentration.

Refer to side 2 for details of measurement uncertainties.

Instrumental Analysis by ICP Spectrometer:

Element	Labeled (mg/L)	Measured (mg/L)	NIST SRM	Element	Labeled (mg/L)	Measured (mg/L)	NIST SRM
Ca	2,000	2,005.40	3109a	Ni	500	500.58	3136
K	2,000	1,997.89	3141a	V	500	504.23	3165
Mg	2,000	1,992.26	3131a	Cr	200	203.21	3112a
Na	2,000	1,992.99	3152a	Cu	200	199.75	3114
Al	1,000	1,005.90	3101a	Ag	100	100.46	3151
Ba	1,000	1,001.51	3104a	Be	100	100.04	3105a
Fe	1,000	1,003.17	3126a	Mn	100	100.64	3132
Co	500	505.10	3113	Zn	100	100.52	3168a

Spex Reference Multi: Lot #4-63BD, 14-125AS

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% on the average of all the certified concentrations with no single component exceeding +/- 2%. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: NOV -- '02 Certifying Officer: N. Kocherlakota

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DATE EXPIRED: 11/30/03 DK
DATE OPENED: 11/19/02
INORG: 3224 PO: ES2064

SPECertificate™ 010719

Certificate of Reference Material

Catalog Number: PLSB7-2X/2Y/2T **Lot No.:** 8-175SB-X/Y/T
Description: 1000 mg/L Antimony
Matrix: Water/0.6% Tartaric Acid/tr HNO_3

This **ASSURANCE** ® certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: Antimony(Sb): 999 mg/L ± 3 mg/L
Traceable to: NIST SRM 3102a

The CRM is prepared gravimetrically using high purity Antimony Metal (Sb) Lot#R1198A. The certified value listed is the average of values obtained by classical wet assay and ICP spectrometer analysis.
Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 mg/L
Method: Gravimetric analysis by evaporating to dryness, fuming with Nitric Acid, igniting and weighing as Sb_2O_4.
Instrumental Analysis by ICP spectrometer: 1000 mg/L
Uncertified Properties:
Density: 1.007 at 24.0°C

Trace Metallic Impurities in the Actual Solution via ICP Analysis:

Element	mg/L	Element	mg/L	Element	mg/L
Ag	<0.001	Cu	<0.001	Pb	<0.001
Al	0.030	Fe	0.013	Rb	<0.001
As	0.001	Ga	<0.001	Re	<0.001
B	<0.001	In	<0.001	Sn	<0.001
Ba	<0.001	K	0.030	Sr	<0.001
Be	<0.001	Li	<0.001	Ti	0.001
Bi	<0.001	Mg	0.003	Tl	<0.001
Ca	0.012	Mn	<0.001	V	<0.001
Cd	<0.001	Mo	<0.001	Zn	<0.010
Co	<0.001	Na	0.005	Zr	<0.001
Cr	<0.001	Ni	<0.001		

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable to +/- 0.5% of the certified concentration inclusive of uncertainty of measurements and other effects, such as transpiration losses, for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: NOV -- '02 Certifying Officer: N. Kocherlakota

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DATE OPENED: 11/19/02
INORG: 3775 PO: F50964

010720

SPECertificate™

Certificate of Reference Material

Catalog Number: ICV-2C **Lot No.:** 22-13AS
Description: **Initial Calibration Verification Standard II**
Matrix: 5% Nitric Acid

This **ASSURANCE** ®certified reference material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICPOES, DCP, AA, ICPMS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentration.

Refer to side 2 for details of measurement uncertainties.

Instrumental Analysis by ICP Spectrometer:

Element	Labeled (mg/L)	Measured (mg/L)	NIST SRM
As	500	497.85	3103a
Pb	500	495.41	3128
Se	500	501.98	3149
TL	500	501.89	3158
Cd	100	99.77	3108

Spex Reference Multi: Lot #4-51BDREF, 15-39AS, 11-173AS

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% on the average of all the certified concentrations with no single element exceeding +/- 2%. This includes uncertainty of measurements and other effects, such as transpiration losses. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and transported and stored under laboratory conditions.

Date of Certification: NOV -- '02 Certifying Officer: N. Kocherlakota

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Certificate of Analysis

010721

CUSTOM-GRADE SOLUTION 10,000 µg/mL Aluminum in 5% HNO_3 (abs)

Catalog Number: CGAL10-1and CGAL10-5

Lot Number: **S-AL03136 (Revised 06/10/02)**

Starting Material:	Aluminum Metal
Starting Material Purity:	99.999%
Starting Material Lot No:	607116

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DATE EXPIRED: 09/01/2003
DATE OPENED: 08/26/02
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CERTIFIED CONCENTRATION: 10,041 ± 25 µg/mL

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

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ Uncertainty $(\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 10,041 ± 25 µg/mL
Method: EDTA Titration vs NIST SRM 928 Lead Nitrate.

Instrument Analysis: 10,017 ± 102 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3101a.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom Grade solutions tested for trace metallic impurities by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

s	Al		M	Dy	<0.028	M	Li	<0.047	M	Pr	<0.0014	M	Te	<0.14
M	Sb	<0.0024	M	Er	<0.024	M	Lu	<0.0019	M	Re	<0.0047	M	Tb	<0.0014
M	As	<0.047	M	Eu	<0.014	O	Mg	0.0050	M	Rh	<0.0047	M	Tl	<0.0047
M	Ba	<0.047	M	Gd	<0.0047	M	Mn	<0.019	M	Rb	<0.0047	M	Th	<0.0047
O	Be	<0.00017	M	Ga	<0.0047	O	Hg	<0.0070	M	Ru	<0.0094	M	Tm	<0.0019
M	Bi	<0.0019	M	Ge	<0.028	M	Mo	<0.0094	M	Sm	<0.0047	M	Sn	<0.024
O	B	0.012	M	Au	<0.014	M	Nd	<0.0094	M	Sc	<0.047	M	Ti	<0.24
M	Cd	<0.014	M	Hf	<0.0094	O	Ni	<0.0060	M	Se	<0.036	M	W	<0.047
O	Ca	0.0084	M	Ho	<0.0024	M	Nb	<0.0024	O	Si	0.052	M	U	<0.0094
M	Ce	<0.024	O	In	<0.030	n	Os		M	Ag	<0.0094	M	V	<0.0094
M	Cs	<0.0014	M	Ir	<0.024	M	Pd	<0.024	O	Na	<0.10	M	Yb	<0.0047
O	Cr	0.0026	O	Fe	0.018	O	P	<0.030	M	Sr	<0.0024	M	Y	<0.19
M	Co	<0.014	M	La	<0.0024	M	Pt	<0.0094	O	S	0.086	M	Zn	<0.094
M	Cu	<0.028	M	Pb	<0.014	O	K	<0.0060	M	Ta	<0.033	M	Zr	<0.024

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.061 g/mL

QA:KL Rev.081002DN

(over)

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Paul R. Haines
Quality Assurance Manager

EXPIRES 1 SEP 2003

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certificate of analysis

010722

1.0 **Inorganic Ventures / IV Labs is an ISO Guide 34-2000 Certified Reference Material (CRM) Manufacturer: Certificate #883-02.** *The certificate is designed and the certified value(s) and uncertainty(ies) are determined in accordance with ISO Guide 31-2000 (Reference Materials - Contents of certificates and label(s), ISO Guide 34-2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35-1989 "Certification of Reference Materials - General and Statisical Principles."*

2.0 **DESCRIPTION OF CRM** Custom-Grade **10000 µg/mL Calcium in 1.4% (abs) HNO_3**

Catalog Number:	CGCA10-1 AND CGCA10-5
Lot Number:	**T-CA03010**
Starting Material:	CaO
Starting Material Purity (%):	99.9981
Starting Material Lot No	C27L01
Matrix:	1.4% (abs) HNO_3

INORGANIC LABS/RADCHEM LABS Pg. 1 of 2
DATE RECEIVED: 01/09/03
DATE EXPIRED: 02/01/2004
DATE OPENED: 01/10/03
INORG: 3900 PO: F52071

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 10,007 ± 22 µg/mL

Certified Density: 1.037 g/mL (measured at 22° C)

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

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

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

($\bar{x}$) = mean
x_i = individual results
n = number of measurements
$\sum s$ = The summation of all significant estimated errors. (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

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

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

This IV product is Traceable to NIST via direct comparison to NIST SRMs. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors.

4.1 **Assay Method #1** **10,034 ± 25 µg/mL**
ICP Assay NIST SRM 3109a Lot Number: 000622

Assay Method #2 **10,007 ± 22 µg/mL**
EDTA NIST SRM 928 Lot Number: 880710

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

010723

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

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 40.078; +2; 6; $Ca(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl and HNO_3. Avoid H_2SO_4, HF, H_3PO_4 and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO_3 / LDPE container.

Ca Containing Samples (Preparation and Solution) - Metal (best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt* followed by HCl dissolution); Organic Matrices (dry ash and dissolution in dilute HCl. Do not heat when dissolving to avoid precipitation of SiO_2) .The oxide, hydroxide, carbonate, phosphate, and fluoride of calcium are soluble in % levels of HCl or HNO_3. The sulfates (gypsum, anhydrite, etc.), certain silicates and complex compounds require fusion with Na_2CO_3 followed by HCl / water dissolution. Contamination is a very real problem when analyzing for trace levels.

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

Technique/Line		Estimated D.L.	Order	Type	Interferences (underlined indicates severe at= concs.)
ICP-OES	393.366 nm	0.0002 / 0.00004 µg/mL	1	ion	U, Ce
ICP-OES	396.847 nm	0.0005 / 0.00006 µg/mL	1	ion	Th
ICP-OES	422.673 nm	0.01 / 0.001 µg/mL	1	atom	Ge
ICP-MS	44 amu	1200 ppt	n/a	M+	$^{16}O_2$, ^{12}C, $^{28}Si^{16}O$, $^{88}Sr^{++}$

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

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001:2000 Quality Management System Registration - QMI Certificate Number 010105
Recognized by:
Registrar Accreditation Board (ANSI-RAB)
Standards Council of Canada (SCC)
Dutch Council for Accreditation (RVA)
Entidad Mexicana de Acreditacion, a.c.(EMA)
Members of IQ Net International Certification Network:
Argentina (IRAM), Australia (QAS), Austria (ÖQS), Belgium (Avinter) , Brazil (FCAV), Canada (QMI), Hong Kong (HKQAA), Columbia (ICONTEC), Czech Republic (CQS), Denmark (DS), Finland (SFS), France (AFAQ), Germany (DQS), Greece (ELOT), Hungary (MSZT), Ireland (NSAI), Israel (SII), Italy (CISQ), Japan (JQA), Korea (KSA-QA), Netherlands (KEMA), Norway (NCS), Poland(PCBC), Portugal (APCER), Singapore (PSB), Slovenia (SIQ), Spain (AENOR), Switzerland (SQS)

10.2 ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 - 2000 "General Requirements for the Competence of Reference Material Producers" - Reference Materials Production - Accredited A2LA Certificate Number 883.02
A2LA Mutual Recognition Agreement Partners:
Australia (NATA), Austria (BmwA), Belgium (BELTEST) (BKO-OBE), Canada (SCC), Chinese Taipei (CNLA), Czech Republic (NAO), Denmark (DANAK), Finland (FINAS), France (COFRAC), Germany (DAR), Hong Kong (HKAS, Ireland (NAB), Italy (SIT) (SINAL), Japan (JAB) (JNLA), Republic of Korea (KOLAS), The Netherlands (RvA), New Zealand (IANZ), Norway (NA), Portugal (IPQ), Singapore (SAC-SINGLAS), Spain (ENAC), Sweden (SWEDAC), Switzerland (SAS), United Kingdom (UKAS) and United States (NVLAP) (ICBO ES)

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

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

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

INORGANIC LABS/RADCHEM LABS Pg. 2 of 2
DATE RECEIVED: 01/09/03
DATE EXPIRED: 02/01/2004
DATE OPENED: 01/10/03
INORG: 3900 PO: F52071

inorganic ventures / iv labs

195 lehigh avenue, suite 4, lakewood, nj 08701 usa
phone: 800-669-6799 • 732-901-1900 • fax: 732-901-1903
e-mail: ivsales@ivstandards.com • website: www.ivstandards.com

010724

certificate of analysis

1.0 **Inorganic Ventures / IV Labs is an ISO Guide 34-2000 Certified Reference Material (CRM) Manufacturer: Certificate #883-02.** *The certificate is designed and the certified value(s) and uncertainty(ies) are determined in accordance with ISO Guide 31-2000 (Reference Materials - Contents of certificates and label(s), ISO Guide 34-2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35-1989 "Certification of Reference Materials - General and Statisical Principles."*

2.0 **DESCRIPTION OF CRM** Custom-Grade **10000 µg/mL Iron in 3.5% (abs) HNO_3**

Catalog Number:	CGFE10-1 and CGFE10-5
Lot Number:	**T-FE03028**
Starting Material:	Fe metal
Starting Material Purity (%):	99.9992
Starting Material Lot No	23024
Matrix:	3.5% (abs) HNO_3

INORGANIC LABS/RADCHEM LABS Pg. 1 of 2
DATE RECEIVED: 2/28/03
DATE EXPIRED: 3/01/2004
DATE OPENED: 2/28/03
INORG: 3963 PO: E52064

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 9920 ± 22 µg/mL

Certified Density: 1.037 g/mL (measured at 22° C)

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

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

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

($\bar{x}$) = mean
x_i = individual results
n = number of measurements
$\sum S_i$ = The summation of all significant estimated errors. (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

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

- "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
- This IV product is Traceable to NIST via direct comparison to NIST SRMs. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors.

4.1 **Assay Method #1** **9920 ± 22 µg/mL**
ICP Assay NIST SRM 3126a Lot Number: 000606

Assay Method #2 **9962 ± 41 µg/mL**
EDTA NIST SRM 928 Lot Number: 880710

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 55.847; +3; 6; $Fe(H_2O)_6^{3+}$

Chemical Compatibility - Stable in HCl, HNO_3, H_2SO_4, HF and H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Fe Containing Samples (Preparation and Solution) - Metal (Soluble in HCl); Oxides (If the oxide has been at a high temperature then Na_2CO_3 fusion in Pt^0 followed by HCl dissolution otherwise dissolve in dilute HCl); Ores (See Oxides above using only the fusion approach).

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

Technique/Line		Estimated D.L.	Order	Type	Interferences (underlined indicates severe at ≈ concs.)
ICP-OES	238.204 nm	0.005 / 0.001 µg/mL	1	ion	Ru, Co
ICP-OES	239.562 nm	0.005 / 0.001 µg/mL	1	ion	Co, W, Cr
ICP-OES	259.940 nm	0.006 / 0.001 µg/mL	1	ion	Hf, Nb
ICP-MS	56 amu	970 ppt	n/a	M^+	$^{40}Ar^{15}N^1H$, $^{40}Ar^{16}O$, $^{36}Ar^{17}O^1H$, $^{38}Ar^{18}O$, $^{37}Cl^{18}O^1H$, $^{40}Ca^{16}O$

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

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001:2000 Quality Management System Registration - QMI Certificate Number 010105
Recognized by:
Registrar Accreditation Board (ANSI-RAB)
Standards Council of Canada (SCC)
Dutch Council for Accreditation (RVA)
Entidad Mexicana de Acreditacion, a.c.(EMA)
Members of IQ Net International Certification Network:
Argentina (IRAM), Australia (QAS), Austria (ÖQS), Belgium (Avinter) , Brazil (FCAV), Canada (QMI), Hong Kong (HKQAA), Columbia (ICONTEC), Czech Republic (CQS), Denmark (DS), Finland (SFS), France (AFAQ), Germany (DQS), Greece (ELOT), Hungary (MSZT), Ireland (NSAI), Israel (SII), Italy (CISQ), Japan (JQA), Korea (KSA-QA), Netherlands (KEMA), Norway (NCS), Poland(PCBC), Portugal (APCER), Singapore (PSB), Slovenia (SIQ), Spain (AENOR), Switzerland (SQS)

10.2 ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 - 2000 "General Requirements for the Competence of Reference Material Producers" - Reference Materials Production - Accredited A2LA Certificate Number 883.02
A2LA Mutual Recognition Agreement Partners:
Australia (NATA), Austria (BmwA), Belgium (BELTEST) (BKO-OBE), Canada (SCC), Chinese Taipei (CNLA), Czech Republic (NAO), Denmark (DANAK), Finland (FINAS), France (COFRAC), Germany (DAR), Hong Kong (HKAS, Ireland (NAB), Italy (SIT) (SINAL), Japan (JAB) (JNLA), Republic of Korea (KOLAS), The Netherlands (RvA), New Zealand (IANZ), Norway (NA), Portugal (IPQ), Singapore (SAC-SINGLAS), Spain (ENAC), Sweden (SWEDAC), Switzerland (SAS), United Kingdom (UKAS) and United States (NVLAP) (ICBO ES)

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

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

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

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 2/28/03
DATE EXPIRED: 3/01/2004
DATE OPENED: 2/28/03
INORG: 3963 PO: F52064

Certificate of Analysis

CUSTOM-GRADE SOLUTION 10,000 µg/mL Potassium in 1.4% HNO_3 (abs)

010726

Catalog Number: CGK10-1and CGK10-5

Lot Number: **T-K02102**

Starting Material:	Potassium Nitrate
Starting Material Purity:	99.996%
Starting Material Lot No:	K18J19

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 10/22/03
DATE EXPIRED: 11/01/2003
DATE OPENED: 10/23/03
INORG: 3738 PO: F52057

CERTIFIED CONCENTRATION: 9999 ± 7 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 9999 ± 7 µg/mL
Method: Gravimetric as the Sulfate vs NIST weights #822/254143-94.

Instrument Analysis: 10,002 ± 27 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3141a.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	<0.00090	M	Dy	<0.0060	O	Li	<0.000030	M	Pr	<0.00030	M	Te	<0.030
M	Sb	<0.00050	M	Er	<0.0050	M	Lu	<0.00040	M	Re	<0.0010	M	Tb	<0.00030
M	As	<0.010	M	Eu	<0.0030	O	Mg	0.00015	M	Rh	<0.0010	M	Tl	<0.0010
M	Ba	<0.010	M	Gd	<0.0010	O	Mn	<0.000030	M	Rb	0.50	M	Th	<0.0010
O	Be	<0.00020	M	Ga	<0.0010	O	Hg	<0.015	M	Ru	<0.0020	M	Tm	<0.00040
M	Bi	<0.00040	O	Ge	<0.0015	M	Mo	<0.0020	M	Sm	<0.0010	M	Sn	<0.0050
O	B	<0.00060	O	Au	<0.0030	M	Nd	<0.0020	O	Sc	<0.000020	O	Ti	<0.00070
M	Cd	<0.0030	M	Hf	<0.0020	O	Ni	<0.0023	O	Se	<0.05	M	W	<0.0010
O	Ca	0.0016	M	Ho	<0.00050	M	Nb	<0.00050	O	Si	0.0025	M	U	<0.0020
M	Ce	<0.0050	M	In	<0.0010	n	Os		M	Ag	<0.0020	O	V	<0.00090
M	Cs	<0.00030	M	Ir	<0.0050	M	Pd	<0.0050	O	Na	0.61	M	Yb	<0.0010
M	Cr	<0.0050	O	Fe	0.0024	O	P	<0.0025	M	Sr	<0.00050	M	Y	<0.040
M	Co	<0.0030	M	La	<0.00050	M	Pt	<0.0020	O	S	0.021	O	Zn	0.0021
M	Cu	<0.0060	M	Pb	<0.0030	s	K		M	Ta	<0.0070	M	Zr	<0.0050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.023 g/mL

(over)

QA:KL Rev.032702DN

Quality Assurance Manager

Inorganic Ventures, Inc.
195 Lehigh Avenue • Suite 4 • Lakewood, NJ 08701
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Technical Support: 800-569-6799

EXPIRES 1/2003

Certificate of Analysis

010727

CUSTOM-GRADE SOLUTION

10,000 µg/mL Magnesium in 1.4% HNO_3 (abs)

Catalog Number: CGMG10-1and CGMG10-5

Lot Number: **T-MG02151**

Starting Material:	Magnesium Metal	7/12/02
Starting Material Purity:	99.999%	8/01/2003
Starting Material Lot No:	91191	7/15/02
		3564 E51959

CERTIFIED CONCENTRATION: 10,016 ± 22 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 10,016 ± 22 µg/mL
Method: EDTA Titration vs NIST SRM 928 Lead Nitrate.

Instrument Analysis: 10,016 ± 52 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3131a.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.** An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	0.050	M	Dy	<0.025	O	Li	0.0063	M	Pr	<0.0013	M	Te	<0.13
M	Sb	0.0031	M	Er	<0.021	M	Lu	<0.0017	M	Re	<0.0041	M	Tb	<0.0013
M	As	<0.041	M	Eu	<0.013	s	Mg		M	Rh	<0.0041	M	Tl	<0.0041
M	Ba	<0.041	M	Gd	<0.0041	M	Mn	<0.017	M	Rb	<0.0041	M	Th	<0.0041
O	Be	<0.00017	M	Ga	<0.0041	O	Hg	<0.0090	M	Ru	<0.0082	M	Tm	<0.0017
M	Bi	<0.0017	M	Ge	<0.025	M	Mo	<0.0082	M	Sm	<0.0041	M	Sn	<0.021
O	B	0.013	M	Au	<0.013	M	Nd	<0.0082	M	Sc	<0.041	O	Ti	0.17
M	Cd	<0.013	M	Hf	<0.0082	O	Ni	0.015	M	Se	<0.033	M	W	<0.041
O	Ca	0.050	M	Ho	<0.0021	M	Nb	<0.0021	O	Si	0.040	M	U	<0.0082
M	Ce	<0.021	M	In	<0.041	n	Os		M	Ag	<0.0082	M	V	<0.0082
M	Cs	<0.0013	M	Ir	<0.021	M	Pd	<0.021	O	Na	0.025	M	Yb	<0.0041
O	Cr	0.027	O	Fe	0.069	O	P	<0.016	M	Sr	<0.0021	M	Y	<0.17
M	Co	<0.013	M	La	<0.0021	M	Pt	<0.0082	n	S		O	Zn	0.0065
O	Cu	0.0088	O	Pb	0.034	O	K	<0.050	M	Ta	<0.029	M	Zr	<0.021

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.050 g/mL **(over)**

QA:KSL Rev.022202DN

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Technical Support: 800-569-6799

Paul R. Haines
Quality Assurance Manager

EXPIRES 1 Oct 2003

Certificate of Analysis

010728

CUSTOM-GRADE SOLUTION 10,000 µg/mL Sodium in 1.4% HNO_3 (abs)

Catalog Number: CGNA10-1and CGNA10-5

Lot Number: **T-NA02144**

Starting Material:	Na_2CO_3	7/12/02
Starting Material Purity:	99.999%	8/01/2003
Starting Material Lot No:	41355	7/15/02
		3565 E51959

CERTIFIED CONCENTRATION: 10,029 ± 8 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 10,029 ± 8 µg/mL
Method: Gravimetric as the Sulfate vs NIST weights #822/254143-94.

Instrument Analysis: 10,035 ± 40 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3152a.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**.
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	<0.00090	M	Dy	<0.026	O	Li	<0.000030	M	Pr	<0.0013	M	Te	<0.13
M	Sb	<0.0022	M	Er	<0.022	M	Lu	<0.0018	M	Re	<0.0044	M	Tb	<0.0013
M	As	<0.044	M	Eu	<0.013	O	Mg	0.00019	M	Rh	<0.0044	M	Tl	<0.0044
M	Ba	<0.044	M	Gd	<0.0044	O	Mn	<0.000030	M	Rb	<0.0044	M	Th	<0.0044
O	Be	<0.00020	M	Ga	<0.0044	O	Hg	<0.015	M	Ru	<0.0087	M	Tm	<0.0018
M	Bi	<0.0018	O	Ge	<0.0015	M	Mo	<0.0087	M	Sm	<0.0044	M	Sn	<0.022
O	B	0.00040	O	Au	<0.0030	M	Nd	<0.0087	O	Sc	<0.000020	O	Ti	<0.00070
M	Cd	<0.013	M	Hf	<0.0087	O	Ni	<0.0023	O	Se	<0.050	M	W	<0.044
O	Ca	0.0026	M	Ho	<0.0022	M	Nb	<0.0022	O	Si	<0.0034	M	U	<0.0087
M	Ce	<0.022	M	In	<0.044	n	Os		M	Ag	<0.0087	O	V	<0.00090
M	Cs	0.021	M	Ir	<0.022	M	Pd	<0.022	s	Na		M	Yb	<0.0044
M	Cr	<0.022	O	Fe	<0.0011	O	P	0.0014	M	Sr	<0.0022	M	Y	<0.18
M	Co	<0.013	M	La	<0.0022	M	Pt	<0.0087	O	S	<0.072	O	Zn	<0.00020
O	Cu	<0.0014	M	Pb	<0.013	O	K	0.22	M	Ta	<0.031	M	Zr	<0.022

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.030 g/mL

(over)

QA:KL Rev.032702DN

Inorganic Ventures, Inc.
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Technical Support: 800-569-6799

Paul R. Haines
Quality Assurance Manager

EXPIRES
1 Aug 2003

Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Lithium in 0.1% HNO_3 (abs)

Catalog Number: CGLI1-1, CGLI1-2 and CGLI1-5

010729

Lot Number: **T-LI02059**

Starting Material:	Li_2CO_3
Starting Material Purity:	99.999%
Starting Material Lot No:	1053

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 10/22/02
DATE EXPIRED: 11/01/2003
DATE OPENED: 10/23/02
INORG: 3736 PO: F52057

CERTIFIED CONCENTRATION: 997 ± 1 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 997 ± 1 µg/mL
Method: Gravimetric as the Sulfate vs NIST weights #822/254143-94.

Instrument Analysis: 998 ± 2 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3129a.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.010	M	Dy	<0.00060	s	Li		M	Pr	<0.000030	O	Te	<0.0090
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
O	As	<0.044	M	Eu	<0.00030	O	Mg	<0.00010	M	Rh	<0.00010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	O	Mn	<0.00020	M	Rb	<0.00010	M	Th	<0.00010
O	Be	<0.000050	M	Ga	<0.00010	O	Hg	<0.0070	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
O	B	<0.0060	O	Au	<0.010	M	Nd	<0.00020	M	Sc	<0.0010	O	Ti	<0.00030
O	Cd	<0.0018	M	Hf	<0.00020	O	Ni	<0.0040	O	Se	<0.020	M	W	<0.0010
O	Ca	0.051	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	0.023	M	U	<0.00020
M	Ce	<0.00050	O	In	<0.030	n	Os		O	Ag	<0.0040	O	V	<0.0010
M	Cs	0.0018	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	<0.10	M	Yb	<0.00010
O	Cr	<0.0020	O	Fe	<0.0020	O	P	<0.030	O	Sr	<0.0010	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	O	S	<0.050	O	Zn	<0.030
M	Cu	<0.00060	M	Pb	<0.00030	O	K	0.0070	M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.004 g/mL **(over)**

QA:KL Rev.032702DN

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Technical Support: 800-569-6799

Paul R. Haines
Quality Assurance Manager

EXPIRES 1 NOV 2003

Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Barium in 0.1% HNO_3 (abs)

010730

Catalog Number: CGBA1-1, CGBA1-2, and CGBA1-5

Lot Number: **T-BA02021**

Starting Material:	$Ba(NO_3)_2$
Starting Material Purity:	99.999%
Starting Material Lot No:	21879

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 3/03/03
DATE EXPIRED: 3/01/2004
DATE OPENED: 3/04/03
INORG: 3971 PO: E52064

CERTIFIED CONCENTRATION: 1003 ± 2 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 1003 ± 2 µg/mL
Method: Gravimetric as the Sulfate vs NIST weights #822/254143-94.

Instrument Analysis: 1002 ± 3 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3104a.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	<0.040	M	Dy	<0.00060	M	Li	<0.0010	n	Pr		i	Te	
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	M	Mg	<0.0030	M	Rh	<0.00010	M	Tl	<0.00010
s	Ba		M	Gd	0.0020	M	Mn	<0.00040	M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	M	Ga	<0.00010	i	Hg		M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	0.0010	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
M	B	<0.0070	M	Au	<0.00030	M	Nd	0.0020	M	Sc	<0.0010	M	Ti	<0.0050
M	Cd	<0.00030	M	Hf	<0.00020	i	Ni		O	Se	<0.40	M	W	<0.0010
O	Ca	<0.010	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.020	M	U	<0.00020
n	Ce		i	In		n	Os		M	Ag	<0.00020	M	V	<0.00020
n	Cs		M	Ir	<0.00050	M	Pd	<0.00050	O	Na	<0.090	M	Yb	<0.00010
M	Cr	<0.00050	O	Fe	<0.050	O	P	<0.050	M	Sr	0.0040	M	Y	<0.0040
M	Co	<0.00030	n	La		M	Pt	<0.00020	n	S		O	Zn	<0.030
M	Cu	<0.00060	M	Pb	<0.00030	n	K		M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.000 g/mL

(over)

QA:KL Rev.112702DN

Paul R. Haines

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Quality Assurance Manager

EXPIRES 1 MAR 2004

Certificate of Analysis

010731

CUSTOM-GRADE SOLUTION 1000 µg/mL Beryllium in 2% HNO_3 (abs)

Catalog Number: CGBE1-1, CGBE1-2 and CGBE1-5

Lot Number: **S-QBE01080**

INORGANIC VENTURES LAB
DATE RECEIVED: 6/19/02
DATE ENTERED: 7/01/2003
DATE PRINTED: 6/19/02
INDEX: 3499 PO: F51941

Starting Material:	Beryllium Acetate
Starting Material Purity:	99.999%
Starting Material Lot No:	9504-2

CERTIFIED VALUE: 1000 µg/mL

The certified value is the average of the classical wet assay and instrument analysis unless otherwise specified. All standards are accurate to a relative precision of ± 0.5% at the 95% confidence level for a period of 1 year. (See expiration date below)

Calculated Value: 1003 µg/mL
Method: Calculated, based on starting material

Instrument Analysis: 997 µg/mL
Method : Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3105a
Sufficient number of sample measurements were made to give a minimum relative precision of ± 0.5% at the 95% confidence level.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**.
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.04	M	Dy	<0.0006	O	Li	<0.02	M	Pr	<0.00003	M	Te	<0.003
M	Sb	<0.00005	M	Er	<0.0005	M	Lu	<0.00004	M	Re	<0.0001	M	Tb	<0.00003
M	As	<0.001	M	Eu	<0.0003	O	Mg	<0.01	M	Rh	<0.0001	M	Tl	<0.0001
M	Ba	<0.001	M	Gd	<0.0001	M	Mn	<0.0004	M	Rb	<0.0001	M	Th	<0.0001
s	Be		M	Ga	<0.0001	O	Hg	i	M	Ru	<0.0002	M	Tm	<0.00004
M	Bi	<0.00004	M	Ge	<0.0006	M	Mo	<0.0002	M	Sm	<0.0001	M	Sn	<0.0005
M	B	<0.007	M	Au	<0.0003	M	Nd	<0.0002	M	Sc	<0.001	M	Ti	<0.005
M	Cd	<0.0003	M	Hf	<0.0002	M	Ni	<0.03	O	Se	i	M	W	<0.001
O	Ca	<0.01	M	Ho	<0.00005	M	Nb	<0.00005	O	Si	<0.02	M	U	<0.0002
M	Ce	<0.0005	O	In	<0.03	n	Os		M	Ag	<0.0002	M	V	<0.0002
M	Cs	<0.00003	M	Ir	<0.0005	M	Pd	<0.0005	O	Na	<0.09	M	Yb	<0.0001
M	Cr	<0.0005	O	Fe	i	O	P	i	M	Sr	<0.00005	M	Y	0.004
M	Co	<0.0003	M	La	<0.00005	M	Pt	<0.0002	n	S		M	Zn	0.005
M	Cu	<0.0006	M	Pb	<0.0003	n	K		M	Ta	<0.0007	M	Zr	<0.0005

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.023 g/mL

QA:KL Rev.011002DN

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Paul R. Haines
Quality Assurance Manager

EXPIRES 1/2/2003

Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Chromium^{+3} in 1.4% HNO_3 (abs) 010732

Catalog Number: CGCR(3)1-1, CGCR(3)1-2 and CGCR(3)1-5

Lot Number: **T-CR02125**

Starting Material:	Chromium Metal
Starting Material Purity:	99.995%
Starting Material Lot No:	F16122

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 10/22/02
DATE EXPIRED: 11/01/2003
DATE OPENED: 10/23/02
INORG: 3732 PO: F52057

CERTIFIED CONCENTRATION: 995 ± 3 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Instrument Analysis: 995 ± 3 µg/mL (Avg of 3 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3112a.

Calculated Value: 1002 µg/mL
Method: Calculated, based on starting material.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**.
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	0.0028	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	O	Mg	<0.010	M	Rh	<0.00010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	O	Mn	<0.050	M	Rb	0.0066	M	Th	<0.00010
M	Be	<0.000050	M	Ga	0.00070	O	Hg	<0.10	M	Ru	0.017	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
M	B	<0.0070	M	Au	<0.00030	M	Nd	<0.00020	M	Sc	<0.0010	M	Ti	<0.0050
M	Cd	<0.00030	M	Hf	<0.00020	O	Ni	<0.10	i	Se		M	W	<0.0010
O	Ca	0.0011	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.10	M	U	<0.00020
M	Ce	<0.00050	O	In	<0.10	n	Os		M	Ag	0.00070	i	V	
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	0.016	M	Yb	<0.00010
s	Cr		O	Fe	<0.10	i	P		M	Sr	<0.000050	M	Y	<0.0040
O	Co	<0.10	M	La	<0.000050	M	Pt	<0.00020	n	S		O	Zn	<0.10
M	Cu	<0.00060	M	Pb	0.00039	n	K		M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.010 g/mL

(over)

QA:KSL Rev.092502DN

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Paul R. Haines
Quality Assurance Manager

EXPIRES
1/2003

Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Copper in 2% HNO_3 (abs)

Catalog Number: CGCU1-1, CGCU1-2 and CGCU1-5

010733

Lot Number: **T-CU02060**

Starting Material:	Copper Metal
Starting Material Purity:	99.999%
Starting Material Lot No:	K09C13

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 02/13/03
DATE EXPIRED: 03/01/2004
DATE OPENED: 02/13/03
INORG: 3955 PO: F52060

CERTIFIED CONCENTRATION: 1005 ± 2 µg/mL

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

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ Uncertainty $(\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 1005 ± 2 µg/mL
Method: EDTA Titration vs NIST SRM 928 Lead Nitrate.

Instrument Analysis: 1003 ± 5 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3114.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.010	M	Dy	<0.00060	O	Li	<0.0050	M	Pr	<0.000030	O	Te	<0.031
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.00004	M	Re	<0.00010	M	Tb	<0.000030
O	As	<0.044	M	Eu	<0.00030	O	Mg	0.00080	M	Rh	0.0010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	O	Mn	<0.00020	M	Rb	<0.00010	M	Th	<0.00010
O	Be	<0.00020	O	Ga	<0.0070	O	Hg	<0.0070	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	0.000090	O	Ge	<0.010	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	0.0013
O	B	<0.0060	O	Au	<0.010	M	Nd	<0.00020	M	Sc	<0.0010	O	Ti	<0.00030
O	Cd	<0.0018	M	Hf	<0.00020	O	Ni	<0.0060	O	Se	<0.020	M	W	<0.0010
O	Ca	0.00058	M	Ho	<0.000050	M	Nb	<0.00005	O	Si	<0.0033	M	U	<0.00020
M	Ce	<0.00050	O	In	<0.030	n	Os		O	Ag	<0.0040	M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	0.0024	O	Na	<0.10	M	Yb	<0.00010
O	Cr	<0.0020	O	Fe	<0.0020	O	P	<0.030	M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	O	S	<0.050	O	Zn	i
s	Cu		M	Pb	0.0029	O	K	<0.0060	M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.015 g/mL

QA:KSL Rev.070302DN

(over)

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EXPIRES 1 MAR 2004

inorganic ventures / iv labs

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010734

certificate of analysis

1.0 **Inorganic Ventures / IV Labs is an ISO Guide 34-2000 Certified Reference Material (CRM) Manufacturer: Certificate #883-02.** *The certificate is designed and the certified value(s) and uncertainty(ies) are determined in accordance with ISO Guide 31-2000 (Reference Materials - Contents of certificates and label(s), ISO Guide 34-2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35-1989 "Certification of Reference Materials - General and Statisical Principles."*

2.0 **DESCRIPTION OF CRM** Custom-Grade **1000 µg/mL Nickel in 1.4% (abs) HNO_3**

Catalog Number:	CGNI1-1, CGNI1-2, and CGNI1-5
Lot Number:	**T-NI02028**
Starting Material:	Ni pieces
Starting Material Purity (%):	99.9994
Starting Material Lot No	L06L02
Matrix:	1.4% (abs) HNO_3

INORGANIC LABS/RADCHEM LABS Pg. 1 of 2
DATE RECEIVED: 02/13/03
DATE EXPIRED: 03/01/2004
DATE OPENED: 02/13/03
INORG: 3957 PO: E52060

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 998 ± 2 µg/mL

Certified Density: 1.011 g/mL (measured at 22° C)

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

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

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

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
$\sum S_i$ = The summation of all significant estimated errors. (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

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

- "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
- This IV product is Traceable to NIST via direct comparison to NIST SRMs. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors.

4.1 **Assay Method #1** **1002 ± 3 µg/mL**
ICP Assay NIST SRM 3136 Lot Number: 000612

Assay Method #2 **998 ± 2 µg/mL**
EDTA NIST SRM 928 Lot Number: 880710

4.2 **BALANCE CALIBRATION** - All balances are checked daily using in-house procedure number 6-IMM-001. The weights used for testing are annually compared to Gerhart Scale Corporation's master weights and are traceable to the National Institute of Standards and Technology (NIST). The NIST Traceability numbers are 692476 - Class 1 and 692476A - Class 2. The NIST test number is 822/260017-98. All analytical balances are calibrated every 4 months by Gerhart Scale Corp. of South Amboy. The balances are calibrated with a class 1 and/or class 2 analytical weight set. These weights are tested annually by a NIST / NVLAP accredited calibration lab. The NIST test number is 822/260017-98.

4.3 **THERMOMETER CALIBRATION** - The thermometers used in the determination of the final densities are calibrated vs standard thermometer No. 903-2680 which was certified in accordance with the procedures outlined by ASTM E77-87 and NIST Monograph 150 using NIST Test Nos. and Std Nos.: 769543, 217368/769543, 217368/P14452, 176240/P14452, 176240. The in-house procedure No. is 2-QC-001.Thermometers which are not calibrated vs standard thermometer No. 903-2680 are traceable to NIST Identification Nos. 92564, 119016, 471047 and NIST test report Nos. 811/258522, 811/2557078, and 236090.

4.4 **GLASSWARE CALIBRATION** - In-house procedure 3-QC-002 is used to calibrate all Class A Glassware used in the manufacture and quality control of Custom Grade Standards.

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

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

O	Al < 0.00938	M	Dy < 0.06577	O	Li < 0.00006	M	Pr < 0.00329	M	Te < 0.32886
M	Sb < 0.00548	M	Er < 0.05481	M	Lu < 0.00439	M	Re < 0.01096	M	Tb < 0.00329
O	As < 0.01689	M	Eu < 0.03289	O	Mg 0.00002	M	Rh < 0.01096	M	Tl < 0.01096
M	Ba < 0.10962	M	Gd < 0.01096	M	Mn < 0.04385	M	Rb < 0.01096	M	Th < 0.01096
O	Be < 0.00626	M	Ga < 0.01096	O	Hg < 0.03441	M	Ru < 0.02192	M	Tm < 0.00439
M	Bi < 0.00439	M	Ge < 0.06577	M	Mo < 0.02192	M	Sm < 0.01096	M	Sn < 0.05481
O	B < 0.03097	M	Au < 0.03289	M	Nd < 0.02192	M	Sc < 0.10962	M	Ti < 0.54811
M	Cd < 0.03289	M	Hf < 0.02192	S	Ni	O	Se < 0.01877	M	W < 0.10962
O	Ca < 0.01157	M	Ho < 0.00548	M	Nb < 0.00548	O	Si 0.00188	M	U < 0.02192
M	Ce < 0.05481	M	In < 0.10962	n	Os	M	Ag < 0.02192	M	V < 0.02192
M	Cs < 0.00329	M	Ir < 0.05481	M	Pd < 0.05481	O	Na 0.00102	M	Yb < 0.01096
M	Cr < 0.05481	O	Fe 0.00156	O	P < 0.31280	M	Sr < 0.00548	M	Y < 0.43849
O	Co 0.00182	M	La < 0.00548	M	Pt < 0.02192	O	S < 0.07820	M	Zn 0.00189
M	Cu < 0.06577	M	Pb < 0.03289	O	K 0.00043	M	Ta < 0.07674	M	Zr < 0.05481

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

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipet from container. Do not return portions removed for pipetting to container.
Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.69; +2; 6; $Ni(H_2O)_6^{2+}$
Chemical Compatibility - Stable in HCl, HNO_3, H_2SO_4, HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.
Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.
Ni Containing Samples (Preparation and Solution) - Metal (Soluble in HNO_3); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO_3).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line		Estimated D.L.	Order	Type	Interferences (underlined indicates severe at ≈ concs.)
ICP-OES	221.647 nm	0.01 / 0.0009 µg/mL	1	ion	Si
ICP-OES	232.003 nm	0.02 / 0.006 µg/mL	1	atom	Cr, Re, Os, Nb, Ag, Pt, Fe
ICP-OES	231.604 nm	0.02 / 0.002 µg/mL	1	ion	Sb, Ta, Co
ICP-MS	60 amu	100 ppt	n/a	M+	$^{43}Ca^{16}O^{1}H$, $^{44}Ca^{16}O$, $^{23}Na^{37}Cl$

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

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

10.0 QUALITY STANDARD DOCUMENTATION

010735

10.1 ISO 9001:2000 Quality Management System Registration - QMI Certificate Number 010105
Recognized by:
Registrar Accreditation Board (ANSI-RAB)
Standards Council of Canada (SCC)
Dutch Council for Accreditation (RVA)
Entidad Mexicana de Acreditacion, a.c.(EMA)
Members of IQ Net International Certification Network:
Argentina (IRAM), Australia (QAS), Austria (ÖQS), Belgium (Avinter) , Brazil (FCAV), Canada (QMI), Hong Kong (HKQAA), Columbia (ICONTEC), Czech Republic (CQS), Denmark (DS), Finland (SFS), France (AFAQ), Germany (DQS), Greece (ELOT), Hungary (MSZT), Ireland (NSAI), Israel (SII), Italy (CISQ), Japan (JQA), Korea (KSA-QA), Netherlands (KEMA), Norway (NCS), Poland(PCBC), Portugal (APCER), Singapore (PSB), Slovenia (SIQ), Spain (AENOR), Switzerland (SQS)

10.2 ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 883.01

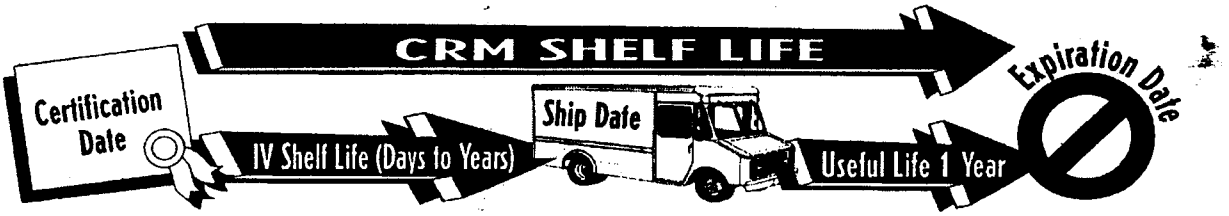
10.3 ISO/IEC Guide 34 - 2000 "General Requirements for the Competence of Reference Material Producers" - Reference Materials Production - Accredited A2LA Certificate Number 883.02
A2LA Mutual Recognition Agreement Partners:
Australia (NATA), Austria (BmwA), Belgium (BELTEST) (BKO-OBE), Canada (SCC), Chinese Taipei (CNLA), Czech Republic (NAO), Denmark (DANAK), Finland (FINAS), France (COFRAC), Germany (DAR), Hong Kong (HKAS, Ireland (NAB), Italy (SIT) (SINAL), Japan (JAB) (JNLA), Republic of Korea (KOLAS), The Netherlands (RvA), New Zealand (IANZ), Norway (NA), Portugal (IPQ), Singapore (SAC-SINGLAS), Spain (ENAC), Sweden (SWEDAC), Switzerland (SAS), United Kingdom (UKAS) and United States (NVLAP) (ICBO ES)

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY



11.1 IV Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies (P-SP01020) of chemically-stable solutions performed at Inorganic Ventures / IV Labs indicate a CRM shelf-life of four years for solutions packaged in 500-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

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

Certification Date: October 11, 2002

Expiration Date: EXPIRES 1 MAR 2004

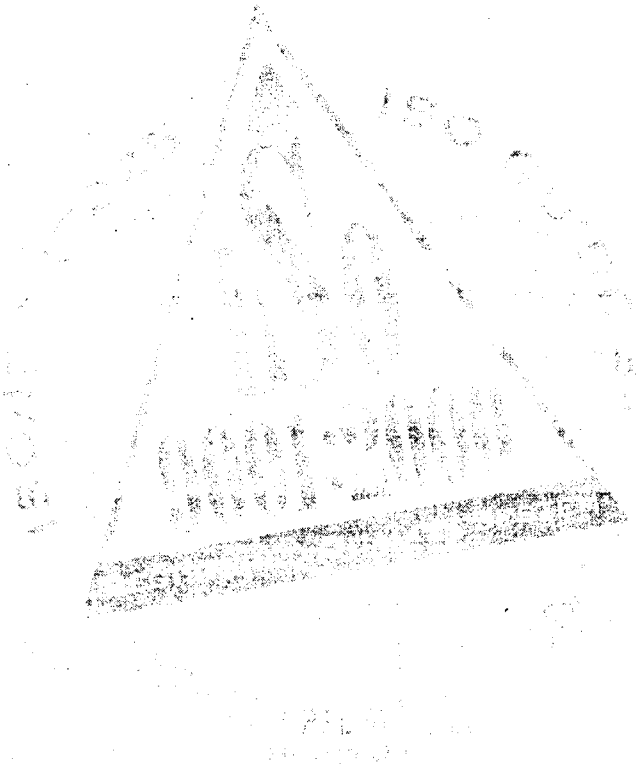
INORGANIC LABS/RADCHEM LABS Pg. 2 of 2
DATE RECEIVED: 02/13/03
DATE EXPIRED: 03/01/2004
DATE OPENED: 02/13/03
INORG: 3957 PO: F52060

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Debbie Newman, QA Administrator

Certificate Approved By: Katalin Le, QC Supervisor

Certifying Officer: Paul Gaines, Chemist, Senior Technical Director



Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Cadmium in 2% HNO_3 (abs)

010736

Catalog Number: CGCD1-1, CGCD1-2 and CGCD1-5

Lot Number: **T-CD01125**

Starting Material:	Cadmium Metal
Starting Material Purity:	99.999%
Starting Material Lot No:	H02K40A

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 3/03/03
DATE EXPIRED: 3/01/2004
DATE OPENED: 3/04/03
INORG: 3972 PO: F52064

CERTIFIED CONCENTRATION: 1003 ± 3 µg/mL

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

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ Uncertainty $(\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 1003 ± 3 µg/mL
Method: EDTA Titration vs NIST SRM 928 Lead Nitrate.

Instrument Analysis: 1003 ± 3 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3108.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**.
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.00030	M	Dy	<0.00060	O	Li	<0.0050	M	Pr	<0.000030	O	Te	<0.031
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
O	As	<0.12	M	Eu	<0.00030	O	Mg	<0.00010	M	Rh	<0.00010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	O	Mn	<0.00020	M	Rb	<0.00010	M	Th	<0.00010
O	Be	<0.000050	M	Ga	<0.00010	O	Hg	<0.0070	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
O	B	<0.0060	O	Au	<0.010	M	Nd	<0.00020	M	Sc	<0.0010	O	Ti	<0.00030
s	Cd		M	Hf	<0.00020	O	Ni	<0.0060	O	Se	<0.020	M	W	<0.0010
O	Ca	0.0018	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.010	M	U	<0.00020
M	Ce	<0.00050	O	In	<0.030	n	Os		O	Ag	<0.27	M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	O	Pd	<0.053	O	Na	<0.10	M	Yb	<0.00010
O	Cr	<0.0040	O	Fe	<0.0020	O	P	<0.030	M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	O	S	<0.020	O	Zn	<0.030
M	Cu	<0.00060	M	Pb	<0.00030	O	K	<0.0060	M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.015 g/mL

(over)

QA:KL Rev.080102DN

Paul R. Haines

Inorganic Ventures, Inc.
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Orders: 800-669-6799 • FAX (732) 901-1903
Technical Support: 800-569-6799

Quality Assurance Manager

EXPIRES 1 MAR 2004

inorganic ventures / iv labs

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phone: 800-669-6799 • 732-901-1900 • fax: 732-901-1903
e-mail: ivsales@ivstandards.com • website: www.ivstandards.com

010737

certificate of analysis

1.0 **Inorganic Ventures / IV Labs is an ISO Guide 34-2000 Certified Reference Material (CRM) Manufacturer: Certificate #883-02.** *The certificate is designed and the certified value(s) and uncertainty(ies) are determined in accordance with ISO Guide 31-2000 (Reference Materials - Contents of certificates and label(s), ISO Guide 34-2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35-1989 "Certification of Reference Materials - General and Statisical Principles."*

2.0 **DESCRIPTION OF CRM** Custom-Grade **1000 µg/mL Cobalt in 2% (abs) HNO_3**

Catalog Number:	CGCO1-1, CGCO1-2, and CGCO1-5
Lot Number:	**T-CO01120**
Starting Material:	Co powder
Starting Material Purity (%):	99.9957
Starting Material Lot No	22897
Matrix:	2% (abs) HNO_3

INORGANIC LABS/RADCHEM LABS Pg. 1 of 2
DATE RECEIVED: 3/03/03
DATE EXPIRED: 3/01/2004
DATE OPENED: 3/04/03
INORG: 3973 PO: F52064

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1002 ± 3 µg/mL

Certified Density: 1.016 g/mL (measured at 22° C)

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

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

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

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
$\sum S_i$ = The summation of all significant estimated errors. (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

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

- "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
- This IV product is Traceable to NIST via direct comparison to NIST SRMs. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors.

4.1 **Assay Method #1** **998 ± 4 µg/mL**
ICP Assay NIST SRM 3181 Lot Number: 000630

Assay Method #2 **1002 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 880710

4.2 **BALANCE CALIBRATION** - All balances are checked daily using in-house procedure number 6-IMM-001. The weights used for testing are annually compared to Gerhart Scale Corporation's master weights and are traceable to the National Institute of Standards and Technology (NIST). The NIST Traceability numbers are 692476 - Class 1 and 692476A - Class 2. The NIST test number is 822/260017-98. All analytical balances are calibrated every 4 months by Gerhart Scale Corp. of South Amboy. The balances are calibrated with a class 1 and/or class 2 analytical weight set. These weights are tested annually by a NIST / NVLAP accredited calibration lab. The NIST test number is 822/260017-98.

4.3 **THERMOMETER CALIBRATION** - The thermometers used in the determination of the final densities are calibrated vs standard thermometer No. 903-2680 which was certified in accordance with the procedures outlined by ASTM E77-87 and NIST Monograph 150 using NIST Test Nos. and Std Nos.: 769543, 217368/769543, 217368/P14452, 176240/P14452, 176240. The in-house procedure No. is 2-QC-001.Thermometers which are not calibrated vs standard thermometer No. 903-2680 are traceable to NIST Identification Nos. 92564, 119016, 471047 and NIST test report Nos. 811/258522, 811/2557078, and 236090.

4.4 **GLASSWARE CALIBRATION** - In-house procedure 3-QC-002 is used to calibrate all Class A Glassware used in the manufacture and quality control of Custom Grade Standards.

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

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

O	Al	0.00025	M	Dy	< 0.02419	O	Li	0.00001	M	Pr	< 0.00121	M	Te	< 0.12097
M	Sb	< 0.00202	M	Er	< 0.02016	M	Lu	< 0.00161	M	Re	< 0.00403	M	Tb	< 0.00121
O	As	< 0.10000	M	Eu	< 0.01210	O	Mg	0.00045	M	Rh	< 0.00403	M	Tl	< 0.00403
M	Ba	< 0.04032	M	Gd	< 0.00403	O	Mn	0.00003	M	Rb	< 0.00403	M	Th	< 0.00403
M	Be	< 0.00202	M	Ga	< 0.00403	O	Hg	< 0.05000	M	Ru	< 0.00807	M	Tm	< 0.00161
M	Bi	< 0.00161	M	Ge	< 0.02419	M	Mo	< 0.00807	M	Sm	< 0.00403	M	Sn	< 0.02016
O	B	< 0.04000	M	Au	< 0.01210	M	Nd	< 0.00807	M	Sc	< 0.04032	M	Ti	< 0.20162
M	Cd	< 0.01210	M	Hf	< 0.00807	O	Ni	< 0.02000	M	Se	< 0.03226	M	W	< 0.04032
O	Ca	0.00325	M	Ho	< 0.00202	M	Nb	< 0.00202	O	Si	< 0.00400	M	U	< 0.00807
M	Ce	< 0.02016	M	In	< 0.04032	n	Os		M	Ag	< 0.00807	M	V	< 0.00807
M	Cs	< 0.00121	M	Ir	< 0.02016	M	Pd	< 0.02016	O	Na	0.00138	M	Yb	< 0.00403
M	Cr	< 0.02016	O	Fe	0.00875	n	P		M	Sr	< 0.00202	M	Y	< 0.16129
s	Co		M	La	< 0.00202	M	Pt	< 0.00807	n	S		M	Zn	< 0.08065
M	Cu	< 0.02419	M	Pb	< 0.01210	O	K	0.03000	M	Ta	< 0.02823	M	Zr	< 0.02016

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

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipet from container. Do not return portions removed for pipetting to container.
Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.9332; +2; 6; $Co(H_2O)_6^{2+}$
Chemical Compatibility - Stable in HCl, HNO_3, H_2SO_4, HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.
Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.
Co Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO_3).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line		Estimated D.L.	Order	Type	Interferences (underlined indicates severe at ≈ concs.)
ICP-OES	238.892 nm	0.01/.002 µg/mL	1	ion	Fe, W, Ta
ICP-OES	228.616 nm	0.01/.001µg/mL	1	ion	
ICP-OES	237.862 nm	0.01/.002 µg/mL	1	ion	W, Re, Al; Ta
ICP-MS	59 amu	2 ppt	n/a	M+	$^{42}Ca^{16}O^1H$, $^{40}Ar^{18}O^1H$, $^{36}Ar^{23}Na$, $^{43}Ca^{16}O$, $^{24}Mg^{35}Cl$

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

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

10.0 QUALITY STANDARD DOCUMENTATION

010733

10.1 ISO 9001:2000 Quality Management System Registration - QMI Certificate Number 010105
Recognized by:
Registrar Accreditation Board (ANSI-RAB)
Standards Council of Canada (SCC)
Dutch Council for Accreditation (RVA)
Entidad Mexicana de Acreditacion, a.c.(EMA)
Members of IQ Net International Certification Network:
Argentina (IRAM), Australia (QAS), Austria (ÖQS), Belgium (Avinter) , Brazil (FCAV), Canada (QMI), Hong Kong (HKQAA), Columbia (ICONTEC), Czech Republic (CQS), Denmark (DS), Finland (SFS), France (AFAQ), Germany (DQS), Greece (ELOT), Hungary (MSZT), Ireland (NSAI), Israel (SII), Italy (CISQ), Japan (JQA), Korea (KSA-QA), Netherlands (KEMA), Norway (NCS), Poland(PCBC), Portugal (APCER), Singapore (PSB), Slovenia (SIQ), Spain (AENOR), Switzerland (SQS)

10.2 ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 883.01

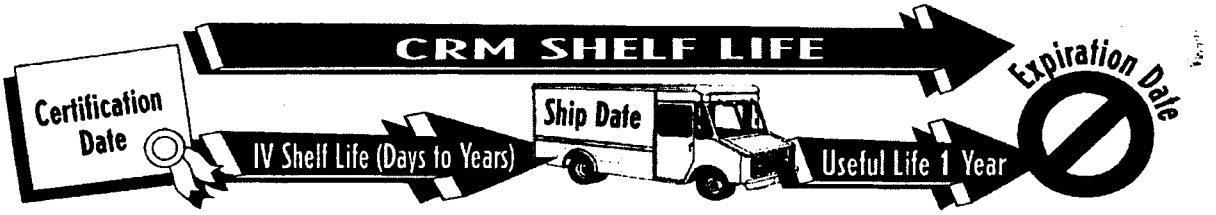
10.3 ISO/IEC Guide 34 - 2000 "General Requirements for the Competence of Reference Material Producers" - Reference Materials Production - Accredited A2LA Certificate Number 883.02
A2LA Mutual Recognition Agreement Partners:
Australia (NATA), Austria (BmwA), Belgium (BELTEST) (BKO-OBE), Canada (SCC), Chinese Taipei (CNLA), Czech Republic (NAO), Denmark (DANAK), Finland (FINAS), France (COFRAC), Germany (DAR), Hong Kong (HKAS, Ireland (NAB), Italy (SIT) (SINAL), Japan (JAB) (JNLA), Republic of Korea (KOLAS), The Netherlands (RvA), New Zealand (IANZ), Norway (NA), Portugal (IPQ), Singapore (SAC-SINGLAS), Spain (ENAC), Sweden (SWEDAC), Switzerland (SAS), United Kingdom (UKAS) and United States (NVLAP) (ICBO ES)

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY



11.1 IV Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies (P-SP01020) of chemically-stable solutions performed at Inorganic Ventures / IV Labs indicate a CRM shelf-life of four years for solutions packaged in 500-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

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

Certification Date: September 05, 2002

Expiration Date: EXPIRES 1 MAR 2004

INORGANIC LABS/RADCHEM LABS Pg. 2 of 2
DATE RECEIVED: 3/03/03
DATE EXPIRED: 3/01/2004
DATE OPENED: 3/04/03
INORG: 3973 PO: F52064

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Debbie Newman, QA Administrator

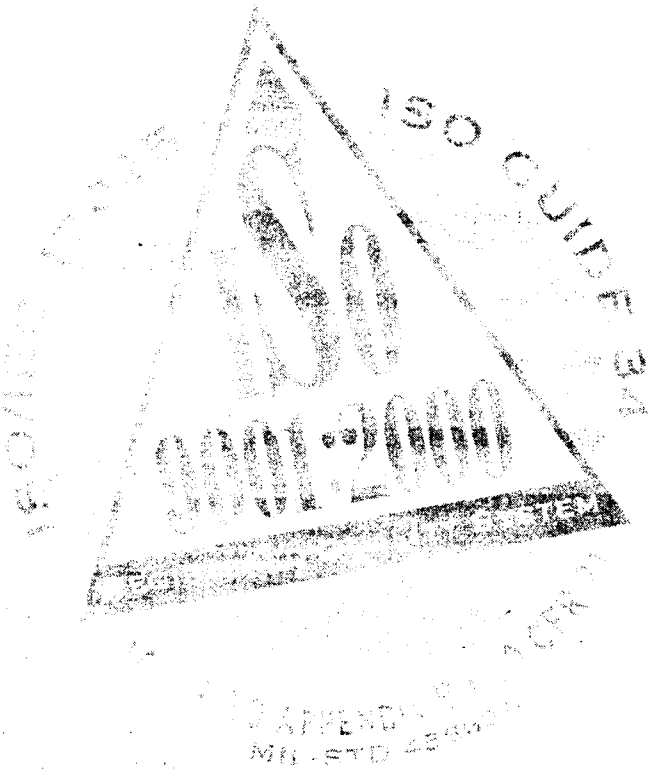
Debbie Newman

Certificate Approved By: Katalin Le, QC Supervisor

Katalin Le

Certifying Officer: Paul Gaines, Chemist, Senior Technical Director

Paul R Gaines



Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Manganese in 2% HNO_3 (abs)

010739

Catalog Number: CGMN1-1, CGMN1-2, and CGMN1-5

Lot Number: **T-MN02033**

Starting Material:	Manganese Metal
Starting Material Purity:	99.998%
Starting Material Lot No:	21563

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 01/16/03
DATE EXPIRED: 02/01/2004
DATE OPENED: 01/16/03
INORG: 3921 PO: F52073

CERTIFIED CONCENTRATION: 1004 ± 3 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 1004 ± 3 µg/mL
Method: EDTA Titration vs NIST SRM 928 Lead Nitrate.

Instrument Analysis: 1001 ± 3 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3132.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

M	Al	<0.00090	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	M	Mg	0.0040	M	Rh	<0.00010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	s	Mn		M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	i	Ga		O	Hg	<0.030	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	<0.00060	M	Mo	0.00024	M	Sm	<0.00010	M	Sn	<0.00050
M	B	<0.0070	M	Au	<0.00030	M	Nd	<0.00020	M	Sc	<0.0010	M	Ti	<0.0050
M	Cd	<0.00030	M	Hf	<0.00020	O	Ni	<0.050	O	Se	<0.40	M	W	<0.0010
O	Ca	<0.010	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.020	M	U	<0.00020
M	Ce	<0.00050	i	In		n	Os		M	Ag	<0.00020	i	V	
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	<0.090	M	Yb	<0.00010
M	Cr	<0.00050	i	Fe		i	P		M	Sr	<0.000050	M	Y	<0.0040
O	Co	<0.050	M	La	<0.000050	M	Pt	<0.00020	n	S		M	Zn	<0.0020
M	Cu	<0.00060	M	Pb	<0.00030	n	K		M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.015 g/mL

(over)

QA:KL Rev.082202DN

Scott Haines
Quality Assurance Manager

Inorganic Ventures, Inc.
195 Lehigh Avenue • Suite 4 • Lakewood, NJ 08701
Orders: 800-669-6799 • FAX (732) 901-1903
Technical Support: 800-569-6799

EXPIRES 1 FEB 2004

Certificate of Analysis

010740

CUSTOM-GRADE SOLUTION 1000 µg/mL Vanadium in 1.4% HNO_3 (abs)

Catalog Number: CGV1-1, CGV1-2 and CGV1-5

Lot Number: **S-QV01080**

Starting Material:	Vanadium Pentoxide
Starting Material Purity:	99.999%
Starting Material Lot No:	46

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 10/22/03
DATE EXPIRED: 11/01/2003
DATE OPENED: 10/23/03
INORG: 3740 PO: F52057

CERTIFIED VALUE: 995 µg/mL

The certified value is the average of the classical wet assay and instrument analysis unless otherwise specified. All standards are accurate to a relative precision of ± 0.5% at the 95% confidence level for a period of 1 year. (See expiration date below)

Classical Wet Assay: 999 µg/mL

Method: EDTA Titration vs NIST SRM 928 Lead Nitrate

Sufficient number of sample measurements were made to give a minimum relative precision of ± 0.3% at the 95% confidence level.

Instrument Analysis: 991 µg/mL

Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3165

Sufficient number of sample measurements were made to give a minimum relative precision of ± 0.5% at the 95% confidence level.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**.
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Al	0.0095	M	Dy	<0.0006	M	Li	<0.001	M	Pr	<0.00003	M	Te	<0.003
M	Sb	0.042	M	Er	<0.0005	M	Lu	<0.00004	M	Re	<0.0001	M	Tb	<0.00003
M	As	<0.001	M	Eu	<0.0003	M	Mg	0.0089	M	Rh	<0.0001	M	Tl	<0.0001
M	Ba	<0.001	M	Gd	<0.0001	O	Mn	i	M	Rb	<0.0001	M	Th	<0.0001
M	Be	<0.00005	M	Ga	<0.0001	O	Hg	i	M	Ru	<0.0002	M	Tm	<0.00004
M	Bi	<0.00004	M	Ge	<0.0006	M	Mo	0.016	M	Sm	<0.0001	M	Sn	<0.0005
M	B	<0.007	M	Au	<0.0003	M	Nd	<0.0002	M	Sc	<0.001	M	Ti	<0.005
M	Cd	<0.0003	M	Hf	<0.0002	O	Ni	<0.05	O	Se	<0.4	M	W	0.00055
O	Ca	<0.01	M	Ho	<0.00005	M	Nb	0.00024	O	Si	<0.03	M	U	0.0011
M	Ce	<0.0005	O	In	<0.07	n	Os		M	Ag	0.00044	s	V	
M	Cs	<0.00003	M	Ir	<0.0005	M	Pd	<0.0005	O	Na	<0.09	M	Yb	<0.0001
O	Cr	<0.02	O	Fe	<0.05	O	P	i	M	Sr	<0.00005	M	Y	<0.004
O	Co	<0.05	M	La	<0.00005	M	Pt	<0.0002	n	S		M	Zn	0.0041
M	Cu	<0.0006	M	Pb	<0.0003	n	K		M	Ta	<0.0007	M	Zr	<0.0005

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.013 g/mL

QA:KL Rev.011002DN

(over)

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Paul R. Haines
Quality Assurance Manager

EXPIRES
1 NOV 2003

Certificate of Analysis

010741

CUSTOM-GRADE SOLUTION 1000 µg/mL Zinc in 1.4% HNO_3 (abs)

Catalog Number: CGZN1-1, CGZN1-2, and CGZN1-5

Lot Number: **T-ZN02015**

Starting Material:	Zinc Metal
Starting Material Purity:	99.999%
Starting Material Lot No:	J17L26

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 10/22/02
DATE EXPIRED: 11/01/2003
DATE OPENED: 10/22/02
INORG: 3741 PO: F52057

CERTIFIED CONCENTRATION: 1007 ± 2 µg/mL

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

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ Uncertainty $(\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 1007 ± 2 µg/mL
Method: EDTA Titration vs NIST SRM 928 Lead Nitrate

Instrument Analysis: 1006 ± 4 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3168a

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.** An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	<0.0020	M	Dy	<0.025	O	Li	0.0000050	M	Pr	<0.0013	M	Te	<0.13
M	Sb	<0.0021	M	Er	<0.021	M	Lu	<0.0017	M	Re	<0.0041	M	Tb	<0.0013
M	As	<0.041	M	Eu	<0.013	O	Mg	0.00011	M	Rh	<0.0041	M	Tl	<0.0041
M	Ba	<0.041	M	Gd	<0.0041	M	Mn	<0.017	M	Rb	<0.0041	M	Th	<0.0041
M	Be	<0.0021	M	Ga	<0.0041	O	Hg	<0.010	M	Ru	<0.0082	M	Tm	<0.0017
M	Bi	<0.0017	M	Ge	<0.025	M	Mo	<0.0082	M	Sm	<0.0041	M	Sn	<0.021
O	B	0.00015	M	Au	<0.013	M	Nd	<0.0082	M	Sc	<0.041	M	Ti	<0.21
M	Cd	<0.013	M	Hf	<0.0082	O	Ni	0.000085	M	Se	<0.033	M	W	<0.041
O	Ca	0.00022	M	Ho	<0.0021	M	Nb	<0.0021	O	Si	<0.0040	M	U	<0.0082
M	Ce	<0.021	M	In	<0.041	n	Os		M	Ag	<0.0082	M	V	<0.0082
M	Cs	<0.0013	M	Ir	<0.021	M	Pd	<0.021	O	Na	0.00055	M	Yb	<0.0041
O	Cr	<0.0010	O	Fe	0.000045	O	P	<0.0030	M	Sr	<0.0021	M	Y	<0.17
M	Co	<0.013	M	La	<0.0021	M	Pt	<0.0082	O	S	<0.020	s	Zn	
O	Cu	<0.00050	M	Pb	<0.013	O	K	0.00018	M	Ta	<0.029	M	Zr	<0.021

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 21°C): 1.011 g/mL

QA:KL Rev.051702DN

(over)

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Paul R. Haines
Quality Assurance Manager

EXPIRES
1 NOV 03

Certificate of Analysis

CUSTOM-GRADE SOLUTION

1000 µg/mL Lanthanum in 1.4% HNO_3 (abs) 010742

Catalog Number: CGLA1-1 and CGLA1-5

Lot Number: **S-QLA01054**

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 08/23/02
DATE EXPIRED: 09/01/2003
DATE OPENED: 08/26/02
INORG: 3650 PO: F52042

Starting Material:	Lanthanum Oxide
Starting Material Purity:	99.999%
Starting Material Lot No:	LA-0-5-017

CERTIFIED VALUE: 1001 µg/mL

The certified value is the average of the classical wet assay and instrument analysis unless otherwise specified. All standards are accurate to a relative precision of ± 0.5% at the 95% confidence level for a period of 1 year. (See expiration date below)

Classical Wet Assay: 1002 µg/mL
Method: EDTA Titration vs NIST SRM 928 Lead Nitrate
Sufficient number of sample measurements were made to give a minimum relative precision of ± 0.3% at the 95% confidence level.

Instrument Analysis: 999 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3127a
Sufficient number of sample measurements were made to give a minimum relative precision of ± 0.5% at the 95% confidence level.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.04	M	Dy	<0.0006	M	Li	<0.001	O	Pr	<0.02	M	Te	<0.003
M	Sb	<0.00005	M	Er	0.001	M	Lu	0.00004	M	Re	<0.0001	M	Tb	<0.00003
M	As	<0.001	M	Eu	<0.0003	M	Mg	<0.003	M	Rh	<0.0001	M	Tl	<0.0001
O	Ba	<0.02	M	Gd	0.039	M	Mn	<0.0004	M	Rb	<0.0001	M	Th	<0.0001
M	Be	<0.00005	M	Ga	<0.0001	O	Hg	<0.03	M	Ru	<0.0002	M	Tm	<0.00004
M	Bi	<0.00004	M	Ge	<0.0006	M	Mo	<0.0002	M	Sm	0.0004	M	Sn	<0.0005
O	B	<0.02	M	Au	<0.0003	M	Nd	0.0002	M	Sc	<0.001	M	Ti	<0.005
M	Cd	<0.0003	M	Hf	<0.0002	O	Ni	<0.05	O	Se	<0.4	M	W	<0.001
O	Ca	<0.01	M	Ho	0.0001	M	Nb	<0.00005	O	Si	<0.02	M	U	<0.0002
O	Ce	i	O	In	<0.03	n	Os		M	Ag	<0.0002	M	V	<0.0002
n	Cs		M	Ir	<0.0005	M	Pd	<0.0005	O	Na	<0.09	M	Yb	<0.0001
M	Cr	<0.0005	O	Fe	<0.05	O	P	<0.05	M	Sr	<0.00005	M	Y	<0.004
M	Co	<0.0003	s	La		M	Pt	<0.0002	n	S		M	Zn	<0.002
M	Cu	<0.0006	M	Pb	<0.0003	n	K		M	Ta	<0.0007	M	Zr	<0.0005

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.009 g/mL

QA:KSL Rev.110101DN

(over)

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Paul K. Haines
Quality Assurance Manager

EXPIRES
1 SEP 2003

Certificate of Analysis

010743

CUSTOM-GRADE SOLUTION

1000 µg/mL Palladium in 3.3% HCl (abs)

Catalog Number: CGPD1-1 and CGPD1-5

Lot Number: **T-PD02014**

Starting Material:	Palladium Nitrate
Starting Material Purity:	99.999%
Starting Material Lot No:	00614

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 2/28/03
DATE EXPIRED: 3/01/2004
DATE OPENED: 2/28/03
INORG: 3964 PO: F52064

CERTIFIED CONCENTRATION: 1001 ± 3 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 1002 µg/mL
Method: Calculated, based on starting material.

Instrument Analysis: 1001 ± 3 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3138.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Al	<0.00090	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	0.0017	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.060	M	Eu	<0.00030	M	Mg	0.0090	O	Rh	<0.020	M	Tl	0.00010
M	Ba	<0.0010	M	Gd	<0.00010	M	Mn	<0.00040	M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	M	Ga	0.00026	O	Hg	<0.030	O	Ru	<0.010	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	0.0058	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
M	B	<0.0070	M	Au	0.00090	M	Nd	0.00090	M	Sc	<0.0010	M	Ti	<0.0050
O	Cd	<0.010	M	Hf	<0.00020	O	Ni	<0.050	O	Se	<0.40	M	W	<0.0010
O	Ca	0.040	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.020	M	U	<0.00020
M	Ce	<0.00050	O	In	<0.030	n	Os		O	Ag	0.26	O	V	<0.010
i	Cs		M	Ir	<0.00050	s	Pd		O	Na	<0.090	M	Yb	<0.00010
O	Cr	<0.020	O	Fe	<0.050	O	P	<0.050	M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	0.016	n	S		M	Zn	0.0030
M	Cu	0.0023	M	Pb	0.0022	n	K		M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.022 g/mL

QA:KSL Rev.050202DN

(over)

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Paul R. Haines
Quality Assurance Manager

EXPIRES
1 MAR 2004

Certificate of Analysis

010741

CUSTOM-GRADE SOLUTION 1000 µg/mL Sulfur in H_2O

Catalog Number: CGS1-1, CGS1-2, and CGS1-5

Lot Number: **T-S01058**

Starting Material:	H_2SO_4
Starting Material Purity:	99.999%
Starting Material Lot No:	N38818

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 10/22/02
DATE EXPIRED: 11/01/2003
DATE OPENED: 10/23/02
INORG: 3739 PO: F52057

CERTIFIED CONCENTRATION: 1000 ± 2 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 1000 ± 2 µg/mL
Method: Acidimetric Titration vs NIST SRM KHP 84k.

Instrument Analysis: 1003 ± 4 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3154.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.0030	M	Dy	<0.012	O	Li	<0.00016	M	Pr	<0.00060	M	Te	<0.060
M	Sb	<0.0010	M	Er	<0.010	M	Lu	<0.00080	M	Re	<0.0020	M	Tb	<0.00060
M	As	<0.020	M	Eu	<0.0060	O	Mg	<0.000040	M	Rh	<0.0020	M	Tl	<0.0020
M	Ba	<0.020	M	Gd	<0.0020	M	Mn	<0.0080	M	Rb	<0.0020	M	Th	<0.0020
O	Be	<0.0020	M	Ga	<0.0020	O	Hg	<0.011	M	Ru	<0.0040	M	Tm	<0.00080
M	Bi	<0.00080	M	Ge	<0.012	M	Mo	<0.0040	M	Sm	<0.0020	M	Sn	<0.010
O	B	<0.010	M	Au	<0.0060	M	Nd	<0.0040	M	Sc	<0.020	M	Ti	<0.10
M	Cd	<0.0060	M	Hf	<0.0040	O	Ni	<0.0023	O	Se	<0.0062	M	W	<0.020
O	Ca	<0.0037	M	Ho	<0.0010	M	Nb	<0.0010	O	Si	<0.0041	M	U	<0.0040
M	Ce	<0.010	M	In	<0.020	n	Os		M	Ag	<0.0040	M	V	<0.0040
M	Cs	<0.00060	M	Ir	<0.010	M	Pd	<0.010	O	Na	<0.00010	M	Yb	<0.0020
M	Cr	<0.010	O	Fe	<0.0011	O	P	<0.0048	M	Sr	<0.0010	M	Y	<0.080
M	Co	<0.0060	M	La	<0.0010	M	Pt	<0.0040	s	S		O	Zn	0.0019
M	Cu	<0.012	M	Pb	<0.0060	O	K	<0.0017	M	Ta	<0.014	M	Zr	<0.010

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 0.999 g/mL (over)

QA-KI

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Paul R. Haines
Quality Assurance Manager

EXPIRES 1/2003

Certificate of Analysis

CUSTOM-GRADE SOLUTION

1000 µg/mL Thorium in 3% HNO_3 (abs)

010745

Catalog Number: CGTH1-1 and CGTH1-5

Lot Number: **T-TH01059**

Starting Material:	Thorium Nitrate
Starting Material Purity:	99.999%
Starting Material Lot No:	C01L32

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 9/4/02
DATE EXPIRED: 10/1/2003 DR
DATE OPENED: 9/4/02
INORG: 3681 PO: F52048

CERTIFIED CONCENTRATION: 1001 ± 3 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 1001 ± 3 µg/mL
Method: EDTA Titration vs NIST SRM Lead Nitrate.

Instrument Analysis: 1002 ± 4 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3159.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	<0.00090	M	Dy	0.0062	O	Li	<0.000030	M	Pr	0.00037	O	Te	<0.031
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
O	As	<0.014	M	Eu	<0.00030	O	Mg	<0.000060	M	Rh	<0.00010	M	Tl	<0.00010
M	Ba	0.0050	M	Gd	0.0054	O	Mn	<0.0000030	M	Rb	<0.00010	s	Th	
O	Be	<0.00020	M	Ga	<0.00010	i	Hg		M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	0.0095	M	Sn	<0.00050
O	B	<0.00060	M	Au	<0.00030	M	Nd	0.0026	M	Sc	<0.0010	O	Ti	<0.00092
O	Cd	<0.0045	M	Hf	<0.00020	O	Ni	<0.0023	M	Se	<0.010	M	W	<0.0010
O	Ca	<0.030	M	Ho	0.00022	M	Nb	<0.000050	O	Si	<0.0034	M	U	0.074
M	Ce	<0.00050	O	In	<0.0020	n	Os		M	Ag	<0.00020	M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	<0.00010	M	Yb	<0.00010
O	Cr	<0.00080	O	Fe	<0.0011	i	P		M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	O	S	<0.072	O	Zn	<0.00058
M	Cu	<0.00060	M	Pb	<0.00030	O	K	<0.0017	M	Ta	<0.00070	M	Zr	0.0085

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.022 g/mL

QA:KL Rev.050802DN

(over)

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Paul R. Haines
Quality Assurance Manager

EXPIRES 1 OCT 2003

Certificate of Analysis

010746

CUSTOM-GRADE SOLUTION

1000 µg/mL Uranium in 1% HNO_3 (abs)

Catalog Number: CGU1-1 and CGU1-5

Lot Number: **S-U01055**

Starting Material:	Uranium Oxynitrate*	6/19/02
Starting Material Purity:	99.95%	7/01/2003
Starting Material Lot No:	E14L40	6/19/02
		3501 F51941

CERTIFIED CONCENTRATION: 998 ± 2 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Instrument Analysis: 998 ± 2 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3164.

Calculated Value: 1000 µg/mL (For informational purposes)
Method: Calculated, based on starting material.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.20	M	Dy	<0.0060	O	Li	<0.010	M	Pr	<0.00030	M	Te	<0.030
M	Sb	0.00020	M	Er	<0.0050	M	Lu	<0.00040	M	Re	<0.0010	M	Tb	<0.00030
M	As	<0.010	M	Eu	<0.0030	O	Mg	0.012	M	Rh	<0.0010	M	Tl	<0.0010
M	Ba	0.0022	M	Gd	<0.0010	M	Mn	<0.0040	M	Rb	<0.0010	M	Th	<0.0010
O	Be	<0.10	M	Ga	<0.0010	O	Hg	i	M	Ru	<0.0020	M	Tm	<0.00040
M	Bi	0.00030	M	Ge	<0.0060	M	Mo	<0.0020	M	Sm	<0.0010	M	Sn	0.043
O	B	0.0020	M	Au	<0.0030	M	Nd	<0.0020	M	Sc	0.00080	M	Ti	0.029
M	Cd	<0.0030	M	Hf	<0.0020	O	Ni	i	M	Se	<0.0080	M	W	<0.010
O	Ca	0.11	M	Ho	<0.00050	M	Nb	<0.00050	O	Si	i	s	U	
M	Ce	<0.0050	M	In	<0.010	n	Os		M	Ag	<0.0020	M	V	0.00040
M	Cs	<0.00030	M	Ir	<0.0050	M	Pd	<0.0050	O	Na	0.19	M	Yb	<0.0010
M	Cr	0.0047	O	Fe	i	O	P	i	M	Sr	0.0011	M	Y	0.56
M	Co	0.014	M	La	0.0014	M	Pt	<0.0020	O	S	i	M	Zn	0.020
M	Cu	0.022	M	Pb	0.0025	O	K	i	M	Ta	<0.0070	M	Zr	0.00060

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

****NOTICE TO ICP-MS USERS:** The ^{235}U in this standard is depleted. The certified abundances in Atom % are as follows:

	Isotope	Natural Abundance Atom %	IV's Certified Abundance Atom %
Uranium	^{238}U	99.3	99.8 ± 0.1
	^{235}U	0.70	0.195 ± 0.005

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.007 g/mL **(over)** QA:KSL Rev.111601DN

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Paul R. Haines
Quality Assurance Manager

EXPIRES 1/2/2003

Certificate of Analysis

010747

CUSTOM-GRADE SOLUTION 1000 µg/mL Tungsten in 0.1% HNO_3 (abs)/1% HF (abs)

Catalog Number: CGW1-1, CGW1-2, and CGW1-5

This standard should **not** be prepared or stored in glass.

Lot Number: **T-W01078**

Starting Material:	Tungsten Metal	7/12/02
Starting Material Purity:	99.999%	8/01/2003
Starting Material Lot No:	E03K06	7/15/02
	3568	F51959

CERTIFIED CONCENTRATION: 1003 ± 4 µg/mL

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

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ Uncertainty $(\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 1000 µg/mL
Method: Calculated, based on starting material.

Instrument Analysis: 1003 ± 4 µg/mL (Average of 2 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3163.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	0.030	M	Dy	<0.00060	O	Li	<0.000030	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.020	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	O	Mg	0.0010	M	Rh	<0.0010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	M	Mn	<0.00040	M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	M	Ga	<0.00010	i	Hg		M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
M	B	<0.0070	M	Au	<0.00030	M	Nd	<0.00020	M	Sc	<0.0040	M	Ti	<0.0050
M	Cd	<0.00030	M	Hf	0.00037	O	Ni	<0.10	M	Se	<0.010	s	W	
O	Ca	0.00086	M	Ho	<0.000050	M	Nb	≤0.00080	n	Si		M	U	<0.00020
M	Ce	<0.00050	M	In	<0.0010	n	Os		M	Ag	<0.00020	M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	0.047	M	Yb	<0.00010
M	Cr	<0.00050	i	Fe		i	P		M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	n	S		M	Zn	0.031
M	Cu	<0.00060	M	Pb	<0.00030	O	K	0.028	M	Ta	<0.010	M	Zr	0.0026

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.006 g/mL

(over)

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Paul R. Haines
Quality Assurance Manager

EXPIRES
1 Dec 2003

Certificate of Analysis

010748

CUSTOM-GRADE SOLUTION

1000 µg/mL **Yttrium** in 1.4% HNO_3 (abs)

Catalog Number: CGY1-1 and CGY1-5

Lot Number: **T-Y01085**

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 08/23/02
DATE EXPIRED: 09/01/2003
DATE OPENED: 08/26/02
INORG: 3654 PO: F52042

Starting Material:	Y_2O_3
Starting Material Purity:	99.999%
Starting Material Lot No:	Y-O-5-9503201

CERTIFIED CONCENTRATION: 999 ± 2 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 999 ± 2 µg/mL
Method: EDTA Titration vs NIST SRM 928 Lead Nitrate.

Instrument Analysis: 996 ± 3 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3167a.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	0.00021	M	Dy	<0.0060	M	Li	<0.010	M	Pr	<0.00030	M	Te	<0.030
M	Sb	<0.00050	M	Er	<0.0050	O	Lu	<0.000020	M	Re	<0.0010	M	Tb	<0.00030
M	As	<0.010	M	Eu	<0.0030	O	Mg	<0.000030	M	Rh	<0.0010	M	Tl	<0.0010
M	Ba	<0.010	M	Gd	<0.0010	O	Mn	<0.000020	M	Rb	<0.0010	M	Th	<0.0010
M	Be	<0.00050	M	Ga	<0.0010	O	Hg	<0.020	M	Ru	<0.0020	M	Tm	<0.00040
M	Bi	<0.00040	M	Ge	<0.0060	M	Mo	<0.0020	M	Sm	<0.0010	M	Sn	<0.0050
O	B	<0.00014	M	Au	<0.0030	M	Nd	<0.0020	O	Sc	0.00024	M	Ti	<0.050
M	Cd	<0.0030	M	Hf	<0.0020	M	Ni	<0.080	M	Se	<0.0080	M	W	<0.010
O	Ca	0.00014	M	Ho	<0.00050	M	Nb	<0.00050	O	Si	0.000077	M	U	<0.0020
M	Ce	<0.0050	M	In	<0.010	n	Os		M	Ag	<0.0020	O	V	<0.00080
M	Cs	<0.00030	M	Ir	<0.0050	O	Pd	<0.10	O	Na	<0.050	M	Yb	<0.0010
M	Cr	<0.0050	O	Fe	0.0015	O	P	<0.070	M	Sr	<0.00050	s	Y	
M	Co	<0.0030	M	La	<0.00050	M	Pt	<0.0020	O	S	<0.043	M	Zn	<0.020
M	Cu	<0.0060	M	Pb	<0.0030	O	K	<0.10	M	Ta	<0.0070	O	Zr	<0.00070

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.010 g/mL

(over)

QA:JF Rev.041502DN

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Paul R. Haines
Quality Assurance Manager

EXPIRES
1 SEP 2003

Certificate of Analysis

CUSTOM-GRADE SOLUTION

1000 µg/mL Zirconium in H_2O tr. HF tr. HNO_3

010749

Catalog Number: CGZR1-1 and CGZR1-5
This standard should **not** be prepared or stored in glass.

Lot Number: **T-QZR01062**

Starting Material:	Zirconium Metal
Starting Material Purity:	99.999%
Starting Material Lot No:	SP4811A

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 02/13/03
DATE EXPIRED: 03/01/2004
DATE OPENED: 02/13/03
INORG: 3958 PO: F52060

CERTIFIED CONCENTRATION: 1005 ± 6 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Instrument Analysis: 1005 ± 6 µg/mL (Average of 2 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3169

Calculated Value: 1000 µg/mL (For informational purposes)
Method: Calculated based on starting material.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**.
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	0.055	M	Dy	<0.012	O	Li	<0.000030	M	Pr	<0.00059	M	Te	<0.059
M	Sb	0.00017	M	Er	<0.0098	M	Lu	<0.00079	M	Re	<0.0020	M	Tb	<0.00059
M	As	<0.020	M	Eu	<0.0059	O	Mg	<0.000030	M	Rh	<0.0020	M	Tl	<0.0020
M	Ba	0.013	M	Gd	<0.0020	O	Mn	0.0020	M	Rb	<0.0020	M	Th	<0.0020
O	Be	<0.10	M	Ga	<0.0020	O	Hg	<0.011	M	Ru	<0.0040	M	Tm	<0.00079
M	Bi	<0.00079	M	Ge	<0.012	O	Mo	<0.10	M	Sm	<0.0020	M	Sn	0.0011
i	B		M	Au	<0.0059	M	Nd	<0.0040	O	Sc	<0.00016	O	Ti	0.0031
O	Cd	<0.0053	M	Hf	0.087	O	Ni	0.014	M	Se	<0.016	M	W	0.0016
O	Ca	0.0020	M	Ho	<0.00098	i	Nb		i	Si		M	U	0.00040
M	Ce	<0.0098	M	In	<0.020	n	Os		i	Ag		M	V	0.0016
M	Cs	<0.00059	M	Ir	<0.0098	i	Pd		O	Na	0.041	M	Yb	<0.0020
O	Cr	0.034	O	Fe	0.45	O	P	<0.0048	M	Sr	<0.00098	O	Y	<0.0010
M	Co	<0.0059	M	La	<0.00098	M	Pt	<0.0040	i	S		O	Zn	0.0057
M	Cu	0.013	M	Pb	<0.0059	O	K	0.013	M	Ta	0.0011	s	Zr	

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.000 g/mL

QA:KL Rev.100302DN

(over)

Paul R. Haines

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Quality Assurance Manager

EXPIRES 1 MAR 2004

Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Silver in 3.5% HNO_3 (abs)

010750

Catalog Number: CGAG1-1, CGAG1-2 and CGAG1-5

Lot Number: **T-AG02013**

Starting Material:	Silver Metal
Starting Material Purity:	99.999%
Starting Material Lot No:	F15102

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 08/23/02
DATE EXPIRED: 09/01/2003
DATE OPENED: 08/26/02
INORG: 3653 PO: F52042

CERTIFIED CONCENTRATION: 996 ± 3 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 998 ± 3 µg/mL
Method: Volhard Titration vs NIST SRM 999a Potassium Chloride

Instrument Analysis: 996 ± 3 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3151.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Al	<0.0009	M	Dy	<0.0006	M	Li	<0.001	M	Pr	<0.00003	M	Te	<0.003
M	Sb	0.0006	M	Er	<0.0005	M	Lu	<0.00004	M	Re	<0.0001	M	Tb	0.00003
M	As	<0.001	M	Eu	<0.0003	M	Mg	<0.003	n	Rh		M	Tl	<0.0001
M	Ba	<0.001	M	Gd	<0.0001	M	Mn	<0.0004	M	Rb	<0.0001	M	Th	<0.0001
M	Be	<0.00005	M	Ga	<0.0001	O	Hg	<0.02	n	Ru		M	Tm	<0.00004
M	Bi	0.0007	M	Ge	0.001	M	Mo	<0.0002	M	Sm	<0.0001	M	Sn	<0.0005
M	B	<0.007	M	Au	<0.0003	M	Nd	<0.0002	M	Sc	<0.001	M	Ti	<0.005
O	Cd	<0.01	M	Hf	<0.0002	O	Ni	<0.05	O	Se	<0.4	M	W	<0.001
O	Ca	<0.01	M	Ho	<0.00005	M	Nb	<0.00005	O	Si	<0.02	M	U	<0.0002
M	Ce	<0.0005	O	In	<0.03	n	Os		s	Ag		M	V	<0.0002
M	Cs	<0.00003	M	Ir	<0.0005	n	Pd		O	Na	<0.09	M	Yb	<0.0001
M	Cr	<0.002	O	Fe	<0.05	O	P	<0.05	M	Sr	<0.00005	M	Y	<0.004
M	Co	<0.0003	M	La	<0.00005	M	Pt	<0.0002	n	S		M	Zn	0.006
M	Cu	<0.0006	M	Pb	<0.0003	n	K		M	Ta	<0.0007	M	Zr	<0.0005

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.025 g/mL (over)

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Paul R. Haines
Quality Assurance Manager

EXPIRES
1 SEP 2003

Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Arsenic in 1.4% HNO_3 (abs)

Catalog Number: CGAS1-1, CGAS1-2 and CGAS1-5

010751

Lot Number: **T-AS02019**

Starting Material:	Arsenic Metal
Starting Material Purity:	99.999%
Starting Material Lot No:	23014

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 01/09/03
DATE EXPIRED: 02/04/2004 DR
DATE OPENED: 01/10/03
INORG: 3899 PO: F52071

CERTIFIED CONCENTRATION: 1006 ± 3 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 1003 µg/mL
Method: Calculated, based on starting material.

Instrument Analysis: 1006 ± 3 µg/mL (Average of 3 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3103a.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**.
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm .

O	Al	0.00030	M	Dy	<0.012	O	Li	<0.000020	M	Pr	<0.00060	M	Te	<0.060
O	Sb	<0.010	M	Er	<0.010	M	Lu	<0.00080	O	Re	<0.010	M	Tb	<0.00060
s	As		M	Eu	<0.0060	O	Mg	<0.000030	M	Rh	<0.0020	M	Tl	<0.0020
M	Ba	<0.020	M	Gd	<0.0020	O	Mn	<0.000030	M	Rb	<0.0020	M	Th	<0.0020
M	Be	<0.0010	M	Ga	<0.0020	O	Hg	<0.012	M	Ru	<0.0040	M	Tm	<0.00080
M	Bi	<0.00080	M	Ge	<0.012	M	Mo	<0.0040	M	Sm	<0.0020	O	Sn	0.00053
O	B	<0.012	M	Au	<0.0060	M	Nd	<0.0040	M	Sc	<0.020	M	Ti	<0.10
M	Cd	<0.0060	M	Hf	<0.0040	M	Ni	<0.016	M	Se	<0.016	M	W	<0.020
O	Ca	<0.0015	M	Ho	<0.0010	O	Nb	<0.0020	O	Si	0.0077	M	U	<0.0040
M	Ce	<0.010	M	In	<0.020	n	Os		M	Ag	<0.0040	M	V	<0.0040
M	Cs	<0.00060	M	Ir	<0.010	M	Pd	<0.010	O	Na	0.00096	M	Yb	<0.0020
M	Cr	<0.010	O	Fe	<0.0011	O	P	<0.0026	M	Sr	<0.0010	M	Y	<0.080
M	Co	<0.0060	M	La	<0.0010	M	Pt	<0.0040	O	S	<0.025	O	Zn	0.00019
M	Cu	<0.012	M	Pb	<0.0060	O	K	0.00096	M	Ta	<0.014	M	Zr	<0.010

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.010 g/mL

QA:KSL Rev.061202DN

(over)

Paul R Haines
Quality Assurance Manager

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EXPIRES
1 FEB 2004

Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Lead in 0.35% HNO_3 (abs)

010752

Catalog Number: CGPB1-1, CGPB1-2 and CGPB1-5

Lot Number: **T-PB02110**

Starting Material:	Lead Nitrate
Starting Material Purity:	99.995%
Starting Material Lot No:	22150

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 10/22/02
DATE EXPIRED: 11/01/2003
DATE OPENED: 10/23/02
INORG: 3735 PO: F52057

CERTIFIED CONCENTRATION: 1004 ± 2 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 1004 ± 2 µg/mL
Method: EDTA Titration vs NIST SRM 928 Lead Nitrate.

Instrument Analysis: 995 ± 8 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3128.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.040	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	M	Mg	<0.0030	M	Rh	<0.020	M	Tl	<0.0050
M	Ba	<0.0010	M	Gd	<0.00010	M	Mn	<0.00040	M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	M	Ga	<0.00010	O	Hg	<0.090	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.0010	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
O	B	<0.020	M	Au	<0.00030	M	Nd	<0.00020	M	Sc	<0.0010	M	Ti	<0.0050
M	Cd	<0.00030	M	Hf	<0.00020	O	Ni	<0.050	O	Se	<0.40	M	W	<0.0010
O	Ca	<0.010	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.020	M	U	<0.00020
M	Ce	<0.00050	O	In	<0.030	n	Os		i	Na		M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	<0.00050	M	Sr	0.00034	M	Yb	<0.00010
M	Cr	<0.00050	O	Fe	<0.050	O	P	<0.050	n	S		M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	M	Ta	<0.00070	M	Zn	<0.0020
M	Cu	<0.00060	s	Pb		n	K					M	Zr	0.00120

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.002 g/mL

(over)

QA:KSL Rev.061702JTB

Paul R. Haines
Quality Assurance Manager

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Technical Support: 800-569-6799

EXPIRES
1 NOV 2003

Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Antimony in 0.7% HNO_3 (abs) / 3% Tartaric Acid

Catalog Number: CGSB1-1, CGSB1-2 and CGSB1-5

010753

Lot Number: **T-SB02074**

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 02/13/03
DATE EXPIRED: 03/01/2004
DATE OPENED: 02/13/03
INORG: 3953 PO: F52060

Starting Material:	Antimony Metal
Starting Material Purity:	99.995%
Starting Material Lot No:	E14H25

CERTIFIED CONCENTRATION: 1003 ± 2 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 999 µg/mL
Method: Calculated, based on starting material.

Instrument Analysis: 1003 ± 2 µg/mL (Average of 2 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3102a.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Al	<0.0050	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	n	Te	
s	Sb		M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	M	Mg	<0.0030	M	Rh	<0.00010	M	Tl	0.00030
O	Ba	<0.020	M	Gd	<0.00010	M	Mn	0.0080	M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	M	Ga	<0.00010	O	Hg	<0.030	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	0.00070	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	n	Sn	
M	B	<0.0070	M	Au	<0.00030	M	Nd	<0.00020	M	Sc	<0.0010	M	Ti	<0.0050
M	Cd	<0.00030	M	Hf	<0.00020	O	Ni	<0.050	O	Se	<0.40	M	W	<0.0010
O	Ca	<0.020	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.020	M	U	<0.00020
M	Ce	0.0018	O	In	<0.030	n	Os		M	Ag	<0.00020	M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	<0.090	M	Yb	<0.00010
M	Cr	0.031	O	Fe	<0.050	O	P	<0.050	M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.040	M	Pt	<0.00020	n	S		M	Zn	<0.0020
M	Cu	0.0016	M	Pb	0.0011	n	K		M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.019 g/mL

(over)

QA:KL Rev.082202DN

Paul R. Haines

Quality Assurance Manager

Expires:

Inorganic Ventures, Inc.
195 Lehigh Avenue • Suite 4 • Lakewood, NJ 08701
Orders: 800-669-6799 • FAX (732) 901-1903
Technical Support: 800-569-6799

EXPIRES 1 MAR 2004

Certificate of Analysis

010754

CUSTOM-GRADE SOLUTION 1000 µg/mL Selenium in 1.4% HNO_3 (abs)

Catalog Number: CGSE1-1, CGSE1-2 and CGSE1-5

Lot Number: **T-SE01098**

Starting Material:	Selenium Metal
Starting Material Purity:	99.998%
Starting Material Lot No:	A09C08

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 08/23/02
DATE EXPIRED: 09/01/2003
DATE OPENED: 08/26/02
INORG: 3652 PO: F52042

CERTIFIED CONCENTRATION: 996 ± 4 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 1005 µg/mL
Method: Calculated, based on starting material.

Instrument Analysis: 996 ± 4 µg/mL (Average of 2 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3149.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.04	M	Dy	<0.0006	M	Li	<0.001	M	Pr	<0.00003	M	Te	<0.003
M	Sb	<0.00005	M	Er	<0.0005	M	Lu	<0.00004	M	Re	<0.0001	M	Tb	<0.00003
M	As	0.004	M	Eu	<0.0003	M	Mg	<0.003	M	Rh	<0.0001	M	Tl	<0.0001
M	Ba	<0.001	M	Gd	<0.0001	M	Mn	0.0008	M	Rb	0.0002	M	Th	<0.0001
M	Be	<0.00005	M	Ga	<0.0001	O	Hg	<0.02	M	Ru	<0.0002	M	Tm	<0.00004
M	Bi	<0.00004	M	Ge	<0.0006	M	Mo	0.0024	M	Sm	<0.0001	M	Sn	<0.0005
M	B	<0.007	M	Au	<0.0003	M	Nd	<0.0002	M	Sc	<0.001	M	Ti	<0.005
M	Cd	<0.0003	M	Hf	<0.0002	O	Ni	<0.05	s	Se		M	W	0.0042
O	Ca	<0.01	M	Ho	<0.00005	M	Nb	<0.03	O	Si	<0.02	M	U	<0.0002
M	Ce	<0.0005	M	In	<0.0001	n	Os		M	Ag	<0.0002	M	V	0.0012
M	Cs	<0.00003	M	Ir	<0.0005	M	Pd	<0.0005	O	Na	<0.09	M	Yb	<0.0001
M	Cr	<0.0005	O	Fe	<0.05	O	P	<0.05	M	Sr	<0.00005	M	Y	<0.004
M	Co	<0.0003	M	La	<0.00005	M	Pt	<0.0002	n	S		M	Zn	0.0032
M	Cu	0.0035	M	Pb	<0.0003	M	K	<0.02	M	Ta	<0.0007	M	Zr	<0.004

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.009 g/mL

QA:KSL Rev.032502DN

(over)

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Paul R. Haines
Quality Assurance Manager

EXPIRES 1 Sep 2003

Certificate of Analysis

010755

CUSTOM-GRADE SOLUTION 1000 µg/mL Thallium in 0.5% HNO_3 (abs)

Catalog Number: CGTL1-1, CGTL1-2 and CGTL1-5

Lot Number: **T-TL01075**

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 01/16/03
DATE EXPIRED: 02/01/2004
DATE OPENED: 01/16/03
INORG: 3922 PO: F52073

Starting Material:	Thallium Nitrate
Starting Material Purity:	99.999%
Starting Material Lot No:	59001

CERTIFIED CONCENTRATION: 997 ± 1 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 1000 µg/mL
Method: Calculated, based on starting material.

Instrument Analysis: 997 ± 1 µg/mL (Average of 2 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3158.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.040	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	0.000080	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	M	Mg	<0.0030	M	Rh	<0.00010	s	Tl	
M	Ba	<0.0010	M	Gd	<0.00010	M	Mn	<0.00040	M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	M	Ga	<0.00010	O	Hg	i	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	0.00060
O	B	<0.020	M	Au	<0.00030	M	Nd	<0.00020	M	Sc	<0.0010	M	Ti	<0.0050
M	Cd	0.00090	M	Hf	0.0010	O	Ni	<0.050	O	Se	<0.40	M	W	<0.0010
O	Ca	<0.010	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.020	M	U	<0.00020
M	Ce	<0.00050	O	In	i	n	Os		M	Ag	<0.00020	M	V	<0.00020
M	Cs	0.00010	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	<0.090	M	Yb	<0.00010
M	Cr	<0.00050	O	Fe	<0.050	O	P	i	M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	n	S		M	Zn	0.015
M	Cu	<0.00060	M	Pb	<0.00030	n	K		M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.002 g/mL

QA:KL Rev.031402DN

(over)

Paul R. Haines

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Quality Assurance Manager

EXPIRES 1 FEB 2004

Certificate of Analysis

CUSTOM GRADE SOLUTION 1000 µg/mL Boron in H_2O

Catalog Number: CGB1-1, CGB1-2 and CGB1-5

010756

Lot Number: **T-B02038**

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 02/13/03
DATE EXPIRED: 03/01/2004
DATE OPENED: 02/13/03
INORG: 3954 PO: F52060

Starting Material:	H_3BO_3
Starting Material Purity:	99.999%
Starting Material Lot No:	S-B02032

CERTIFIED CONCENTRATION: 1001 ± 3 µg/mL

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

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ Uncertainty $(\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Instrument Analysis: 1001 ± 3 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3107.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.00090	M	Dy	<0.0060	O	Li	<0.000024	M	Pr	<0.00030	M	Te	<0.030
M	Sb	<0.00050	M	Er	<0.0050	M	Lu	<0.00040	M	Re	<0.0010	M	Tb	<0.00030
M	As	<0.010	M	Eu	<0.0030	O	Mg	<0.000060	M	Rh	<0.0010	M	Tl	<0.0010
O	Ba	<0.00010	M	Gd	<0.0010	O	Mn	<0.000023	M	Rb	<0.0010	M	Th	<0.0010
O	Be	<0.00017	O	Ga	<0.0016	O	Hg	<0.015	M	Ru	<0.0020	M	Tm	<0.00040
M	Bi	<0.00040	M	Ge	<0.0060	M	Mo	<0.0020	M	Sm	<0.0010	M	Sn	<0.0050
s	B		M	Au	<0.0030	M	Nd	<0.0020	O	Sc	<0.000023	M	Ti	<0.050
M	Cd	<0.0030	M	Hf	<0.0020	O	Ni	<0.0023	O	Se	<0.0062	M	W	<0.010
O	Ca	<0.000070	M	Ho	<0.00050	M	Nb	<0.00050	O	Si	0.00067	M	U	<0.0020
O	Ce	<0.0030	M	In	<0.010	n	Os		M	Ag	<0.0020	O	V	<0.00083
M	Cs	<0.00030	M	Ir	<0.0050	M	Pd	<0.0050	O	Na	<0.00010	M	Yb	<0.0010
M	Cr	<0.0050	O	Fe	<0.0011	O	P	<0.0025	M	Sr	<0.00050	M	Y	<0.040
O	Co	<0.0011	M	La	<0.00050	M	Pt	<0.0020	O	S	<0.10	O	Zn	<0.00019
M	Cu	<0.0060	M	Pb	<0.0030	O	K	<0.0030	M	Ta	<0.0070	M	Zr	<0.0050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 0.999 g/mL

QA:KL Rev.073102DN

(over)

Paul R. Haines

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Technical Support: 800-569-6799

Quality Assurance Manager

EXPIRES
1 MAR 2004

010757

INORGANIC LABS/PADCHEM LABS
DATE RECEIVED: 02/13/03
DATE EXPIRED: 03/01/2004
DATE OPENED: 02/13/03
INORG: 3956 PO: F52060

Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Molybdenum in H_2O tr. NH_4OH

Catalog Number: CGMO1-1, CGMO1-2 and CGMO1-5

Lot Number: **T-MO01130**

Starting Material:	Ammonium Molybdenum Oxide
Starting Material Purity:	99.9943%
Starting Material Lot No:	21410

CERTIFIED CONCENTRATION: 997 ± 3 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 1000 µg/mL
Method: Calculated, based on starting material.

Instrument Analysis: 997 ± 3 µg/mL (Average of 2 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3134.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.050	M	Dy	<0.012	O	Li	<0.010	O	Pr	<0.10	i	Te	
M	Sb	0.0094	M	Er	<0.010	M	Lu	<0.00080	M	Re	<0.0020	M	Tb	<0.00060
M	As	<0.020	M	Eu	<0.0060	O	Mg	<0.050	M	Rh	<0.0020	M	Tl	<0.0020
M	Ba	<0.020	M	Gd	<0.0020	M	Mn	<0.0080	M	Rb	0.025	M	Th	<0.0020
M	Be	<0.0010	M	Ga	<0.0020	i	Hg		M	Ru	<0.0040	M	Tm	<0.00080
M	Bi	<0.00080	M	Ge	<0.012	s	Mo		M	Sm	<0.0020	M	Sn	<0.010
O	B	<0.50	M	Au	<0.0060	O	Nd	<0.050	O	Sc	<0.050	O	Ti	<0.0050
O	Cd	<0.50	M	Hf	<0.0040	M	Ni	<0.016	M	Se	<0.016	M	W	0.056*
O	Ca	0.00026	M	Ho	<0.0010	O	Nb	<0.10	O	Si	<0.10	M	U	<0.0040
O	Ce	<0.050	M	In	0.0024	n	Os		M	Ag	<0.0040	M	V	<0.0040
M	Cs	<0.00060	M	Ir	<0.010	M	Pd	<0.010	O	Na	<0.10	M	Yb	<0.0020
M	Cr	<0.010	O	Fe	<0.50	i	P		M	Sr	<0.0010	M	Y	<0.080
M	Co	<0.0060	M	La	<0.0010	M	Pt	<0.0040	i	S		M	Zn	<0.040
M	Cu	<0.012	M	Pb	< 0.0060	O	K	0.0098	M	Ta	<0.014	M	Zr	<0.010

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

* W impurity may be due to Mo doubly charged ion and represents the maximum concentration possible.

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 0.999 g/mL

(over)

QA:KL Rev.073102DN

Paul R Haines

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Quality Assurance Manager

EXPIRES 1 MAR 2004

010758

Certificate of Analysis

CUSTOM-GRADE SOLUTION 1000 µg/mL Phosphorus in H_2O

Catalog Number: CGP1-1, CGP1-2 and CGP1-5

Lot Number: **T-P01118**

Starting Material:	Phosphoric Acid
Starting Material Purity:	99.999%
Starting Material Lot No:	J18804

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 05/01/03
DATE EXPIRED: 06/01/2004
DATE OPENED: 05/01/03
INORG: 4049 PO: F52180

CERTIFIED CONCENTRATION: 1004 ± 2 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Classical Wet Assay: 1004 ± 2 µg/mL
Method: Acidimetric Titration vs NIST SRM 84k KHP.

Instrument Analysis: 1000 ± 3 µg/mL
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3139a.

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**.
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.040	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	0.012	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	M	Mg	<0.0030	M	Rh	<0.00010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	M	Mn	<0.00040	M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	M	Ga	0.00070	O	Hg	<0.020	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
M	B	<0.0070	M	Au	<0.00030	M	Nd	<0.00020	n	Sc		n	Ti	
M	Cd	<0.00030	M	Hf	<0.00020	O	Ni	<0.050	O	Se	<0.40	M	W	<0.0010
O	Ca	<0.010	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.020	M	U	<0.00020
M	Ce	<0.00050	M	In	<0.030	n	Os		M	Ag	<0.00020	M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	<0.090	M	Yb	<0.00010
M	Cr	<0.00050	O	Fe	<0.050	s	P		M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	n	S		M	Zn	0.0035
M	Cu	0.080	M	Pb	<0.00030	n	K		M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 0.999 g/mL **(over)**

QA:KL Rev.122002DN

Paul R. Haines

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Quality Assurance Manager

EXPIRES
01 DEC 2004

Certificate of Analysis

010759

CUSTOM-GRADE SOLUTION

1000 µg/mL Titanium in 1.4% HNO_3 (abs) tr. HF

Catalog Number: CGTI1-1, CGTI1-2 and CGTI1-5

This standard should **not** be prepared or stored in glass.

Lot Number: **T-TI02039**

Starting Material:	Titanium Metal
Starting Material Purity:	99.999%
Starting Material Lot No:	F29I14

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 11/12/02
DATE EXPIRED: 12/1/2003 JR
DATE OPENED: 11/13/02
INORG: 3762 PO: E52061

CERTIFIED CONCENTRATION: 1010 ± 3 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 1002 µg/mL
Method: Calculated, based on starting material.

Instrument Analysis: 1010 ± 3 µg/mL (Average of 3 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3162a.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.010	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	O	Mg	< 0.020	M	Rh	<0.00010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	M	Mn	0.0020	M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	M	Ga	<0.00010	O	Hg	<0.050	M	Ru	<0.00020	M	Tm	<0.000040
M	Bi	<0.000040	M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
O	B	<0.050	M	Au	<0.00030	M	Nd	<0.00020	O	Sc	<0.0020	s	Ti	
M	Cd	<0.00030	M	Hf	<0.00020	O	Ni	<0.050	O	Se	<0.40	M	W	<0.0010
O	Ca	<0.010	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.010	M	U	<0.00020
M	Ce	<0.00050	O	In	<0.020	n	Os		M	Ag	<0.00020	M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	<0.00050	O	Na	0.12	M	Yb	<0.00010
M	Cr	<0.00050	O	Fe	<0.010	i	P		M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	i	S		M	Zn	0.19
O	Cu	<0.040	M	Pb	<0.00030	n	K	0.23	M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.011 g/mL

QA:KL Rev.060502DN

(over)

Paul R. Haines
Quality Assurance Manager

Inorganic Ventures, Inc.
195 Lehigh Avenue • Suite 4 • Lakewood, NJ 08701
Orders: 800-669-6799 • FAX (732) 901-1903
Technical Support: 800-569-6799

EXPIRES 1 Dec 2003

Certificate of Analysis

010760

CUSTOM-GRADE SOLUTION 1000 µg/mL Strontium in 0.1% HNO_3 (abs)

Catalog Number: CGSR1-1, CGSR1-2 and CGSR1-5

Lot Number: **S-SR01118**

		7/12/02
		8/01/2003
Starting Material:	$SrCO_3$	7/15/02
Starting Material Purity:	99.998%	3566 E51959
Starting Material Lot No:	22593	

CERTIFIED VALUE: 997 µg/mL

The certified value is the average of the classical wet assay and instrument analysis unless otherwise specified. All standards are accurate to a relative precision of ± 0.5% at the 95% confidence level for a period of 1 year. (See expiration date below)

Classical Wet Assay: 997 µg/mL

Method: EDTA Titration vs NIST SRM 928 Lead Nitrate

Sufficient number of sample measurements were made to give a minimum relative precision of ± 0.3% at the 95% confidence level.

Instrument Analysis: 996 µg/mL

Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3153a

Sufficient number of sample measurements were made to give a minimum relative precision of ± 0.5% at the 95% confidence level.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room**.
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Al	<0.0009	M	Dy	<0.0006	M	Li	<0.001	M	Pr	<0.00003	M	Te	<0.003
M	Sb	0.0006	M	Er	<0.0005	M	Lu	<0.00004	M	Re	<0.0001	M	Tb	<0.00003
M	As	<0.001	M	Eu	<0.0003	M	Mg	<0.003	M	Rh	i	M	Tl	0.0001
M	Ba	0.05	M	Gd	<0.0001	M	Mn	<0.0004	n	Rb		M	Th	<0.0001
M	Be	<0.00005	M	Ga	<0.0001	O	Hg	<0.02	M	Ru	<0.0002	M	Tm	<0.00004
M	Bi	0.00038	M	Ge	<0.0006	O	Mo	<0.03	M	Sm	<0.0001	M	Sn	<0.0005
M	B	<0.007	M	Au	<0.0003	M	Nd	<0.0002	M	Sc	<0.001	M	Ti	<0.005
M	Cd	<0.0003	M	Hf	<0.0002	O	Ni	i	O	Se	<0.4	M	W	<0.001
O	Ca	<0.01	M	Ho	<0.00005	n	Nb		O	Si	<0.02	M	U	<0.0002
M	Ce	<0.0005	O	In	<0.03	n	Os		M	Ag	0.0004	M	V	<0.0002
M	Cs	<0.00003	M	Ir	<0.0005	M	Pd	i	O	Na	<0.09	M	Yb	<0.0001
M	Cr	0.0015	O	Fe	<0.05	O	P	i	s	Sr		n	Y	
M	Co	<0.0003	M	La	0.00005	M	Pt	<0.0002	n	S		M	Zn	0.013
O	Cu	<0.04	M	Pb	<0.0003	n	K		n	Ta		n	Zr	

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.000 g/mL

QA:JF Rev.062101KSL

(over)

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Paul R. Haines
Quality Assurance Manager

EXPIRES 1@2003

inorganic ventures / iv labs

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010761

certificate of analysis

1.0 **Inorganic Ventures / IV Labs is an ISO Guide 34-2000 Certified Reference Material (CRM) Manufacturer: Certificate #883-02.** *The certificate is designed and the certified value(s) and uncertainty(ies) are determined in accordance with ISO Guide 31-2000 (Reference Materials - Contents of certificates and label(s), ISO Guide 34-2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35-1989 "Certification of Reference Materials - General and Statisical Principles."*

2.0 **DESCRIPTION OF CRM** Custom-Grade **1000 µg/mL Tin In H_2O tr HNO_3 tr HF**

Catalog Number:	CGSN1-1, CGSN1-2, and CGSN1-5
Lot Number:	**T-SN01110**
Starting Material:	#1, #2 SN SHOT
Starting Material Purity (%):	99.9969
Starting Material Lot No	AAJM H12H17, A23F09
Matrix:	H_2O tr HNO_3 tr HF

INORGANIC LABS/RADCHEM LABS Pg 1 of 2
DATE RECEIVED: 3/26/03
DATE EXPIRED: 4/01/2004
DATE OPENED: 3/28/03
INORG: 4026 PO: F52167

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1003 ± 5 µg/mL

Certified Density: 1.000 g/mL (measured at 22° C)

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

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

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

($\bar{x}$) = mean
x_i = individual results
n = number of measurements
Σs_i = The summation of all significant estimated errors. (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

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

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

☐ This IV product is Traceable to NIST via direct comparison to NIST SRMs. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors.

4.1 **Assay Method #1** **1003 ± 5 µg/mL (Avg 2 runs)**
ICP Assay NIST SRM 3161a Lot Number: 993107

Assay Method #2 **1000 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

4.2 **BALANCE CALIBRATION** - All balances are checked daily using in-house procedure number 6-IMM-001. The weights used for testing are annually compared to Gerhart Scale Corporation's master weights and are traceable to the National Institute of Standards and Technology (NIST). The NIST Traceability numbers are 692476 - Class 1 and 692476A - Class 2. The NIST test number is 822/260017-98. All analytical balances are calibrated every 4 months by Gerhart Scale Corp. of South Amboy. The balances are calibrated with a class 1 and/or class 2 analytical weight set. These weights are tested annually by a NIST / NVLAP accredited calibration lab. The NIST test number is 822/260017-98.

4.3 **THERMOMETER CALIBRATION** - The thermometers used in the determination of the final densities are calibrated vs standard thermometer No. 903-2680 which was certified in accordance with the procedures outlined by ASTM E77-87 and NIST Monograph 150 using NIST Test Nos. and Std Nos.: 769543, 217368/769543, 217368/P14452, 176240/P14452, 176240. The in-house procedure No. is 2-QC-001.Thermometers which are not calibrated vs standard thermometer No. 903-2680 are traceable to NIST Identification Nos. 92564, 119016, 471047 and NIST test report Nos. 811/258522, 811/2557078, and 236090.

4.4 **GLASSWARE CALIBRATION** - In-house procedure 3-QC-002 is used to calibrate all Class A Glassware used in the manufacture and quality control of Custom Grade Standards.

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

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

O Al 0.00100	M Dy < 0.01217	O Li < 0.00002	M Pr < 0.00061	M Te < 0.06087
O Sb < 0.01000	M Er < 0.01014	M Lu < 0.00081	M Re < 0.00203	M Tb < 0.00061
M As < 0.02029	M Eu < 0.00609	O Mg < 0.00003	M Rh < 0.00203	M Tl < 0.00203
O Ba < 0.00070	M Gd < 0.00203	M Mn < 0.00812	M Rb < 0.00203	M Th < 0.00203
M Be < 0.00101	M Ga < 0.00203	O Hg < 0.01500	M Ru < 0.00406	M Tm < 0.00081
M Bi < 0.00081	M Ge < 0.01217	M Mo < 0.00406	M Sm < 0.00203	S Sn
O B < 0.01200	M Au < 0.00609	M Nd < 0.00406	M Sc < 0.02029	M Ti < 0.10144
O Cd < 0.00500	M Hf < 0.00406	O Ni < 0.01000	M Se < 0.01623	M W < 0.02029
O Ca < 0.00150	M Ho < 0.00101	M Nb < 0.00101	O Si 0.02700	M U < 0.00406
M Ce < 0.01014	M In < 0.02029	n Os	M Ag < 0.00406	M V < 0.00406
M Cs < 0.00061	M Ir < 0.01014	M Pd < 0.01014	O Na 0.00325	M Yb < 0.00203
M Cr < 0.01014	O Fe < 0.00110	O P < 0.00500	M Sr < 0.00101	M Y < 0.08115
O Co < 0.00200	M La < 0.00101	M Pt < 0.00406	N S	M Zn < 0.04058
M Cu < 0.01217	M Pb < 0.00609	O K < 0.00200	M Ta < 0.01420	M Zr < 0.01014

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

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

010762

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

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 118.710; +4; 4,5, 6,7,8 $Sn(OH)_xF_y^{z-}$

Chemical Compatibility - Soluble in HCl and dilute HF / HNO_3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F^- away. (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated.) Stable with most inorganic anions provided it is in the chemical form shown above.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the $Sn(OH)_xF_y^{z-}$ for 1 year in 1% HNO_3 / LDPE container. 1-10,000 ppm single element solutions as the $Sn(OH)_xF_y^{z-}$ chemically stable for years in 2-5% HNO_3 / trace HF in a LDPE container.

Sn Containing Samples (Preparation and Solution) - Metal (Soluble in HF /HNO_3 or HCl); Oxides - SnO (soluble in HCl), SnO_2 -very resistant to all acids including HF(Fusion with equal parts of Na_2CO_3 and S. It is then soluble in water or dilute acids as the thiostannate.); Alloys (Treat first 0.1 g with 10 mL conc. H_2SO_4 to boiling until the alloy disintegrates and nearly all of the sulfuric acid is expelled. Then add 100 mL O_2 free water and 50 mL of conc HCl or transfer to a plastic container and add 1 mL HF in either case warming gently to bring about solution.); Organic Matrices (Volatility and precipitation of the insoluble stannic oxide are problems. Consultation of the literature should be made for individual matrices / Sn compounds.)

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

Technique/Line		Estimated D.L.	Order	Type	Interferences (underlined indicates severe at ≤ppm concs.)
ICP-OES	189.989 nm	0.03 / 0.003 µg/mL	1	ion	
ICP-OES	242.949 nm	0.1 / 0.01 µg/mL	1	atom	W, Mo, Rh, Ta, Co
ICP-MS	120 amu	5 ppt	n/a	M⁺	^{240}Te, $^{104}Ru^{16}O$, $^{104}Pd^{16}O$

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001:2000 Quality Management System Registration - QMI Certificate Number 010105
Recognized by:
Registrar Accreditation Board (ANSI-RAB)
Standards Council of Canada (SCC)
Dutch Council for Accreditation (RVA)
Entidad Mexicana de Acreditacion, a.c.(EMA)
Members of IQ Net International Certification Network:
Argentina (IRAM), Australia (QAS), Austria (ÖQS), Belgium (Avinter) , Brazil (FCAV), Canada (QMI), Hong Kong (HKQAA), Columbia (ICONTEC), Czech Republic (CQS), Denmark (DS), Finland (SFS), France (AFAQ), Germany (DQS), Greece (ELOT), Hungary (MSZT), Ireland (NSAI), Israel (SII), Italy (CISQ), Japan (JQA), Korea (KSA-QA), Netherlands (KEMA), Norway (NCS), Poland(PCBC), Portugal (APCER), Singapore (PSB), Slovenia (SIQ), Spain (AENOR), Switzerland (SQS)

10.2 ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 - 2000 "General Requirements for the Competence of Reference Material Producers" - Reference Materials Production - Accredited A2LA Certificate Number 883.02
A2LA Mutual Recognition Agreement Partners:
Australia (NATA), Austria (BmwA), Belgium (BELTEST) (BKO-OBE), Canada (SCC), Chinese Taipei (CNLA), Czech Republic (NAO), Denmark (DANAK), Finland (FINAS), France (COFRAC), Germany (DAR), Hong Kong (HKAS, Ireland (NAB), Italy (SIT) (SINAL), Japan (JAB) (JNLA), Republic of Korea (KOLAS), The Netherlands (RvA), New Zealand (IANZ), Norway (NA), Portugal (IPQ), Singapore (SAC-SINGLAS), Spain (ENAC), Sweden (SWEDAC), Switzerland (SAS), United Kingdom (UKAS) and United States (NVLAP) (ICBO ES)

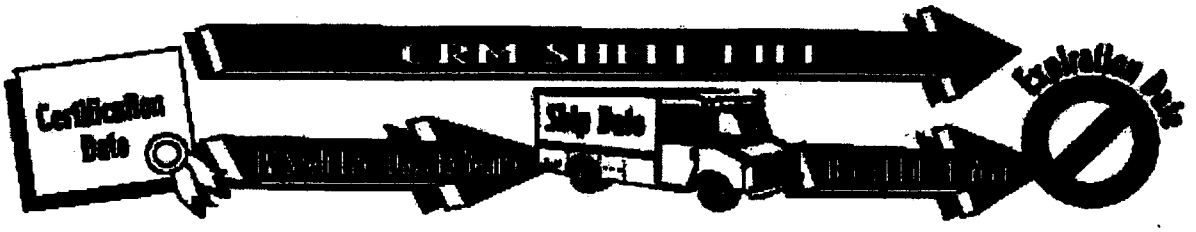
10.4 10CFR50 Appendix B - Nuclear Regulatory Commission - Domestic Licensing of Production and Utilization Facilities

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

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

INORGANIC LABS/RADCHEM LABS Pg. 2 of 2
DATE RECEIVED: 3/26/03
DATE EXPIRED: 4/01/2004
DATE OPENED: 3/28/03
INORG: 4026 PO: E52167

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY



11.1 IV Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies (P-SP01020) of chemically-stable solutions performed at Inorganic Ventures / IV Labs indicate a CRM shelf-life of four years for solutions packaged in 500-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

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

Certification Date: December 17, 2002

Expiration Date: EXPIRES 1 APR 2004

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Debbie Newman, QA Administrator	Debbie Newman
Certificate Approved By:	Katalin Le, QC Supervisor	Katalin Le
Certifying Officer:	Paul Gaines, Chemist, Senior Technical Director	Paul R Gaines

Certificate of Analysis

010763

CUSTOM-GRADE SOLUTION

1000 µg/mL Bismuth in 3.5% HNO_3 (abs)

Catalog Number: CGBI1-1 and CGBI1-5

Lot Number: **T-BI01087**

INORGANIC LABS/RADCHEM LABS
DATE RECEIVED: 8/1/02
DATE EXPIRED: 8/1/2003 PR
DATE OPENED: 8/1/02
INORG: 3606 PO: F52013

Starting Material:	Bismuth Metal
Starting Material Purity:	99.999%
Starting Material Lot No:	L13D09

CERTIFIED CONCENTRATION: 996 ± 3 µg/mL

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

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

($\bar{x}$) = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 1001 µg/mL
Method: Calculated, based on starting material.

Instrument Analysis: 996 ± 3 µg/mL (Average of 2 runs)
Method: Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3106.

TRACE METALLIC IMPURITIES DETERMINED BY ICP-MS AND ICP-OES IN µg/mL:

Custom-Grade solutions tested for trace metallic impurities by **ICP-MS** were analyzed in an **ULPA-Filtered Clean Room.**
An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	<0.020	M	Dy	<0.00060	M	Li	<0.0010	M	Pr	<0.000030	M	Te	<0.0030
M	Sb	<0.000050	M	Er	<0.00050	M	Lu	<0.000040	M	Re	<0.00010	M	Tb	<0.000030
M	As	<0.0010	M	Eu	<0.00030	M	Mg	<0.0030	M	Rh	<0.00010	M	Tl	<0.00010
M	Ba	<0.0010	M	Gd	<0.00010	M	Mn	<0.00040	M	Rb	<0.00010	M	Th	<0.00010
M	Be	<0.000050	M	Ga	<0.00010	O	Hg	<0.15	M	Ru	<0.00020	M	Tm	<0.000040
s	Bi		M	Ge	<0.00060	M	Mo	<0.00020	M	Sm	<0.00010	M	Sn	<0.00050
O	B	<0.020	M	Au	<0.00030	M	Nd	<0.00020	M	Sc	<0.0010	M	Ti	<0.0050
M	Cd	<0.00030	M	Hf	<0.00020	O	Ni	<0.010	O	Se	<0.20	M	W	<0.0010
O	Ca	<0.010	M	Ho	<0.000050	M	Nb	<0.000050	O	Si	<0.020	M	U	<0.00020
M	Ce	<0.00050	O	In	<0.030	n	Os		M	Ag	<0.00020	M	V	<0.00020
M	Cs	<0.000030	M	Ir	<0.00050	M	Pd	0.0020	O	Na	<0.050	M	Yb	<0.00010
M	Cr	<0.00050	O	Fe	<0.020	O	P	<0.050	M	Sr	<0.000050	M	Y	<0.0040
M	Co	<0.00030	M	La	<0.000050	M	Pt	<0.00020	n	S		M	Zn	<0.0020
M	Cu	<0.00060	M	Pb	0.020	n	K		M	Ta	<0.00070	M	Zr	<0.00050

M - checked by ICP-MS O - checked by ICP-OES i - spectral interference n - not checked for s - solution standard element

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 1.027 g/mL

(over)

QA:KL Rev.031402DN

Inorganic Ventures, Inc.
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Orders: 800-669-6799 • FAX (732) 901-1903
Technical Support: 800-569-6799

Paul R. Haines
Quality Assurance Manager

EXPIRES 1 Aug 2003

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

Pipette Calibrations

Book/Page: 03 007

010765

SwRI – Div. 01, Inorganic Labs' Fixed Volume Pipette Verification Log

(Space provide for Inorganic Laboratories' Fixed Volume Pipette Verification Spreadsheet)

4-29-03

SwRI - Div. 01, Inorganic Labs' Fixed Volume Pipette Spreadsheet

Eppendorf #	True Value (uL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
Lab30	1000	1.0229	1.0176	1.0118	1.02	101.74
TMA1	1000	0.9998	1.0189	1.0052	1.01	100.80
TMA2	1000	1.0112	1.0088	1.0156	1.01	101.19
TMA3	1000	1.0116	1.0110	1.0094	1.01	101.07
TMA6	1000	1.0067	1.0054	1.0041	1.01	100.54
TMB1	900	0.9111	0.9102	0.9089	0.91	101.12
TMC1	800	0.8018	0.8029	0.8013	0.80	100.25
TMDD1	750	0.7547	0.7530	0.7575	0.76	100.68
TMD1	700	0.7042	0.7018	0.7063	0.70	100.59
TMD2	700	0.7049	0.7073	0.7069	0.71	100.91
TME1	600	0.5963	0.5967	0.5946	0.60	99.31
TMF2	500	0.5020	0.5052	0.5000	0.50	100.48
TMF5	500	0.5067	0.5077	0.5018	0.51	101.08
ICF1	500	0.4989	0.4994	0.4978	0.50	99.74
L30-500	500	0.5018	0.5030	0.5011	0.50	100.39
TMG3	400	0.3988	0.3981	0.3987	0.40	99.63
TMH1	300	0.3021	0.3018	0.3043	0.30	100.91
TMH2	300	0.2985	0.2987	0.3028	0.30	100.00
TMJ1	250	0.2512	0.2508	0.2514	0.25	100.45
TMJ2	250	0.2530	0.2524	0.2518	0.25	100.96
TMJ3	250	0.2513	0.2501	0.2511	0.25	100.33
TMK2	200	0.2010	0.2000	0.2009	0.20	100.32
TML1	150	0.1532	0.1524	0.1531	0.15	101.93
TMM1	120	0.1222	0.1223	0.1225	0.12	101.94
TMN3	100	0.1014	0.1009	0.1002	0.10	100.83
ICN1	100	0.1016	0.1009	0.0999	0.10	100.80
TMQ1	80	0.0801	0.0809	0.0811	0.08	100.88
TMR1	70	NOT	FOUND			
TMS1	60	OUT	OF	SERVICE		
LAB-30A	50	0.0500	0.0500	0.0499	0.05	99.93
TMU1	40	0.0401	0.0400	0.0401	0.04	100.17
TMU2	40	0.0404	0.0398	0.0399	0.04	100.08
TMV1	30	0.0300	0.0299	0.0301	0.03	100.00
L30-20	20	0.0204	0.0203	0.0202	0.02	101.50
TMW1	25	0.0251	0.0249	0.0250	0.03	100.00
TMY1	15	0.0150	0.0149	0.0153	0.02	100.44

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SwRI - Div. 01, Inorganic Labs' Fixed Volume Pipette Verification Log 010766

Balance #: 16 Thermometer #: G011 diH20 Temperature (°C): 21

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
Lab30	1000	1.0229	1.0176	1.0118
TMA1	1000	.9998	1.0189	1.0052
TMA2	1000	1.0112	1.0088	1.0156
TMA3	1000	1.0116	1.0110	1.0094
TMA6	1000	1.0067	1.0054	1.0041
TMB1	900	.9111	.9102	.9089
TMC1	800	.8018	.8029	.8013
TMDD1	750	.7547	.7530	.7575
TMD1	700	.7042	.7018	.7063
TMD2	700	.7049	.7073	.7069
TME1	600	.5963	.5967	.5946
TMF2	500	.5020	.5052	.5000
TMF5	500	.5067	.5077	.5018
ICF1	500	.4989	.4994	.4978
L30-500	500	.5018	.5030	.5011
TMG3	400	.3988	.3981	.3987
TMH1	300	.3021	.3018	.3043
TMH2	300	.2985	.2987	.3028
TMJ1	250	.2512	.2508	.2514
TMJ2	250	.2530	.2524	.2518
TMJ3	250	.2513	.2501	.2511
TMK2	200	.2010	.2000	.2009
TML1	150	.1532	.1524	.1531
TMM1	120	.1222	.1223	.1225
TMN3	100	.1014	.1009	.1002
ICN1	100	.1016	.1009	.0999
TMQ1	80	.0801	.0809	.0811
TMR1	70	NOT	FOUND	
TMS1	60	OUT	OF	SERVICE
LAB-30A	50	.0500	.0500	.0499
TMU1	40	.0401	.0400	.0401
TMU2	40	.0404	.0398	.0399
TMV1	30	.0300	.0299	.0301
L30-20	20	.0204	.0203	.0202
TMW1	25	.0251	.0249	.0250
TMY1	15	.0150	.0149	.0153

Analyst: John Willis Date: 4-29-03

Reviewed by: [signature] Date: 05-09-03

FRM-243b (Rev 3/Mar 03)

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010767

SwRI – Div. 01, Inorganic Labs' Fixed Volume Pipette Verification Log

(Space provide for Inorganic Laboratories' Fixed Volume Pipette Verification Spreadsheet)

L.Wright 6/16/03

SwRI - Div. 01, Inorganic Labs' Fixed Volume Pipette Spreadsheet

Eppendorf #	True Value (uL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
Lab30	1000	1.0198	1.0199	1.0105	1.02	101.67
TMA1	1000	0.9941	0.9956	0.9959	1.00	99.52
TMA2	1000	1.0150	1.0081	1.0102	1.01	101.11
TMA3	1000	1.0069	1.0055	0.9982	1.00	100.35
TMA6	1000	1.0163	1.0101	1.0062	1.01	101.09
TMB1	900	0.9057	0.8988	0.8997	0.90	100.16
TMC1	800	0.7999	0.8001	0.8000	0.80	100.00
TMDD1	750	0.7475	0.7531	0.7511	0.75	100.08
TMD1	700	0.6928	0.6944	0.6960	0.69	99.20
TMD2	700	0.7073	0.7059	0.7081	0.71	101.01
TME1	600	0.6020	0.5982	0.5991	0.60	99.96
TMF2	500	0.4995	0.5002	0.5001	0.50	99.99
TMF5	500					
ICF1	500	0.5048	0.5056	0.5030	0.50	100.89
L30-500	500	0.4988	0.5013	0.5031	0.50	100.21
TMG3	400	0.4050	0.3962	0.3981	0.40	99.94
TMH1	300	0.3022	0.3019	0.3019	0.30	100.67
TMH2	300	0.2975	0.3001	0.2991	0.30	99.63
TMJ1	250	0.2482	0.2484	0.2491	0.25	99.43
TMJ2	250	0.2488	0.2497	0.2499	0.25	99.79
TMJ3	250	0.2509	0.2513	0.2508	0.25	100.40
TMK2	200	0.2018	0.2008	0.2016	0.20	100.70
TML1	150	0.1494	0.1495	0.1498	0.15	99.71
TMM1	120	0.1201	0.1204	0.1204	0.12	100.25
TMN3	100	0.0990	0.0990	0.0990	0.10	99.00
ICN1	100	0.1013	0.0999	0.0998	0.10	100.33
TMQ1	80	0.0802	0.0801	0.0801	0.08	100.17
TMR1	70					
TMS1	60					
LAB-30A	50	0.0499	0.0498	0.0494	0.05	99.40
TMU1	40	0.0396	0.0399	0.0398	0.04	99.42
TMU2	40	0.0400	0.0401	0.0401	0.04	100.17
TMV1	30	0.0298	0.0299	0.0299	0.03	99.56
L30-20	20	0.0199	0.0200	0.0200	0.02	99.83
TMW1	25	0.0248	0.0249	0.0250	0.02	99.60
TMY1	15	0.0149	0.0150	0.0149	0.01	99.56

FRM-246 (Rev 1/Mar 03)

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SwRI - Div. 01, Inorganic Labs' Fixed Volume Pipette Verification Log 010768

Balance #: 16834 Thermometer #: G-058 diH20 Temperature (°C): _____

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
Lab30	1000	1.0198	1.0199	1.0105 mw 6/1/03
TMA1	1000	0.9941	0.9956	0.9959
TMA2	1000	1.0150	1.0081	1.0102
TMA3	1000	1.0069	1.0055	0.9982
TMA6	1000	1.0163	1.0101	1.0062
TMB1	900	0.9057	0.8988	0.8997
TMC1	800	0.7999	0.8001	0.8000
TMDD1	750	0.7475	0.7531	0.7511
TMD1	700	0.6928	0.6944	0.6960
TMD2	700	0.7073	0.7059	0.7081
TME1	600	0.6020	0.5982	0.5991
TMF2	500	0.4995	0.5002	0.5001
TMF5	500	not found		
ICF1	500	0.5048	0.5056	0.5030
L30-500	500	0.4988	0.5013	0.5031
TMG3	400	0.4050	0.3962	0.3981
TMH1	300	0.3022	0.3019	0.3019
TMH2	300	mw 5/30/03 0.3975	0.4001 mw 5/30/03	0.2991
TMJ1	250	0.2482	0.2484	0.2491
TMJ2	250	0.2488	0.2497	0.2499
TMJ3	250	0.2509	0.2513	0.2508
TMK2	200	0.2018	0.2008	0.2016
TML1	150	0.1494	0.1495	0.1498
TMM1	120	0.1201	0.1204	0.1204
TMN3	100	0.0990	0.0990	0.0990
ICN1	100	0.1013	0.0999	0.0998
TMQ1	80	0.0802	0.0801	0.0801
TMR1	70	> not found.		
TMS1	60			
LAB-30A	50	0.0499	0.0498	0.0494
TMU1	40	0.0396	0.0399	0.0398
TMU2	40	0.0400	0.0401	0.0401
TMV1	30	mw 6/1/03 0.0499298	0.0200 99	mw 6/1/03 0.0200 99
L30-20	20	0.0199	0.0200	0.0200
TMW1	25	0.0248	0.0249	0.0250
TMY1	15	0.0149	0.0150	0.0149

Analyst: Laura Wright Date: 5/30/03

Reviewed by: Valerie Alfaro Date: 06/16/03

Book/page: 03 017

010763

SwRI – Div. 01, Inorganic Labs' Adjustable Volume Pipette Verification Log

(Space provided for Inorganic Laboratories' Adjustable Volume Pipette Verification Spreadsheet)

SwRI – Div. 01, Inorganic Laboratory Adjustable Pipette Verification Spreadsheet

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
	20	0.0200	0.0201	0.0200	0.020	100.17
ADJ200-A	100	0.0985	0.0988	0.0988	0.099	98.70
	200	0.1980	0.1983	0.1979	0.198	99.03
	20	0.0198	0.0199	0.0202	0.020	99.83
ADJ200-C	100	0.0987	0.0991	0.0990	0.099	98.93
	200	0.1992	0.1991	0.1994	0.199	99.62
	20	0.0195	0.0197	0.0199	0.020	98.50
ADJ200-D	100	0.0983	0.0987	0.0984	0.098	98.47
	200	0.1963	0.1982	0.1985	0.198	98.83
	20	0.0205	0.0202	0.0201	0.020	101.33
ADJ200-E	100	0.0991	0.0992	0.0990	0.099	99.10
	200	0.1983	0.1980	0.1986	0.198	99.15
	20	0.0202	0.0202	0.0202	0.020	101.00
ADJ200-G	100	0.0990	0.0989	0.0989	0.099	98.93
	200	0.1983	0.1980	0.1993	0.199	99.27
	20				~~0.000~~	0.00
ADJ200	100				0.000	0.00
	200				0.000	0.00
	20				0.000	0.00
ADJ200	100				0.000	0.00
	200				0.000	0.00
	20				0.000	0.00
ADJ200	100				0.000	0.00
	200				0.000	0.00
	20				0.000	0.00
ADJ200	100				0.000	0.00
	200				0.000	~~0.00~~
					~~0.000~~	0.00

5/28/03

Miriam Puckett 5/28/03

FRM-247a (Rev 2/Mar 03)

Book/page: 03 018

SwRI Div. 01 – Inorganic Laboratory Adjustable Pipette Verification Log 010770

Balance #: 34 Thermometer #: G011 diH20 Temperature (° C) 21

20 µL – 200 µL

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
	20	0.0200	0.0201	0.0200
ADJ200-A	100	0.0985	0.0988	0.0988
	200	0.1980	0.1983	0.1979
	20	0.0198	0.0199	0.0202
ADJ200-C	100	0.0987	0.0991	0.0990
	200	0.1992	0.1991	0.1994
	20	0.0195	0.0197	0.0199
ADJ200-D	100	0.0983	0.0987	0.0984
	200	0.1963	0.1982	0.1985
	20	0.0205	0.0202	0.0201
ADJ200-E	100	0.0991	0.0992	0.0990
	200	0.1983	0.1980	0.1986
	20	0.0199	0.0203	0.0219
ADJ200-G	100	0.0981	0.0956	0.0963
	200	0.1963	0.1951	0.1943
	20			
ADJ200	100			
	200			
	20			
ADJ200	100			
	200			
	20			
ADJ200	100			
	200			
	20			
ADJ200	100			
	200			

5/28/03

ADJ200-G corrected. See printout page at left for re-calibrated numbers.

Analyst: Miriam Puckett Date: 5/28/03

Reviewed by: Dana Wright Date: 6/9/03

Book/page: 03 069

010771

SwRI – Div. 01, Inorganic Labs' Adjustable Volume Pipette Verification Log

(Space provided for Inorganic Laboratories' Adjustable Volume Pipette Verification Spreadsheet)

SwRI – Div. 01, Inorganic Laboratory Adjustable Pipette Verification Spreadsheet

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
	100	0.0991	0.0988	0.0989	0.099	98.93
ADJ1000-C	500	0.4982	0.4905	0.4913	0.493	98.67
	1000	0.9949	0.9900	0.9872	0.991	99.07
	100	0.1008	0.1003	0.1010	0.101	100.70
ADJ1000-D	500	0.4966	0.5034	0.4924	0.497	99.49
	1000	0.9863	0.9888	0.9922	0.989	98.91
	100	0.1006	0.0998	0.0990	0.100	99.80
ADJ1000-E	500	0.4947	0.4947	0.4948	0.495	98.95
	1000	0.9965	0.9947	0.9932	0.995	99.48
	100	0.1015	0.1016	0.1007	0.101	101.27
ADJ1000-F	500	0.4958	0.4940	0.4957	0.495	99.03
	1000	0.9836	0.9821	0.9800	0.982	98.19
	100	0.1006	0.1009	0.1003	0.101	100.60
ADJ1000-G	500	0.4925	0.4923	0.4944	0.493	98.61
	1000	0.9813	0.9820	0.9809	0.981	98.14
	100	0.0985	0.0989	0.0989	0.099	98.77
ADJ1000-H	500	0.4931	0.4933	0.4913	0.493	98.51
	1000	0.9813	0.9830	0.9872	0.984	98.38
	100				0.000	0.00
ADJ1000	500				0.000	0.00
	1000				0.000	0.00
	100				0.000	0.00
ADJ1000	500				0.000	0.00
	1000				0.000	0.00
	100				0.000	0.00
ADJ1000	500				0.000	0.00
	1000				0.000	0.00

5/28/03

Miriam Juckett
5/28/03

Book/page: 03 070

SwRI Div. 01 – Inorganic Laboratory Adjustable Pipette Verification Log 010772

Balance #: 34 Thermometer #: G011 diH20 Temperature (° C) 21

100 µL – 1000 µL

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
	100	0.0991	0.0988	0.0989
ADJ1000-C	500	0.4982	0.4905	0.4913
	1000	0.9949	0.9900	0.9872
	100	0.1008	0.1003	0.1010
ADJ1000-D	500	0.4966	0.5034	0.4924
	1000	0.9863	0.9888	0.9922
	100	0.1006	0.0998	0.0990
ADJ1000-E	500	0.4947	0.4947	0.4948
	1000	0.9965	0.9947	0.9932
	100	0.1015	0.1016	0.1007
ADJ1000-F	500	0.4958	0.4940	0.4957
	1000	0.9836	0.9821	0.9800
	100	0.1006	0.1009	0.1003
ADJ1000-G	500	0.4925	0.4923	0.4944
	1000	0.9813	0.9820	0.9809
	100	0.0985	0.0989	0.0989
ADJ1000-H	500	0.4931	0.4933	0.4913
	1000	0.9813	0.9830	0.9872
	100			
ADJ1000	500			
	1000			
	100			
ADJ1000	500			
	1000			
	100			
ADJ1000	500			
	1000			

5/28/08

Analyst: M Puckett Date: 5/28/08

Reviewed by: Laura Wright Date: 6/9/08

Book/page: 03 121

010773

SwRI – Div. 01, Inorganic Labs' Adjustable Volume Pipette Verification Log

(Space provided for Inorganic Laboratories' Adjustable Volume Pipette Verification Spreadsheet)

SwRI – Div. 01, Inorganic Laboratory Adjustable Pipette Verification Spreadsheet

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
	500	0.5035	0.5027	0.5058	0.504	100.77
ADJ5000-C	2500	2.4895	2.4900	2.4828	2.484	99.37
	5000	4.9972	4.9938	4.9991	4.969	99.39
	500	0.4944	0.4970	0.4919	0.494	98.89
ADJ5000-G	2500	2.4589	2.4670	2.4691	2.465	98.60
	5000	4.9303	4.9371	4.9340	4.934	98.68
	500	0.4993	0.4959	0.5010	0.499	99.75
ADJ5000-H	2500	2.4774	2.4799	2.4839	2.480	99.22
	5000	4.9939	4.9792	4.9649	4.979	99.59
	500	0.5045	0.5029	0.5042	0.504	100.80
ADJ5000-I	2500	2.4870	2.4901	2.4755	2.487	99.50
	5000	4.9846	4.9599	4.9638	4.997	99.93
	500	0.5010	0.4994	0.5012	0.501	100.11
ADJ5000-J	2500	2.4984	2.4962	4.4907	3.162	126.47
	5000	5.0042	5.0018	5.0073	5.004	100.09
	500	0.5064	0.5108	0.5071	0.508	101.62
ADJ5000-K	2500	2.4873	2.4840	2.4877	2.486	99.45
	5000	4.9910	4.9839	4.9793	4.985	99.69
	500	0.4948	0.4932	0.4940	0.494	98.80
ADJ5000-L	2500	2.4867	2.4818	2.4902	2.486	99.45
	5000	4.9881	4.9846	5.0025	4.992	99.83
	500				0.000	0.00
ADJ5000	2500				0.000	0.00
	5000				0.000	0.00
	500				0.000	0.00
ADJ5000	2500				0.000	0.00
	5000				0.000	0.00
	500				0.000	0.00
ADJ5000	2500				0.000	0.00
	5000				0.000	0.00
	500				0.000	0.00
ADJ5000	2500				0.000	0.00
	5000				0.000	0.00

FRM-247c (Rev 2/Mar 03)

Miriam Puckett 8/28/03

Book/page: 03 122

SwRI Div. 01 – Inorganic Laboratory Adjustable Pipette Verification Log 010774

Balance #: 34 Thermometer #: G011 diH20 Temperature (° C) 21

500 µL – 5000 µL

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
	500	0.5035	0.5027	0.5058
ADJ5000-C	2500	2.4895	2.4900	2.4828
	5000	4.9972	4.9938	4.9991
	500	0.4944	0.4970	0.4919
ADJ5000-G	2500	2.4589	2.4670	2.4691
	5000	4.9303	4.9371	4.9340
	500	0.4993	0.4959	0.5010
ADJ5000-H	2500	2.4774	2.4799	2.4839
	5000	4.9939	4.9792	4.9649
	500	0.5045	0.5029	0.5042
ADJ5000-I	2500	2.4870	2.4901	2.4755
	5000	4.9846	4.9599	4.9638
	500	0.5010	0.4994	0.5012
ADJ5000-J	2500	2.4984	2.4962	4.4907
	5000	5.0042	5.0018	5.0073
	500	0.5064	0.5108	0.5071
ADJ5000-K	2500	2.4973	2.4840	2.4877
	5000	4.9910	4.9839	4.9793
	500	0.4948	0.4932	0.4940
ADJ5000-L	2500	mj 5/28/03 2.4867	2.4818	2.4902
	5000	4.9886	4.9846	5.0025
	500	0.4948		
ADJ5000	2500	mj 5/28/03 2.4867		
	5000	4.9886		
	500			
ADJ5000	2500			
	5000			
	500			
ADJ5000	2500			
	5000			
	500			
ADJ5000	2500			
	5000			

Analyst: Miriam Nuckolls Date: 5/28/03

Reviewed by: Laura Wright Date: 6/9/03

Book/page: 03 019

010775

SwRI – Div. 01, Inorganic Labs' Adjustable Volume Pipette Verification Log

(Space provided for Inorganic Laboratories' Adjustable Volume Pipette Verification Spreadsheet)

L. Wright 6/13/03

SwRI – Div. 01, Inorganic Laboratory Adjustable Pipette Verification Spreadsheet

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
	20	0.0199	0.0200	0.0197	0.020	99.33
ADJ200-A	100	0.0988	0.0987	0.0983	0.099	98.60
	200	0.1966	0.1968	0.1961	0.197	98.25
	20	0.0203	0.0204	0.0202	0.020	101.50
ADJ200-C	100	0.0992	0.0992	0.0993	0.099	99.23
	200	0.1996	0.1998	0.1996	0.200	99.83
	20	0.0199	0.0195	0.0199	0.020	98.83
ADJ200-D	100	0.0989	0.0998	0.0996	0.099	99.43
	200	0.1966	0.1960	0.1968	0.196	98.23
	20	0.0201	0.0202	0.0202	0.020	100.83
ADJ200-E	100	0.0990	0.0990	0.0995	0.099	99.17
	200	0.1984	0.1986	0.1988	0.199	99.30
	20	0.0197	0.0199	0.0198	0.020	99.00
ADJ200-G	100	0.0982	0.0983	0.0980	0.098	98.17
	200	0.2004	0.1993	0.2001	0.200	99.97
	20					
ADJ200	100					
	200					
	20					
ADJ200	100					
	200					
	20					
ADJ200	100					
	200					
	20					
ADJ200	100					
	200					

LW 6/13/03

FRM-247a (Rev 2/Mar 03)

Book/page: 03 020

SwRI Div. 01 – Inorganic Laboratory Adjustable Pipette Verification Log

010776

Balance #: 34 Thermometer #: 3271 diH20 Temperature (° C) _____

20 µL – 200 µL

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
	20	0.0199	0.0200	0.0197
ADJ200-A	100	0.0988	0.0987	0.0983
Lab 34	200	0.1966	0.1968	0.1961
	20	0.0203	0.0204	0.0202
ADJ200-C	100	0.0992	0.0992	0.0993
Lab 28	200	0.1996	0.1998	0.1996
	20	0.0199	0.0195	0.0199
ADJ200-D	100	0.0989	0.0998	0.0996
	200	0.1966	0.1960	0.1968
	20	0.0201	0.0202	0.0202
ADJ200-E	100	0.0990	0.0990	0.0995
	200	0.1984	0.1986	0.1988
	20	0.0197	0.0199	0.0198
ADJ200-G	100	0.0982	0.0983	0.0980
Lab 29	200	0.2004	0.1993	0.2001
	20			
ADJ200	100			
	200			
	20			
ADJ200	100			
	200			
	20			
ADJ200	100			
	200			
	20			
ADJ200	100			
	200			

LW 6/16/03

Analyst: Laura Wright Date: 6/16/03

Reviewed by: Valli Algin Date: 06/16/03

Book/page: 03 071

010777

SwRI – Div. 01, Inorganic Labs' Adjustable Volume Pipette Verification Log

(Space provided for Inorganic Laboratories' Adjustable Volume Pipette Verification Spreadsheet)

L.Wright 6/13/03

SwRI – Div. 01, Inorganic Laboratory Adjustable Pipette Verification Spreadsheet

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
	100	0.0990	0.0991	0.0993	0.099	99.13
ADJ1000-C	500	0.4902	0.4991	0.4956	0.495	98.99
	1000	0.9871	0.9832	0.9899	0.987	98.67
	100	0.1002	0.1004	0.1009	0.101	100.50
ADJ1000-D	500	0.4996	0.4984	0.4991	0.499	99.81
	1000	0.9905	0.9909	0.9871	0.990	98.95
	100	0.1002	0.1003	0.1002	0.100	100.23
ADJ1000-E	500	0.4956	0.4996	0.4987	0.498	99.59
	1000	1.0034	1.0066	1.0051	1.005	100.50
	100	0.1016	0.1009	0.1003	0.101	100.93
ADJ1000-F	500	0.4962	0.4899	0.4950	0.494	98.74
	1000	0.9831	0.9885	0.9889	0.987	98.68
	100	0.0987	0.1006	~~0.1006~~ .100	0.100	99.97
ADJ1000-G	500	0.4923	0.4940	0.4974 6/14/03	0.495	98.91
	1000	0.9854	0.9875	0.9870	0.987	98.66
	100	0.0981	0.0984	0.0987	0.098	98.40
ADJ1000-H	500	0.4906	0.4961	0.4904	0.492	98.47
	1000	0.9926	0.9896	0.9907	0.991	99.10
	100					
ADJ1000	500					
	1000					
	100					
ADJ1000	500					
	1000					
	100					
ADJ1000	500					
	1000					

LW 6/13/03

6/13/03 L.Wright

Book/page: 03 072

SwRI Div. 01 – Inorganic Laboratory Adjustable Pipette Verification Log

010778

Balance #: 34 Thermometer #: 3271 diH20 Temperature (° C) 22

100 µL – 1000 µL

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
	100	0.0990	0.0991	0.0993
ADJ1000-C	500	0.4902	0.4991	0.4956
	1000	0.9871	0.9832	0.9899
	100	0.1002	0.1004	0.1009
ADJ1000-D	500	0.4996	0.4984	0.4991
	1000	0.9905	0.9909	0.9871
	100	0.1002	0.1003	0.1002
ADJ1000-E	500	0.4956	0.4996	0.4987
Lab 34	1000	1.0034	1.0066	1.0051
	100	0.1016	0.1009	0.1003
ADJ1000-F	500	0.4962	0.4899	0.4950
	1000	0.9831	0.9885	0.9889
	100	0.0987	0.1006	0.1001
ADJ1000-G	500	0.4923	0.4940	0.4974
Lab 30	1000	0.9854	0.9875	0.9870
	100	0.0981	0.0984	0.0987
ADJ1000-H	500	0.4906	0.4961	0.4904
Lab 28	1000	0.9926	0.9896	0.9907
	100			
ADJ1000	500			
	1000			
	100			
ADJ1000	500			
	1000			
	100			
ADJ1000	500			
	1000			

LW 6/6/03

Analyst: Laura Wright Date: 6/6/03

Reviewed by: Valen Alfin Date: 06/16/03

Book/page: 03 123

010779

SwRI – Div. 01, Inorganic Labs' Adjustable Volume Pipette Verification Log

(Space provided for Inorganic Laboratories' Adjustable Volume Pipette Verification Spreadsheet)

V.W Wright 6/13/03

SwRI – Div. 01, Inorganic Laboratory Adjustable Pipette Verification Spreadsheet

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
	500	0.5051	0.5025	0.5032 2nd 6/14/03	0.504	100.75
ADJ5000-C	2500	2.4899	2.4891	2.4886	2.489	99.57
	5000	4.9966	4.9919	4.9902	4.993	99.86
	500	0.5000	0.4999	0.4999	0.500	99.99
ADJ5000-G	2500	2.5167	2.5092	2.5161	2.514	100.56
	5000	5.0550	5.0439	5.0527	5.051	101.01
	500	0.4997	0.5001	0.4992	0.500	99.93
ADJ5000-H	2500	2.4889	2.4766	2.4980	2.488	99.51
	5000	5.0468	5.0439	5.0399	5.044	100.87
	500	0.5034	0.5036	0.5010	0.503	100.53
ADJ5000-I	2500	2.4797	2.4890	2.4762	2.482	99.27
	5000	5.0412	5.0089	5.0105	5.020	100.40
	500	0.5009	0.5009	0.5001	0.501	100.13
ADJ5000-J	2500	2.4875	2.4871	2.4860	2.487	99.47
	5000	5.0071	5.0010	5.0011	5.003	100.06
	500	0.5094	0.5056	0.5099	0.508	101.66
ADJ5000-K	2500	2.4990	2.4957	2.4985	2.498	99.91
	5000	5.0806	5.0209	5.0499	5.050	101.01
	500	0.4900 20	0.4963	0.4943	0.494	98.71
ADJ5000-L	2500	2.4677 6/14/03	2.4753	2.4666	2.470	98.79
	5000	4.9674	4.9790	4.9645	4.970	99.41
	500					
ADJ5000	2500					
	5000					
	500					
ADJ5000	2500					
	5000					
	500					
ADJ5000	2500					
	5000					
	500					
ADJ5000	2500					
	5000					

FRM-247c (Rev 2/Mar 03)

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010780

SwRI Div. 01 – Inorganic Laboratory Adjustable Pipette Verification Log

Balance #: 34 Thermometer #: 3271 diH20 Temperature (° C) 22

500 µL – 5000 µL

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
	500	0.5051	0.5025	0.5032
ADJ5000-C	2500	2.4899	2.4891	2.4886
	5000	4.9966	4.9919	4.9902
	500	0.5000	0.4999	0.4999
ADJ5000-G	2500	2.5167	2.5092	2.5161
Lab 28	5000	5.0550	5.0439	5.0527
	500	0.4997	0.5001	0.4992
ADJ5000-H	2500	2.4889	2.4766	2.4980
Lab 34	5000	5.0468	5.0439	5.0399
	500	0.5034	0.5036	0.5010
ADJ5000-I	2500	2.4797	2.4890	2.4762
Lab 28	5000	5.0412	5.0089	5.0105
	500	0.5009	0.5009	0.5001
ADJ5000-J	2500	2.4875	2.4871	2.4860
	5000	5.0071	5.0010	5.0011
	500	0.5094	0.5056	0.5099 6/16/03
ADJ5000-K	2500	2.4990	2.4957	2.4985 6/16/03
Lab 30	5000	5.0806	5.0209 6/16/03	5.0499
	500	0.4920	0.4963	0.4943
ADJ5000-L	2500	2.4677	2.4753	2.4666
Lab 29	5000	4.9674	4.9790	4.9645
	500			
ADJ5000	2500			
	5000			
	500			
ADJ5000	2500			
	5000			
	500			
ADJ5000	2500			
	5000			
	500			
ADJ5000	2500			
	5000			

Analyst: Dawna Wright Date: 6/6/03

Reviewed by: Valerie Alfaro Date: 06/16/03

Book/page: 03 021

010781

SwRI – Div. 01, Inorganic Labs' Adjustable Volume Pipette Verification Log

(Space provided for Inorganic Laboratories' Adjustable Volume Pipette Verification Spreadsheet)

6-13-03

SwRI – Div. 01, Inorganic Laboratory Adjustable Pipette Verification Spreadsheet

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
	20	0.0201	0.0204	0.0202	0.020	101.17
ADJ200-A	100	0.0990	0.0994	0.0987	0.099	99.03
	200	0.1986	0.1988	0.1985	0.199	99.32
	20	0.0201	0.0202	0.0201	0.020	100.67
ADJ200-C	100	0.1005	0.1002	0.0995	0.100	100.07
	200	0.2014	0.2009	0.2036	0.202	100.98
	20	0.0201	0.0201	0.0200	0.020	100.33
ADJ200-D	100	0.1004	0.0998	0.0996	0.100	99.93
	200	0.2000	0.1999	0.1990	0.200	99.82
	20	0.0203	0.0200	0.0204	0.020	101.17
ADJ200-E	100	0.1016	0.1019	0.1011	0.102	101.53
	200	0.2015	0.2021	0.2020	0.202	100.93
	20	0.0203	0.0202	0.0202	0.020	101.17
ADJ200-G	100	0.0993	0.0996	0.0994	0.099	99.43
	200	0.1992	0.1996	0.1996	0.199	99.73
	20					
ADJ200	100					
	200					
	20					
ADJ200	100					
	200					
	20					
ADJ200	100					
	200					
	20					
ADJ200	100					
	200					

Book/page: 03 022

SwRI Div. 01 – Inorganic Laboratory Adjustable Pipette Verification Log

010782

Balance #: 34 Thermometer #: 3271 diH20 Temperature (° C) _____

20 µL – 200 µL

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
	20	0201	.0204	.0202
ADJ200-A	100	.0990	.0994	.0987
Lab 34	200	.1986	.1988	.1985
	20	.0201	.0202	.0201
ADJ200-C	100	.1005	.1002	.0995
	200	.2014	.2009	.2036
	20	.0201	.0201	.0200
ADJ200-D	100	.1004	.0998	.0996
	200	.2000	.1999	.1990
	20	.0203	.0200	.0204
ADJ200-E	100	.1016	.1019	.1011
	200	.2015	.2021	.2020
	20	.0203	.0202	.0202
ADJ200-G	100	.0993	.0996	.0994
	200	.1992	.1996	.1996
	20			
ADJ200	100			
	200			
	20			
ADJ200	100			
	200			
	20			
ADJ200	100			
	200			
	20			
ADJ200	100			
	200			

Analyst: John Wilder Date: 6-13-03

Reviewed by: Nader Afshar Date: 06/13/03

Book/page: 03 073

010783

SwRI – Div. 01, Inorganic Labs' Adjustable Volume Pipette Verification Log

(Space provided for Inorganic Laboratories' Adjustable Volume Pipette Verification Spreadsheet)

6-13-03

SwRI – Div. 01, Inorganic Laboratory Adjustable Pipette Verification Spreadsheet

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
	100	0.1008	0.1015	0.1008	0.101	101.03
ADJ1000-C	500	0.4935	0.4914	0.4880	0.491	98.19
	1000	0.9910	0.9911	0.9922	0.991	99.14
	100	0.0986	0.1007	0.1010	0.100	100.10
ADJ1000-D	500	0.5080	0.5027	0.4985	0.503	100.61
	1000	0.9877	0.9864	0.9904	0.988	98.82
	100	0.1001	0.1000	0.1005	0.100	100.20
ADJ1000-E	500	0.4989	0.4989	0.4969	0.498	99.65
	1000	1.0025	1.0092	1.0005	1.004	100.41
	100	0.1018	0.1019	0.1021	0.102	101.93
ADJ1000-F	500	0.5098	0.5074	0.5063	0.508	101.57
	1000	1.0153	1.0091	1.0088	1.011	101.11
	100	0.1018	0.1008	0.1011	0.101	101.23
ADJ1000-G	500	0.4938	0.4944	0.4942	0.494	98.83
	1000	0.9844	0.9861	0.9860	0.986	98.55
	100	0.0991	0.1018	0.1018	0.101	100.90
ADJ1000-H	500	0.4987	0.4967	0.5032	0.500	99.91
	1000	0.9989	0.9978	0.9891	0.995	99.53
	100					
ADJ1000	500					
	1000					
	100					
ADJ1000	500					
	1000					
	100					
ADJ1000	500					
	1000					

6-13-03

FRM-247b (Rev 1/Sept 02)

Book/page: 03 074

SwRI Div. 01 – Inorganic Laboratory Adjustable Pipette Verification Log 010784

Balance #: 34 Thermometer #: 3271 diH20 Temperature (° C) 22

100 µL – 1000 µL

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
	100	.1008	.1015	.1008
ADJ1000-C	500	.4935	.4914	.4880
	1000	.9910	.9911	.9922
	100	.0986	.1007	.1010
ADJ1000-D	500	.5080	.5027	.4985
	1000	.9877	.9864	.9904
	100	0.1001	0.1000	0.1005
ADJ1000-E	500	0.4989	0.4989	0.4969
lab 34	1000	1.0025	1.0092	1.0005
	100	.1018	.1019	.1021
ADJ1000-F	500	.5098	.5074	.5063
	1000	1.0153	1.0091	1.0088
	100	.1018	.1008	.1011
ADJ1000-G	500	.4938	.4944	.4942
	1000	.9844	.9861	.9860
	100	.0991	.1018	.1018
ADJ1000-H	500	.4987	.4967	.5032
	1000	.9989	.9978	.9891
	100			
ADJ1000	500			
	1000			
	100			
ADJ1000	500			
	1000			
	100			
ADJ1000	500			
	1000			

JW 6/13/03

John Wilks

Analyst: (Laura Wright) ADJ1000-E only Date: 6-13-03

Reviewed by: Valerie Alfon Date: 06/16/03

Book/page: 03 125

010785

SwRI – Div. 01, Inorganic Labs' Adjustable Volume Pipette Verification Log

(Space provided for Inorganic Laboratories' Adjustable Volume Pipette Verification Spreadsheet)

SwRI – Div. 01, Inorganic Laboratory Adjustable Pipette Verification Spreadsheet

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)	Avg Wt (g)	% of True Value
	500	0.5088	0.4991	0.4999	0.503	100.52
ADJ5000-C	2500	2.5149	2.5179	2.5148	2.516	100.63
	5000	5.0470	5.0177	5.0203	5.028	100.57
	500	0.4987	0.5003	0.5008	0.500	99.99
ADJ5000-G	2500	2.4998	2.4976	2.4946	2.497	99.89
	5000	5.0409	5.0389	5.0149	5.032	100.63
	500	0.5024	0.5048	0.5035	0.504	100.71
ADJ5000-H	2500	2.4933	2.4976	2.4980	2.496	99.85
	5000	5.0436	5.0032	5.0137	5.020	100.40
	500	0.5080	0.5080	0.5060	0.507	101.47
ADJ5000-I	2500	2.5116	2.5182	2.5048	2.512	100.46
	5000	5.0419	5.0331	5.0146	5.030	100.60
	500	0.5120	0.5087	0.5074	0.509	101.87
ADJ5000-J	2500	2.5135	2.5138	2.5089	2.512	100.48
	5000	5.0489	5.0376	5.0329	5.040	100.80
	500	0.5060	0.5068	0.5068	0.507	101.31
ADJ5000-K	2500	2.4893	2.4908	2.4842	2.488	99.52
	5000	4.9871	4.9852	4.9817	4.985	99.69
	500	0.4963	0.4956	0.4961	0.496	99.20
ADJ5000-L	2500	2.4863	2.4850	2.4866	2.486	99.44
	5000	4.9970	4.9710	4.9988	4.989	99.78
	500					
ADJ5000	2500					
	5000					
	500					
ADJ5000	2500					
	5000					
	500					
ADJ5000	2500					
	5000					
	500					
ADJ5000	2500					
	5000					

FRM-247c (Rev 2/Mar 03)

Book/page: 03 126

SwRI Div. 01 – Inorganic Laboratory Adjustable Pipette Verification Log

010786

Balance #: 34 Thermometer #: 3271 diH20 Temperature (° C) 21

500 µL – 5000 µL

Eppendorf #	True Value (µL)	1st Reading (g)	2nd Reading (g)	3rd Reading (g)
	500	.5088	.4991	.4999
ADJ5000-C	2500	2.5149	2.5179	2.5148
	5000	5.0470	5.0177	5.0203
	500	.4987	.5003	.5008
ADJ5000-G	2500	2.4998	2.4976	2.4946
	5000	5.0409	5.0389	5.0149
	500	.5024	.5048	.5035
ADJ5000-H	2500	2.4933	2.4976	2.4980
	5000	5.0436	5.0032	5.0137
	500	.5080	.5080	.5060
ADJ5000-I	2500	2.5116	2.5182	2.5048
	5000	5.0419	5.0331	5.0146
	500	.5120	.5087	.5074
ADJ5000-J	2500	2.5135	2.5138	2.5089
	5000	5.0489	5.0376	5.0329
	500	.5060	.5068	.5068
ADJ5000-K	2500	2.4893	2.4908	2.4842
	5000	4.9871	4.9852	4.9817
	500	.4963	.4956	.4961
ADJ5000-L	2500	2.4863	2.4850	2.4866
	5000	4.9970	4.9710	4.9988
	500			
ADJ5000	2500			
	5000			
	500			
ADJ5000	2500			
	5000			
	500			
ADJ5000	2500			
	5000			
	500			
ADJ5000	2500			
	5000			

Jew 6-13-03

Analyst: John Wilker Date: 6-13-03

Reviewed by: [signature] Date: 06/16/03

FRM-244 (c) (Rev 3/Mar 03)

010787

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

Balance Calibrations

Southwest Research Institute
Division 01

BALANCE VERIFICATION LOG

BALANCE #	LAB #:	SERIAL #:	TOLERANCE:	COMMENTS:
16	28	P37987	±0.0005	
Date	Std Wt (g)	Recorded Wt (g)	Operator	
05/18/03	2.0000	2.0000	T. O'Brien	SN:99-J50526-15
5/19/03	2.0000	2.0000	MW	"
5-20-03	2-0000	2.0000	JW	"
5/21/03	2.0000	2.0000	MW	"
5/22/03	2.0000	2.0000	MW	"
5/23/03	2.0000	2.0000	MW	"
5-27-03	2-0000	2-0000	JW	"
5-28-03	2.0000	2.0001	JW	"
5/29/03	2.0000	2.0000	MW	"
5-30-03	2.0000	2.0000	JW	"

If balance is out of limits, clean the balance and re-calibrate using Class "S" weights.
If balance is still out of limits, place a "DO NOT USE" sign on it and call (x5896) for service.

FRM-112 (Rev 1/Dec 99)

6-16-03

010788

Southwest Research Institute
Division 01

BALANCE VERIFICATION LOG

BALANCE #	LAB #:	SERIAL #:	TOLERANCE:	COMMENTS:
16	28	P37987	±0.0005	
Date	Std Wt (g)	Recorded Wt (g)	Operator	SN: 99-J5D52616
5/31/03	2.0000	2.0000	LW	"
6/01/03	2.0000	2.0000	LW	"
6/02/03	2.0000	2.0000	LW	"
6/03/03	2.0000	2.0000	LW	"
6/4/03	2.0000	2.0000	JR	"
6/5/03	2.0000	2.0000	LW	"
6/6/03	2.0000	2.0000	LW	"
6/7/03	2.0000	2.0000	LW	"
6/9/03	2.0000	2.0000	LW	"
6-10-03	2.0000	1.9999	[illegible]	-

If balance is out of limits, clean the balance and re-calibrate using Class "S" weights.
If balance is still out of limits, place a "DO NOT USE" sign on it and call (x5896) for service.

6-16-03

FRM-112 (Rev 1/Dec 99)

010783

Southwest Research Institute
Division 01

BALANCE VERIFICATION LOG

BALANCE #	LAB #:	SERIAL #:	TOLERANCE:	COMMENTS:
16	28	P37987	±0.0005	
Date	Std Wt (g)	Recorded Wt (g)	Operator	
6-11-03	2.0000	2.0000	JW	SN-99-J50526-15
6/12/03	2.0000	2.0000	MW	"
6.13.03	2.0000	2.0000	JW	"
6/16/03	2.0000	2.0001	MW	"
6-17-03	2.0000	2.0000	JW	"
6-18-03	2.0000	2.0000	JW	"
6/19/03	2.0000	2.0000	MW	"
6/20/03	2.0000	2.0000	MW	"
6.23.03	2.0000	2.0001	JW	"
6.24.03	2.0000	2.0000	JW	"

If balance is out of limits, clean the balance and re-calibrate using Class "S" ~~weights~~.
If balance is still out of limits, place a "DO NOT USE" sign on it and call (x5896) for service.

Richard Hardy
6/26/03

010790

Southwest Research Institute
Division 01

BALANCE VERIFICATION LOG

BALANCE #	LAB #:	SERIAL #:	TOLERANCE:	COMMENTS:
19	28	0068597	±0.05	
Date	Std Wt (g)	Recorded Wt (g)	Operator	
5-20-03	10.00	10.00	Jew	SN: 99J50624-6
5/21/03	10.00	10.00	MW	"
5/22/03	10.00	10.00	MW	"
5/23/03	10.00	10.01	MW (JR)	SN: 99J50624-5
5-27-03	10.00	10.00	Jew	" -6
5-28-03	10.00	10.00	Jew	" -6
5/29/03	10.00	10.01	MW	SN: 99J50624-6
5-30-03	10.00	10.00	Jew	"
5/31/03	10.00	10.00	MW	"
6/01/03	10.00	10.00	MW	"

If balance is out of limits, clean the balance and re-calibrate using Class "S" weights.
If balance is still out of limits, place a "DO NOT USE" sign on it and call (x5896) for service.

FRM-112 (Rev 1/Dec 99)

6-16-03

010791

Southwest Research Institute
Division 01

BALANCE VERIFICATION LOG

BALANCE #	LAB #:	SERIAL #:	TOLERANCE:	COMMENTS:
19	28	0068597	±0.05	
Date	Std Wt (g)	Recorded Wt (g)	Operator	
6/02/03	10.00	10.00	MW	SN:99-350624-6
6/03/03	10.00	10.00	MW	"
6/4/03	10.00	10.00	LR	"
6/5/03	10.00	10.00	MW	"
6/6/03	10.00	10.00	MW	"
6/7/03	10.00	10.00	MW	"
6/9/03	10.00	10.00	MW	"
6-10-03	10.00	10.00	[illegible]	"
6-11-03	10.00	10.00	[illegible]	"
6/12/03	10.00	10.00	MW	"

If balance is out of limits, clean the balance and re-calibrate using Class "S" weights.
If balance is still out of limits, place a "DO NOT USE" sign on it and call (x5896) for service.

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010792

Southwest Research Institute
Division 01

BALANCE VERIFICATION LOG

BALANCE #	LAB #:	SERIAL #:	TOLERANCE:	COMMENTS:
19	28	0068597	±0.05	
Date	Std Wt (g)	Recorded Wt (g)	Operator	
6-13-03 6/16/03	10.00	10.00		SN: 99-550624-6
6/17/03	10.00	10.01	MW	"
6-17-03	10.00	10.00		"
6-18-03	10.00	10.00		"
6/19/03	10.00	10.00	MW	"
6/20/03	10.00	10.00	MW	"
6-23-03	10.00	10.00		"
6-24-03	10.00	10.00		"
6-25-03	10.00	10.00		"
6-26-03	10.00	10.00		"

If balance is out of limits, clean the balance and re-calibrate using Class "S" weights.
If balance is still out of limits, place a "DO NOT USE" sign on it and call (x5896) for service.

FRM-112 (Rev 1/Dec 99)

6/26/03

010793

Southwest Research Institute
Division 01

BALANCE VERIFICATION LOG

BALANCE #	LAB #:	SERIAL #:	TOLERANCE:	COMMENTS:
34	28	1116031935	±0.0005	
Date	Std Wt (g)	Recorded Wt (g)	Operator	
5/19/03	2.0000	2.0000	MW	SN: 99-J50526-15
5-20-03	2.0000	2.0001	JW	"
5/21/03	2.0000	2.0000	MW	"
5/22/03	2.0000	2.0000	MW	"
5/23/03	2.0000	2.0000	MW	"
5-27-03	2.0000	2.0000	JW	"
5-28-03	2.0000	2.0000	JW	"
5/29/03	2.0000	2.0000	MW	"
5-30-03	2.0000	2.0000	JW	"
5/31/03	2.0000	2.0000	MW	"

If balance is out of limits, clean the balance and re-calibrate using Class "S" weights.
If balance is still out of limits, place a "DO NOT USE" sign on it and call (x5896) for service.

FRM-112 (Rev 1/Dec 99)

6-16-03

010791

Southwest Research Institute
Division 01

BALANCE VERIFICATION LOG

BALANCE #	LAB #:	SERIAL #:	TOLERANCE:	COMMENTS:
34	28	1116031935	±0.0005	
Date	Std Wt (g)	Recorded Wt (g)	Operator	
6/01/03	2.0000	2.0000	LW	SN: 99-J50526-15
6/02/03	2.0000	2.0001	LW	"
6/02/03	2.0000	2.0000	LW	"
6/3/03	2.0000	2.0000	LW	"
6/4/03	2.0000	2.0000	JR	"
6/5/03	2.0000	2.0000	LW	"
6/6/03	2.0000	2.0000	LW	"
6/7/03	2.0000	2.0000	LW	"
6/9/03	2.0000	2.0000	LW	"
6-11-03	2.0000	2.0001	JW	"

If balance is out of limits, clean the balance and re-calibrate using Class "S" weights.
If balance is still out of limits, place a "DO NOT USE" sign on it and call (x5896) for service.

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DL 6-16-03

FRM-112 (Rev 1/Dec 99)

010795

Southwest Research Institute
Division 01

BALANCE VERIFICATION LOG

BALANCE #	LAB #:	SERIAL #:	TOLERANCE:	COMMENTS:
34	28	1116031935	±0.0005	
Date	Std Wt (g)	Recorded Wt (g)	Operator	
6-11-03	2.0000	2.0000		SN=99-J50526-15
6/12/03	2.0000	2.0000	MW	"
6-13-03	2.0000	2.0000		"
6/13/03 6/14/03	2.0000	1.9999	MW	"
6-17-03	2.0000	2.0000		"
6-18-03	2.0000	1.9999		"
6/19/03	2.0000	2.0000	MW	"
6/20/03	2.0000	2.0000	MW	"
6/22/03	2.0000	2.0000		"
6-23-03	2.0000	1.9999		"

If balance is out of limits, clean the balance and re-calibrate using Class "S" weights.
If balance is still out of limits, place a "DO NOT USE" sign on it and call (x5896) for service.

√ ams
6/24/03

010796

010797

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

DI Water Verification

D.I. WATER SYSTEM NOTEBOOK 01-025
METALS LAB # 010798
SOUTHWEST RESEARCH INSTITUTE

DATE	INITIALS	READING (M OHMS)	SET PT./ QC LT. Green=OK	CALL FOR Service LT. Green=OK	USAGE (GALS)	COMMENTS
5/7/03	DR	18.0	✓	✓	49890.0	7:06 p.m
5/8/03	DR	18.0	✓	✓	49901.9	7:45 p.m.
5/9/03	DR	18.0	✓	✓	49913.7	7.00 pm.
5/12/03	DR	18.0	✓	✓	49932.6	8:52 p.m.
5/13/03	DR	18.0	✓	✓	49946.1	6:46 p.m.
5/14/03	DR	18.0	✓	✓	49960.9	5:35 p.m.
5/15/03	DR	18.0	✓	✓	49977.2	6:20 p.m.
5/16/03	DR	18.0	✓	✓	49989.1	6:05 pm
5/19/03	DR	18.0	✓	✓	50004.4	7:23 p.m.
5/20/03	DR	18.0	✓	✓	50034.8	9:50 pm
5/21/03	DR	18.0	✓	✓	50050.9	6:50 pm
5/22/03	DR	18.0	✓	✓	50068.8	7:26 pm
—	—	— Reviewed By R&S				5/22/03 —
5/23/03	DR	18.0	✓	✓	50079	5:35 pm
5/27/03	DR	18.0	✓	✓	50084.0	7:19 p.m.
5/28/03	DR	18.0	✓	✓	50094.5	6:41 pm
5/29/03	DR	18.0	✓	✓	50106.6	6:20 p.m.
5/30/03	DR	18.0	✓	yellow	50121.4	6:42 p.m. Red Rag P.O.
6/2/03	DR	18.0	✓	yellow	50136.8	6 p.m. U.S. Filter called.
6/3/03	DR	18.0	✓	✓	50140.3	tank exchange. Back on line 11:30 a.m.
6/4/03	DR	18.0	✓	✓	50159.0	6.36 p.m.
6/5/03	DR	18.0	✓	✓	50180.4	8:06 pm.
6/6/03	DR	18.0	✓	✓	50193.7	8:01 p.m
6/9/03	DR	18.0	✓	✓	50218.3	10:26 p.m.
6/10/03	DR	18.0	✓	✓	50227.7	5:20 pm
6/11/03	DR	18.0	✓	✓	50238.6	5:48 p.m.
6/12/03	DR	18.0	✓	✓	50251.9	6:04 pm
6/13/03	DR	18.0	✓	✓	50258.9	3 p.m.
6/15/03	DR	18.0	✓	✓	50258.9	6.01pm. Water off? Why?
	Power Breaker Feeding DI WATER SYSTEM				FLIPPED DOWN reset. DR 6/16/03	
6/16/03	DR	18.0	✓	✓	50259.3	8:30 A.M.
—	—	— Reviewed by R Spurr			6/16/03	—
6/17/03	DR	18.0	✓	✓	50274.0	7:32 pm
6/18/03	DR	18.0	✓	✓	50288.9	6:40 p.m.

R Spurr 6/20/03

010799

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

SURVEILLANCE REPORTS
From Division 30